MICROFILMED

764001

*Reg. Office:*
2nd Floor, 138-140 FLINDERS STREET,
MELBOURNE, VICTORIA, AUSTRALIA, 3000
Telephones: 63 4759, 63 4750

Our Ref: CPB:LYW

26th May, 1972

Mr. J.G. Symons
Director of Mines
Department of Mines
G.P.O. Box 124B
HOBART, TAS. 7001

Dear Sir,

re: Application for Renewal of E.L. 47/71

With reference to our letter dated 18th May, 1972, please find enclosed a detailed account of the work completed within the Exploration Licence during the first six months and also that carried out over the Queen Hill Lease in support of our application for renewal of E.L. 47/71.

Our future programme will be to continue to investigate the cassiterite mineralization encountered within the Exploration Licence, by both geological mapping and drilling. It is also intended to look closely at the possibility of using geophysics.

Yours faithfully,
GIPPSLAND MINERALS N.L.

C. P. BARNES
Chief Geologist

Enclosure

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OPEN FILE

# GEOLOGICAL REPORT ON THE QUEEN HILL AREA AND E.L. 47/71

ZEEHAN, TASMANIA

MAY, 1972

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## SUMMARY

To date, eighteen drill holes have been completed on the Queen Hill prospect, and extensive geological mapping has been carried out in the surrounding area.

Assessment of all data from surface mapping and sampling, and drilling results, has indicated that much of the cassiterite bearing ore on Queen Hill occurs in the form of either a single tabloid or as two separate lenses. Future drilling on Queen Hill will be designed to test which of these alternatives is correct.

The tabloid (or lenses) plunges steeply to the north, and may in part be controlled by north plunging folds in the surrounding sediments.

To date, inferred ore reserves stand at approximately 600,000 tons at 1.6% tin and 200,000 tons at 0.8% tin, 4.14 oz/ton silver and 3.45% lead.

## INTRODUCTION

The township of Zeehan is situated on the west coast of Tasmania, and has a population of approximately 2,000 people. Rainfall averages 100 inches a year, and thick scrub covers much of the area; the topography is hilly to mountainous. Power is readily available in Zeehan and a work force could easily be found.

The Zeehan field was worked principally between 1887 and 1913 as a silver-lead field, the silver-lead occuring as lenses and shoots within epigenetic fissure lodes. Most mines closed down due to the fact that the silver-lead shoots generally died out at 200 feet to 300 feet below the surface; water pumping problems, treatment difficulties and bad management also contributed to the closure.

The Montana Silver-Lead Mine was worked intermittently until 1958, also the Oceana Silver-Lead Mine was re-opened in 1950 and worked until 1960. The Spray Mine has twice been pumped out in the last twenty years, however, no workable ore was found.

Prior to 1905, the northern end of Queen Hill was worked from adits and the Queen No. 4 shaft. Between 1905 and 1972 some adits were extended by tributors, the main work being carried out by Placer Prospecting Pty. Ltd. between 1963 and 1965. Placer extended adit No. 6 (Queen Hill) and cleared many of the other adits on Queen Hill which were blocked.

The Bureau of Mineral Resources conducted several geophysical surveys in the Zeehan area in 1954, 1963 and 1964; geophysical anomalies were picked up over Clarke's Lode and Taylor's Lode on Queen Hill as a result of one of these surveys.

Placer Prospecting Pty. Ltd. drilled two holes into Queen Hill (1963-1964), apparently in order to investigate the slate-spilite contact. Neither hole showed significant mineralization.

Gippsland Minerals N.L. acquired options on the 40 acre Queen Hill lease, the 10 acre Town lease and the 10 acre Golf Course lease, from the leaseholder, Mr. D. Dunkley, in 1970. In 1971, a joint venture agreement was arrived at with Cominco Exploration Pty. Ltd., and in December 1971 Gippsland Minerals N.L. was granted an additional exploration area of 5.2 square miles, by the Tasmanian Mines Department. This new exploration area covers all the ground surrounding Queen Hill.

Mineralization intersected during the early Gippsland Minerals N.L. drilling (1970-1971) has been successfully expanded during the present drilling programme.

Further drilling on Queen Hill will be designed to expand the mineralization already intersected; future drilling in the area surrounding Queen Hill will be designed to investigate other possible tin bearing occurrences.

006

006

ZEEHAN - GRANVILLE ROAD

Creek

Shampoo

Machinery Site
Montana
No Ltd.

E.L. 47/71

Creek

Creek

Ben

Big

Barnett

BOUNDARY OF EXPLORATION LICENCE AREA E.L. 47/71

DUNKLEYS TRAMWAY

Montana Hill

CONSD. LEASE
36M/62 40
D. Dunkley
M.L.

Queen Hill

MAIN ST. ZEEHAN

Zeehan Rivulet

PLAN OF ZEEHAN AREA
SHOWING BOUNDARY OF E.L. 47/71

SCALE 20 CHAINS TO 1 INCH

5 cm

764007

# GEOLOGY OF THE QUEEN HILL AREA

## (A) REGIONAL GEOLOGICAL SETTING

The Queen Hill - Montana Hill area lies in the south-eastern corner of a large block of early Cambrian slates and quartzites of the Heemskirk anticlinorium. The south-east corner of this block, which is largely fault bounded, abuts against Cambrian to Devonian sediments of the Zeehan syncline.

The Heemskirk granite batholith (Devonian) lies five miles west of the area and is considered to be the source of mineralization on the Zeehan field.

The Renison Bell Tin Mine is situated 10 miles north-east of Queen Hill, while 30 miles due north of Zeehan lies the Cleveland Tin Mine, and the old Mt. Bischoff Tin Mine (see accompanying figure). The Mt. Lyell Copper Mine is situated 20 miles south of Zeehan, and the Rosebery Lead-Zinc Mine is situated 15 miles east of Zeehan.

## (B) STRATIGRAPHY

### (i) Cambrian Oonah Series

Three different units within the Oonah series have been differentiated by field mapping in the lease area. Unit 1 (slates, shales, siltstones and quartzites) is lithologically typical of the Oonah series throughout the Zeehan - Heemskirk area, whereas Units 2 and 3 are only developed in the uppermost part of the succession.

UNIT 1: Slates, Shales, Siltstones and Quartzites.

This unit occupies much of the area mapped and consists predominantly of interbedded grey to black slates and quartzites in 1/4"-6" thick beds. Where cleavage is not strongly developed, slates give way to shales and siltstones.

The slates and shales are frequently carbonaceous and slightly pyritic, becoming graphitic in the vicinity of fault planes. Quartzite beds are frequently micaceous on bedding planes. Rare chert bands, 1"-6" thick have been noted in drill cores, in the vicinity of Clarke's lode on Queen Hill, together with thick (up to 10 ft.) bands of brecciated quartzite in black slate matrix. King and Blissett (1968) recorded massive black dolomitic limestone on the waste dumps of the Montana No. 1 and Queen No. 4 mines, however, no surface exposures have been found during the present mapping.

Subdivision of Unit 1 on anything other than a very local basis has not been attained due to a lack of recognizable marker horizons. As undisputed facing features have not yet been found, and strong folding has occurred, the true thickness of this unit is not known.

UNIT 2: Spilitic lavas and agglomerates.

This unit consists of a number of bands (or flows), interbedded with the slates, shales and quartzites of Unit 1. In the past, the terms melaphyre (Waller, 1904) and spilite (Twelvetrees and Ward, 1910), have been used to describe the rock-type comprising this unit. Since the term spilite has been commonly used since 1910, its name has here been retained.

The bands mapped comprise two distinct rock types, although the boundary between the two is rarely seen in the field. Rock type 1 is a pale grey-green spilitic lava, slightly to strongly amygdaloidal. The amygdales are filled with chlorite, calcite or silica in varying combinations, and are frequently deformed due to orogenic stress. Rock type 2 is a pale grey-green tuffaceous spilite, frequently agglomeratic.

These bands have been mapped in the field by the writer, as being interbedded with the surrounding slates and quartzites. The bands very in thickness between approximately 10 feet and 300 feet. The irregular outcrop pattern of the spilites is considered to be due to folding and subsequent erosion of the beds. King and Blissett (1968) have referred to these volcanics as essentially irregular discordant bodies, their argument being based on discordant contacts in the field.

It is true that slate-spilite contacts frequently appear discordant, however,

(a) field mapping by the writer suggests that slates and spilites are interbedded.

(b) Twelvetrees and Ward (1910) refer to bedded spilites in the Montana No. 1 mine.

(c) the spilites are confined to the upper beds of the Oonah series in the Zeehan area.

Therefore, on this basis, the writer feels that the spilites should in general, be considered as contemporaneous with the surrounding slates and quartzites, and that the discordancy noted by King and Blissett (1968) may have been produced by subsequent orogenic stresses.

UNIT 3: Massive Quartzites.

Massive pale grey, fine-medium grained quartzites comprise Unit 3 within the area mapped. Flakes of muscovite mica are scattered throughout the quartzites, sometimes being concentrated along bedding planes. Occasional 1"-6" thick shale beds occur throughout this unit.

This unit forms the strike ridges of the Queen and Montana Hills. On Queen Hill, the quartzites strike N.N.E. and dip east at $60^{\circ}$, whereas on the Montana Hill they strike E.W. and dip south at $60^{\circ}$.

This strike deviation is a result of the Montana fault and the Oonah tear fault (see geological map). Average thickness of this unit in the lease area is 300 feet.

Thinning of the quartzites at the north end of Queen Hill may be due to drag folding caused by the Oonah tear fault, or a facies change.

Twelvetrees and Ward (1910) recorded similar quartzites on the Nubeena Hill to the south of the lease area.

(ii) Cambrian Crimson Creek Formation

A series of pale grey to dark grey-black slates, grey to dull purple slates and interbedded pale grey-green tuffaceous shales overlie Oonah series sediments east of the Queen and Montana Hills. This series has been termed the Crimson Creek formation. (Blissett, 1962).

Outcrop of this formation in the area mapped is poor. The contact between the upper beds of Oonah series and the lowest beds of the Crimson Creek formation on the east side of Queen Hill, is difficult to discern due to similar lithologies; however, it would appear that the contact exists just below Payne's open cut and is faulted.

The Tasmanian Government survey mapping indicates that these sediments form the Argent Flat and Manganese Hill.

(iii) Ordovician Gordon Limestone

Exposure of the Gordon limestone within the area mapped is nil, and in fact, the area shown (see geological map) as Gordon limestone may in part consist of Oonah series sediments or Moina sandstone (Blissett, 1962). The contact between Oonah series sediments and Gordon limestone has been placed at the approximate boundary between highland

vegetation and button grass of the Despatch Flat.

Red-stained weathered shales on the east side of the Montana Hill near Dunkley's tram may be on the Cambrian - Ordovician boundary.

(iv) Permian Tillite

A small patch of pale grey stiff clay with included fragments of quartzite and slate has been mapped on the top of Queen Hill as Permian Tillite. The base of this outcrop is 800 feet above sea level.

Blissett (1962) recorded two small outliers of permian tillite on Oonah Hill at an altitude of 1,000 feet, the main outcrop of tillite in the area being around the old Montana Silver-Lead Mine.

(C) STRUCTURAL GEOLOGY

The Tabberabberan orgeny (middle Devonian) in the Zeehan area produced a series of major N.W. trending folds accompanied by a complex fault system. A second period of faulting, or movement along pre-existing faults, occurred during post-Permian times.

(i) Folding

In the exploration licence area two major Tabberabberan fold structures (as defined by Carey) are present; (a) the Heemskirk anticlinorium and (b) the Zeehan syncline. In the northern part of the E.L. area the north trending despatch fault brings Ordovician Gordon limestone, on the western limb of the Zeehan syncline, against early Cambrian Oonah series slates and quartzites of the Heemskirk anticlinorium. To the south this contact may only be an unconformity.

In the southern part of the E.L. area Oonah series slates and quartzites dip south beneath Cambrian Crimson Creek formation slates and shales. This contact may be faulted, however,

difficulty arises in defining the boundary between Oonah series sediments and Crimson Creek sediments east of Queen Hill and Montana Hill.

In the area mapped during the present survey, two major fold directions can be distinguished, trending N.E.-S.W. and N.W.-S.E. It is considered that the N.E.-S.W. trending folds are the result of major folding in the Heemskirk anticlinorium during the Tabberabberan orogeny.

The N.W.-S.E. trending folds are considered to be due to a later (late Tabberabberan?) period of compression. These folds are cross folds, as is evidenced by the reversal of plunge of fold axes referred to by Blissett (1962) and frequently noted during the present mapping.

Surface mapping and diamond drill-hole intersections suggest that mineralization is partly controlled by N.N.E. plunging fold noses in the N.W.-S.E. trending folds.

(ii) Faulting

Two major faults have been postulated in the area mapped, the Oonah tear fault and the Montana fault. Both faults have been postulated on the basis of underground workings reports.

(a) Oonah Tear Fault

This fault is described by Waller (1904) as a "slide" striking N.75°W. with a N.E. dip. The "slide" displaces the Oonah Stannite lode laterally and is considered to be a tear fault.

A similar "slide" is recorded by Twelvetrees and Ward (1910) in the Montana No. 2 mine workings. They recorded that: "A slide of pug breaks the lode going south, which reappears to the south-east on the other side of the fault."

Both faults are recorded as exhibiting a north block west movement and are here postulated as being the same fault, being middle Devonian in age.

(b) Montana Fault

This fault is described by Twelvetree and Ward (1910) as the No. 1 slide. They recorded that the principal slide (No.1) in the Montana Mine is a belt of disturbed and crushed slate slate descending in a wedge-like form, being 200 ft. wide at surface and contracting to about 100 ft. at 500 ft. below the surface. The slide is described as striking north-west and dipping to the north-east at about 45°.

In addition, numerous minor faults have been mapped in the field, on surface and in adits. Two distinct sets of these minor faults occur, one set striking N. to N.N.W. and dipping E. at 60°-80°, with the second set striking N.E. and dipping E. at 50°-70°. These two sets of faults intersect at 60° and probably represent conjugate shears produced by compression along N.W.-S.E. directions. This same compression produced the N.W.-S.E. trending folding in the Oonah series sediments.

Various authors consider that a second period of faulting, or movement along pre-existing faults, occurred in post-Permian times. The main piece of evidence to support this idea is that Cambrian Oonah series slates in the area of the Montana Silver-Lead Mine, about four miles north of Zeehan, have been thrust over Permian tillite (Blissett, 1962, pp.84, 130-134). Minor faulting displaces the lode channels in much of the Zeehan area, however, it is generally not possible to definitely date this faulting as post-Permian.

(iii) Metamorphism

Oonah series sediments in the area mapped exhibit low grade regional metamorphism. Slaty cleavage is strongly developed in places, with a corresponding appearance of graphite on cleavage planes in the carbonaceous beds.

(D) MINERALIZATION

(i) Previous Work

All previous reports on mineralization in the Queen Hill-Montana Hill area have assumed that mineralization occurs only as epigenetic fissure-lodes filling pre-existing fault planes. The presence of pyritic shales and slates has been referred to in previous reports, however, no attempt has been made to clarify whether or not the pyrite in these shales is syngenetic.

The Zeehan field was exploited between 1880 and 1914 as a Silver-lead field. Silver-lead mineralization occurs as shoots within epigenetic fissure lodes, the gangue consisting of quartz pyrite and siderite in varying amounts. The shoots were worked from adits and shafts down to an average depth of 400 feet, after which the silver-lead ore generally cut out.

The only tin production on the field was from the Oonah Mine where tin occurs together with copper and silver in stannite; after a number of years of operation £1 per ton was paid for tin in the ore provided the content exceeded 8%. Tin has been recorded from Bradshaw's lode and Patkuchen's lode on the Oonah property; the lodes consist of massive pyrite which assays 0.3% to 0.4% tin (Blissett, 1962, page 148).

(ii) Present Work

Mapping and diamond drilling carried out over the last 18 months has indicated a number of mineralized lode formations in the immediate Queen Hill area (see 1:600 geological plans).

A self-potential survey (leap-frog method) was carried out over a number of selected areas on and around Queen Hill,in order to try and trace the continuation of known lodes only partially exposed at surface.

Difficulty has arisen in correctly interpreting the results, in that in some places a strong anomaly occurs over exposed pyrite, whereas in other places, only a weak anomaly or no anomaly at all occurs over exposed pyrite.

On Queen Hill the major lodes are Clarke's lode, Taylor's lode, No. 4 lode, Delayney's lode, the tabloid, and the Stormsdown mineralization; on Montana Hill the major lodes are No. 1 lode, No.2 lode and a large pyritic lode between the two.

Clarke's lode, No. 4 lode and No. 4 lode south have been worked from the Queen No. 4 shaft, while on Montana Hill, No. 1 lode and No. 2 lode have been worked from the Montana No. 2 shaft.

Descriptions of the major Queen-Montana lodes as given below, are based on surface exposures, exposures in adits, drill hole intersections and old reports.

(iii) Mineralogy

The detailed paragenesis of the Queen Hill-Montana Hill lodes has not yet been elucidated; however, from surface mapping, drill hole intersections and microscopic examination, the following factors are apparent:

(a) at least two phases of mineralization occur.

(b) some pyrite mineralization in the tabloid appears to be syngenetic.

(c) cassiterite does not appear to have formed from the breakdown of stannite.

(d) cassiterite grain size varies between 5 $\mu$ and 200 $\mu$ .

(e) gangue minerals comprise the following: Pyrite, arseno-pyrite, siderite, quartz, pyrrhotite, dolomite, moderately common fluorite, and rare topaz, apatite, tourmaline and chlorite or sericite.

(f) ore minerals comprise the following: cassiterite, stannite, galena, sphalerite, chalcopyrite, rare jamesonite, stibnite, tetrahedrite and bismuthinite.

The distribution of these minerals within the major lodes are described below in sections (iv) and (v).

(iv) Queen Hill Lodes

(a) Clarke's Lode

This lode has been mapped on the surface over a strike length of 1,150 feet; the lode dips east at 60°. At surface, Clarke's lode varies in thickness between 2'6" and 4'; in drill hole intersections the calculated true thickness of the lode varies between 4' in D.D.H. G.10 and 17'6" in D.D.H. G.8.

Clarke's lode is considered to be an epigenetic fissure lode; at surface the lode closely follows a slate-spilite contact, while at depth the slate-spilite contact dips away at a steeper angle.

The lode consists essentially of quartz-pyrite-siderite gangue in which occurs irregular veins and blebs of galena, stannite and sphalerite.

In addition, Fander (1971) reported the presence of tremolite (G.1), carbonaceous chert (G.3), sericite, topaz and tourmaline (G.5). Cassiterite occurs throughout Clarke's lode in a fine-grained form associated mainly with the pyrite and quartz.

At least two phases of mineralization occur, with the galena and stannite post-dating the quartz and pyrite.

(b) Taylor's Lode

This lode has been mapped on the surface over a strike length of 700 feet; the lode dips east at 60°. At surface, the lode varies in thickness between 1'6"-4'; drill hole intersections have in places been difficult to correlate with surface exposures, however, in drill hole G.10, the calculated true thickness of the lode, intersected between 288' and 293', is 4 feet.

As is Clarke's lode, Taylor's lode is considered to be an epigenetic fissure lode; the lode has been emplaced along a fault in slates and quartzites of Unit 1. (Oonah series)

Where seen outcropping on surface, and in diamond drill hole intersections, Taylor's lode consists of quartz-pyrite gangue with occasional veins and blebs of galena; minor chalcopyrite and cassiterite occur. Cassiterite content is generally between 0.2% and 0.3%.

(c) Delayney's Lode

This lode has been mapped on the surface and in drill holes over a strike length of 250 feet; the lode dips east at 50°.

The lode has been displaced by cross-faulting in Adit No. 9.

Delayney's lode is considered to be an epigenetic fissure lode and has an average width of 4 feet. The lode consists of quartz-pyrite-siderite gangue with minor stannite and galena. Cassiterite may be present.

(d) No. 4 Lode

There is no surface exposure of this lode, or of No. 4 lode south which is reported to join with No. 4 lode in slates close to the slate-spilite contact south of the Queen No. 4 shaft. The approximate positions of these two lodes are shown on the accompanying 1:600 geological plan, the position being based on those shown on the geological map of the Zeehan field by Waller (1904).

Blissett (1962) describes mineralization in No. 4 lode on the 110' level of the Queen No. 4, as erratic but was generally workable and included up to 1'6" of galena and 3' of milling ore. Blissett further reports "Waller (1904) P.62, stated that No. 4 lode south strikes N.N.E. with a S.E. dip varying from $20^{\circ}$ to $45^{\circ}$ and that it had been stopped out from this level, 50 feet below No. 2 level up to the surface. Below the level, a winze sunk 50 feet deep on the lode passed into pyrite at the bottom. Waller commented that several workable masses of good second class ore had been left so that only the richest galena ore appears to have been extracted".

(e) The Tabloid

Ore reserves (Brown 1972) have been calculated on the assumption that tin mineralization encountered between Adit No. 2 and the 40 feet intersection in drill hole G.18 is in the basic form of a single tabloid.

On the basis of drill hole intersections and the intersection in Adit No. 2, the tabloid between Adit No. 2 and the drill hole G.18 intersection has been calculated (Brown 1972) as having the following dimensions: 1,100' x 200' x 24'.

The surface exposures of the tabloid between Adit No. 3 and No. 4 has, in previous reports by the writer, been referred to as O'Shea's lode. The lode at surface occurs on the slate-spilite contact; in drill hole G.3 slate and chert occurs in places within the lode, but spilite occurs on both sides of the intersection. In drill holes 4, 5 and 6, spilite occurs on both sides of the tabloid intersection. In all other drill hole intersections, the tabloid occurs entirely within slates, close to the spilite contact.

The tabloid consists essentially of quartz-pyrite gangue with minor amounts of siderite and rare stannite, galena and sphalerite specks. Fine grained cassiterite occurs throughout. In places the pyrite appears to be bedded, however, no specific identification of syngenetic pyrite in the tabloid has yet been made.

Pyrrhotite has only been identified in the tabloid in drill hole Nos. 1, 3 and 6. The presence of pyrrhotite in these holes gives weight to the idea that two en-echelon lenses, rather than a single tabloid, may be present, with pyrrhotite restricted to the upper lens. This problem will only be clarified by further drilling or underground development.

If, in fact, two lenses are postulated, then the mass of pyrite intersected at the end of Adit No. 5 may well represent an upper faulted out portion of the postulated lower lens.

(f) Stormsdown Mineralization

Massive quartz-pyrite mineralization exposed in the main Stormsdown open-cut, and in dozer-cuts to the E. and W.,

is considered to be essentially fault-controlled. Quartz-pyrite lode material exposed in the dozer-cuts is considered to be epigenetic fissure filling material emplaced along a major N.N.W. striking fault which dips steeply to the north east at surface.

Quartz-pyrite mineralization in the Stormsdown open-cut may represent a lens which has been cut off at its northern end by the N.N.W. trending fault. Detailed mapping in the Stormsdown open-cut suggests that this "lens" may be conformable with the bedding, and have a maximum width of 25 feet. Cassiterite is present in the "lens", however, difficulty in sampling across the "lens" has meant that an average tin content is not at present available.

The epigenetic fissure lode exposed in the dozer-cuts exhibits an average width of 6 feet. Cross faulting (or possibly folding) has displaced the lode along strike in a number of places (see Queen Hill 1:600 Geological Plan). Fine grained cassiterite occurs in a quartz-pyrite gangue with rare flecks of galena.

(v) Montana Hill Lodes

(a) No. 1 Lode

Surface exposure of this lode is minimal, being represented by a line of pits 200 feet west of the Montana No. 2 shaft.

The lode is described by Twelvetrees and Ward (1910) as striking north-easterly, with the dip varying between levels in the mine. The average lode width is described as 6 inches; the lode carried galena which assayed as much as 1 oz. silver, 1 unit of lead, and has been nearly all stoped out above No. 4 level in the mine.

(b) No. 2 Lode

This lode can be traced on the surface to the west of No. 1 lode in a series of trenches over a strike length of 400 feet. The lode at surface is seen to be a quartz-pyrite fissure lode containing little or no cassiterite, with an average width of 3 feet, and striking N.N.W.

This lode, as with No. 1 lode, was worked for its silver-lead which occurred as veins and pods within the predominantly pyritic gangue; the dip of this lode also varies between levels in the mine.

(c) Pyritic Lode

Between No. 1 lode and No. 2 lode at surface, there is an open-cut in which occurs an irregular mass of pyrite which is strongly oxidised in places. The dip and strike of this material at surface is difficult to ascertain; cassiterite is intimately associated with the pyrite.

Twelvetrees and Ward (1910) refer to what is considered by the writer to be the sub-surface extension of this mineralization:

> "Between Nos. 1 and 2 lodes in this mine is a mass of mixed silica, pyrite and siderite in which pyrite strongly predominates. This is only partially exposed, and its precise form is not known."

(E) SAMPLING PROGRAMME

Where possible, in the area mapped to date, all surface and underground exposures of mineralization have been chip sampled. All sampling has been carried out across the strike of the mineralization where practicable; the sample widths vary between 2 feet and 6 feet, generally being 5 feet.

022

Assays in % unless otherwise specified
All widths are intersected widths

764023

## QUEEN HILL - DIAMOND DRILL SUMMARY

| D.H. No. | Co-ordinates North | East | Elevation | Mag Brg | Angle | Depth | Commence | Complete | Progressive Footage | GEOLOGY/MINERALISATION | | | Sn | Cu | Ag oz/t | Pb |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 10277 | 9471 | 682 | 102 | 43 | 357'6" | 10.12.70 | 18.12.70 | 357.5 | 130-138 | py veins & pods in spilitic tuff | 130-210 | | 2.53 | 0.01 | |
| | | | | | | | | | | | also siderite-galena veins | 210-216 | | 0.55 | | |
| | | | | | | | | | | 138-152 | abund py veins in shale & qtzite | | | | | |
| | | | | | | | | | | 152-212 | qtz-py Lode | 343-347.5 | | 0.76 | 0.10 | 14.43 5.60 |
| | | | | | | | | | | 343.5-347 | qtz-py-galena Lode | 340-347.5 | | 0.51 | | 8.70 3.45 |
| 2 | 10277 | 9471 | 682 | 128 | 46 | 405'6" | 7.1.71 | 13.1.71 | 763.0 | 333-343 | py veins ¼" in black slate | 337-351 | | 0.93 | 0.01 | |
| | | | | | | | | | | 343-345 | siderite-py banded lode & galena | | | | | |
| | | | | | | | | | | 345-353 | py veining in slate | | | | | |
| 3 | 10230 | 9235 | 803 | 280 | 67½ | 307'6" | 18.1.71 | 22.1.71 | 1070.5 | 176-177 | py flecks in black shale | 176-177 | | 1.23 | 0.43 | |
| | | | | | | | | | | 216.5-265 | qtz-py-po Lode | 216-266 | | 2.31 | Tr | |
| 4 | 10230 | 9235 | 803 | 299 | 67½ | 282 | 25.1.71 | 1.2.71 | 1352.5 | 179-182 | qtz-py Lode; galena veins at 182 | 179-181 | | 0.62 | | |
| | | | | | | | | | | 182-185 | abund py veins in siltstone/qtzit | 181-183 | | 8.30 | 4.51 | |
| | | | | | | | | | | | breccia | 183-190 | | 0.64 | Tr | |
| | | | | | | | | | | 185-189 | qtz-galena-siderite-py Lode | 179-190 | av | 2.40 | | |
| | | | | | | | | | | 232-272 | qtz-py-siderite Lode | 238-272 | | 2.24 | Tr | |
| 5 | 10384 | 9211 | 798 | 274 | 72 | 319'6" | 3.2.71 | 9.2.71 | 1672.0 | 185-194 | qtz-py-galena Lode | 186-197 | | 1.76 | 0.62 | 7.81 7.95 |
| | | | | | | | | | | | | 189-193 | | 3.67 | 1.62 | 19.35 18.18 |
| | | | | | | | | | | 206-209 | qtz-py Lode | 205-210 | | 0.58 | 0.01 | |
| | | | | | | | | | | 237.5-240 | galena-siderite Lode | 236-241 | | 0.11 | 0.01 | 29.46 22.78 |
| 6 | 10384 | 9211 | 798 | 258 | 85 | 381'6" | 15.2.71 | 22.2.71 | 2053.5 | 219-225.5 | qtz-py Lode-black slate | 219-224 | | 1.15 | | 5.95 |
| | | | | | | | | | | 225.5-237 | qtz-py-galena Lode/spilite | 228-235 | | 0.41 | 0.04 | 6.43 12.54 |
| | | | | | | | | | | | | 235-239 | | 1.04 | 0.01 | |
| | | | | | | | | | | 262-280 | qtz-py-po Lode | 265-274 | | 1.26 | 0.14 | |
| | | | | | | | | | | | | 265-278 | | 0.99 | 0.02 | |
| 7 | 9979 | 9275 | 806 | 285 | 61 | 400 | 16.3.71 | 2.4.71 | 2453.5 | 90.5-91.3 | qtz-py Lode; thin galena veins | 90-94 | | 0.57 | 0.29 | |
| | | | | | | | | | | 107-110.5 | black shales c abund py veins and disseminations | 109-110 | | 0.34 | | 2.2 |
| | | | | | | | | | | 258-268.8 | qtz-py-galena Lode (includes 259-261: | 259-269 | | 0.68 | 0.01 | 6.90 10.92) |
| 8 | 9979 | 9275 | 806 | 285 | 86 | 455 | 4.4.71 | 6.5.71 | 2908.5 | 169.5-179 | shales & qtzites; abund dissem py; also py-siderite veins | 172-173 | | 0.58 | | |
| | | | | | | | | | | | | 176-184 | | 2.01 | 0.01 | (177-179miss.) |
| | | | | | | | | | | 179-184.5 | qtz-py Lode | | | | | |
| | | | | | | | | | | 380.5-383.8 | qtz-py Lode | 382-386 | | 0.58 | 0.08 | |
| | | | | | | | | | | 383.5-385 | qtz-py Lode | | | | | |
| | | | | | | | | | | 385-398 | py veins in slate and qtzite | 394-395 | | 0.30 | | |
| | | | | | | | | | | 398-409 | qtz-py Lode | 402-403 | | 0.48 | 0.20 | |
| 9 | 10797 | 9202 | 776 | 257 | 80 | 279'6" | 12.5.71 | 7.6.71 | 3188.0 | 222-225.9 | py Lode - massive | 221-226 | | 1.37 | 0.03 | 2.30 6.15 |
| 10 | 10190 | 9007 | 908 | 280 | 79 | 980 | 16.6.71 | 21.9.71 | 4168.0 | 562-566 | qtz-py Lode, minor stannite and galena | 562-566 | | 2.93 | 1.19 | 12.02 1.73 |
| 11 | 10450 | 8982 | 865 | 282 | 65 | 577 | 24.8.71 | 28.8.71 | 557.0 | 113-118 | py-galena Lode | 113-117 | | | | 15.47 15.6 |
| | | | | | | | | | | 147-151 | qtz-py Lode | 147-148 | | 0.88 | 1.15 | 10.4 2.0 |
| | | | | | | | | | | 352.5-354.5 | py veining intense/black slate | 352-354 | | 0.86 | 0.38 | 5.15 4.52 |
| | | | | | | | | | | 356.6-359 | galena, py, sphalerite veins /black slate | 356-360 | | 0.07 | 0.03 | 21.41 18.1 |
| | | | | | | | | | | 462.5-469.1 | strong py veining in slate | 461-465 | | 0.50 | 0.03 | |
| | | | | | | | | | | | Distinct styles | 466-470 | | 0.55 | 1.0 | 5.01 0.76 |
| | | | | | | | | | | 474.5-476 | strong py veins in slate | 474-475 | | 0.55 | 1.45 | 7.60 |
| | | | | | | | | | | 489.9-504.9 | qtz-py Lode | 491-505 | | 1.52 | 0.02 | Low |
| 11W | 10450 | 8982 | 865 | 286 | 59 | 617 | 28.9.71 | 10.9.71 | 739.0 | | | | | | | |
| 12 | 10450 | 8982 | 865 | 282 | 83 | 870'6" | 28.8.71 | | 1609.5 | 553.8-558 | massive intense py veins | 555-556 | | 1.19 | 0.04 | |
| | | | | | | | | | | 560-577 | sulphide veining intense in black slate | 563-564 | | 2.18 | 0.04 | |
| | | | | | | | | | | | | 567-568 | | 0.59 | 0.27 | 1.55 4.81 |
| | | | | | | | | | | | | 569-570 | | | 0.16 | 1.12 |
| | | | | | | | | | | 583.7-588 | intense sulphide (py) veining in cherts & carbonates. | 580-585 | | 1.59 | 0.02 | |
| | | | | | | | | | | | | 580-602 | av | 1.02 | (22') | |
| | | | | | | | | | | 592-5-647.5 | massive py veins, coarsely crystalline, bedded; fg below 621' | 611-659 | av | 2.59% | (48') | |
| | | | | | | | | | | | Cherts, pyrutic cherts | 719-739 | av | 1.79 | (20') | |
| | | | | | | | | | | 718-739 | py chert (bedded, globular) + introduced py (coarse) | | | | | |

| D.H. No. | Co-ordinates North | Co-ordinates East | Elevation | Mag. Brg. | Angle | Depth | Commence | Complete | Progressive Footage |
|---|---|---|---|---|---|---|---|---|---|
| 13 | 10722 | 8859 | 842 | 282 | 59 | 792' | 11.8.71 | 20.9.71 | 2401.5 |
| 14 | 9912 | 8955 | 890 | 282 | 67 | 1000' | 7.10.71 | 20.10.71 | 3401.5 |
| 15 | 10565 | 8585 | 780 | 282 | 60 | 863' | 22.1.72 | 5.2.72 | 4264.5 |
| 16 | 10940 | 9140 | 740 | 259 | 60 | 460' | 6.2.72 | 9.2.72 | 4724.5 |
| 17 | 10617 | 8332 | 660 | 282 | 60 | 380' | 12.2.72 | 18.2.72 | 5104.5 |
| 18 | 10642 | 8325 | 660 | 282 | 60 | 1148' | 19.2.72 | 12.3.72 | 6252.5 |

| GEOLOGY/MINERALIZATION | | | Sn | Cu | Ag oz/t | Pb |
|---|---|---|---|---|---|---|
| 36.5-38.5 | Qtz-py Lode | 36-37 | 0.20 | 0.01 | | |
| 142-149 | Abund py veins in slate and qtzite | 146-149 | 0.30 | 0.05 | 2.45 | 9.85 |
| 646.5-666 | Qtz-siderite Lode | 646-653 | 2.24 | 0.02 | | |
| 409-415.5 | Qtz-py Lode, minor stannite | 412-414 | 1.85 | 1.01 | 4.55 | |
| 529.5-534 | Siderite-galena Lode | 529-534 | 0.26 | 0.73 | 9.67 | 18.35 |
| 634.5-537.6 | Qtz-py Lode | 634-638 | 0.43 | | 0.72 | |
| 662.5-664 | Qtz-py Lode | 662-665 | 0.93 | 0.01 | | |
| 398.5-402 | Qtz-py Lode in black slate, minor galena | 398-402 | 2.06 | 1.22 | 11.28 | 3.86 |
| 634-636 | Abund py veins in slate and Qtzite | 634-636 | 1.12 | 0.01 | | |
| 763-776.8 | Py veins in slate and Qtzite | 768-800 | 0.37 | | | |
| 776.8-789.7 | Qtz-py Lode | 800-816 | 0.81 | 0.02 | | |
| 789.7-806.5 | Abund py veins in slate and Qtzite | | | | | |
| 806.5-813 | Abund siderite veins in fault pug | | | | | |
| 813-818.1 | Qtz-py-siderite Lode | | | | | |
| 199.7-202.9 | Qtz-py-sphalerite Lode | 198-203 | 0.76 | <0.01 | | |
| 380-387.9 | Py Lode | 384-385 | 1.82 | <0.01 | | |
| 387.9-390 | Siderite Lode | | | | | |
| 458-458.5 | Siderite veins in brecciated Qtzite | 458-461 | 0.50 | 0.02 | 1.21 | 2.65 |
| 458.5-463 | Abund py veins and speck in slate and Qtzite | | | | | |
| 500.3-505.5 | Qtz-py Lode | 500-504 | 0.08 | 0.05 | | |
| 955-958 | Qtz-py Lode | 955-970 | 0.90 | 0.07 | | |
| 958-961.9 | Slate-qtzite-py Breccia | 970-984 | 1.91 | 0.05 | | |
| 961.9-964.8 | Qtzite | 984-995 | 0.63 | 0.01 | | |
| 964.8-966 | Chert Breccia | 1089-1091 | 1.11 | 0.01 | | |
| 966-967 | Spilite | 1091-193.5 | 0.37 | 0.01 | | |
| 967-994.5 | Py Lode in slate and Qtzite | | | | | |
| 1089-1093.5 | Py and siderite veins in slate and qtzite | | | | | |

Dozer-cuts across self-potential anomalies have been chip sampled, and most mullock heaps on the 40 acre Queen Hill lease have been dump sampled.

Many of the chip sample positions are shown on the accompanying 1:600 geological plans. Sample localities not shown on these plans (i.e. some costean sampling and much adit sampling), and all assay results,may be found in previous geological reports by the writer and in the monthly progress reports.

A report on dump sampling carried out on the 40 acre Queen Hill lease (Barnes 1972), shows that some 27,470 tons of dump material is available with a weighted average grade of 0.42% tin, 3% lead and 2 oz/ton silver.

Future Programme:
It is proposed that dump sampling in the future should be extended to cover the Montana No. 2 shaft area, Montana No. 1 shaft area, Junction area, Zeehan Western area, and the Eastern edge of the Argent Flat.

(F) DIAMOND DRILLING PROGRAMME

To date, eighteen diamond drill holes have been completed on the Queen Hill project. Total footage drilled to date is 10,420.5 feet. All holes, with the exception of drill hole G.17, have intersected mineralization; survey details and major zones of mineralization intersected are tabulated on the accompanying summary chart.

Drill hole positions are given on the accompanying 1:600 geological plans, also geological logs and cross-sections of each drill hole are appended. Assay results and significant mineralogical features in each hole are discussed below.

Ore reserves calculated by Mr. D. Brown (29th March, 1972) have been worked out on the basis that tin mineralization occurs in Clarke's lode and in the form of a tabloid. The basis form of a tabloid has been used instead of an echelon lense; further drilling will clarify the exact form of mineralization.

In the descriptions given below, lode intersections are described as belonging either to Clarke's lode, Taylor's lode, Delayney's lode or the Tabloid.

Diamond Drill Hole G.1

This hole was drilled in a down-dip direction to intersect Clarke's lode, and thus the lode intersections are much greater than the true lode widths. The Tabloid, intersected between 130 feet and 210 feet, assayed 2.53% tin in the form of cassiterite.

Massive pyrrhotite occurs in the Tabloid between 156 feet and 174 feet, elsewhere quartz and pyrite constitute the main gangue minerals.

The quartz-pyrite-galena lode intersected between 343'6" and 347' is considered to be Clarke's lode. The intersection between 343' and 347'6" assayed 0.76% tin, 0.10% copper, 5.60% lead and 14.43 oz/ton silver.

Diamond Drill Hole G.2

As with D.D.H. G.1, this hole was drilled in a down-dip direction to intersect Clarke's lode. Patchy mineralization between 337 feet and 350 feet could represent Clarke's lode.

Diamond Drill Hole G.3

Patchy mineralization considered to be Clarke's lode was intersected between 177 feet and 187 feet. The interval from 176 feet to 186 feet assayed 0.39% tin, 3.41% lead and 2.35 oz/ton silver. The Tabloid, intersected between 216'6" and 265', consists of quartz-pyrite gangue with pyrrhotite particularly noticeable from 227 feet to 237 feet and 238 feet to 245 feet.

Pyrite has replaced the amygdaloidal filling in spilite between 200 feet and 216'6". The true width of the Tabloid in this hole is estimated to be 45 feet.

Diamond Drill Hole G.4

Brecciated quartz-pyrite-siderite-galena lode material intersected between 179 feet and 189 feet is considered to be Clarke's lode. High copper values associated with high tin values between 181 feet and 183 feet suggest the presence of stannite; however, no visible stannite can be seen in the core. If the high tin values between 181 feet and 183 feet are included, the section from 179 feet to 190 feet assays 2.04% tin, 0.83% copper, 5.89% lead and 11.49 oz/ton silver.

The Tabloid intersected between 232 feet and 272 feet consists of quartz-pyrite-siderite gangue, the section from 238 feet to 272 feet assaying 2.24% tin in the form of cassiterite.

No pyrrhotite is discernible in the Tabloid in G.4.

Diamond Drill Hole G.5

Clarke's lode intersected between 185 feet and 194 feet consists of quartz, pyrite and galena with both stannite and cassiterite present. Stannite accounts for high tin and copper values between 189 feet and 193 feet.

High lead values in this interval are due to the galena; correspondingly high silver values may come from either stannite or galena. The interval between 186 feet and 197 feet assayed 1.58% tin, 0.62% copper, 7.95% lead and 7.81 oz/ton silver.

A quartz-pyrite lode intersected between 206' and 209'6" represents the northern end of the Tabloid. The interval from 205 feet to 210 feet assayed 0.58% tin, 3.2% lead and 1.29 oz/ton silver.

A galena-siderite lode was intersected between 237'6" and 240'; the interval between 236 feet and 241 feet assayed 22.78% lead and 29.46 oz/ton silver.

Diamond Drill Hole G.6

Clarke's lode intersected between 219 feet and 237 feet consists of quartz-pyrite gangue with galena, cassiterite and probable stannite. Within the lode, two tin bearing zones occur:

(a) 219 feet to 224 feet assaying 1.15% tin, 0.69% copper, 2.16% lead and 5.95 oz/ton silver, the tin occurs as stannite bound up with galena between 221 feet and 223 feet, and

(b) 228 feet to 235 feet assaying 0.41% tin, 0.04% copper, 12.54% lead and 6.43 oz/ton silver, the tin in this zone occurs as cassiterite.

The Tabloid intersected between 262 feet and 280 feet consists of a quartz-pyrite-pyrrhotite lode in which pyrrhotite is massive from 271'3" to 275'. Tin occurs as cassiterite, the section between 265 feet and 278 feet assaying 0.99% tin, 0.02% copper and 0.19 oz/ton silver. High cassiterite values occur between 270 feet and 274 feet, suggesting that the cassiterite is bound up with pyrrhotite.

Diamond Drill Hole G.7

A quartz-pyrite-galena lode, intersected between 90'6" and 91'3", is considered to represent Dalayney's lode. The section between 90 feet and 94 feet assayed 0.57% tin, 0.29% copper, 0.85% lead and 0.89 oz/ton silver; most of the tin in this section is in the form of stannite.

Clarke's lode intersected between 258 feet and 278'9" consits of quartz-pyrite and galena with some siderite veins. The interval from 259 feet to 269 feet assayed 0.34% tin, 0.04% copper, 3.37% lead and 1.58 oz/ton silver. Some stannite may be present between 259 feet and 260 feet. High silver and lead values between 259 feet and 261 feet are due to galena.

Diamond Drill Hole G.8

Delayney's lode intersected between 121'3" and 124'1" consists of quartz, pyrite and stannite with specks of galena. The interval from 119 feet to 127 feet assayed 0.63% tin, 0.3% copper, 0.53% lead and 3.82 oz/ton silver.

A quartz-pyrite lode intersected between 179' and 184'6" probably represents a fissure filling parallel to Delayney's lode. The interval from 179 feet to

184 feet assayed 2.94% tin in the form of cassiterite.

Clarke's lode intersected between 380'6" and 409' consists of quartz-pyrite lode with included bands and fragments of slate. Tin mineralization is poor, the interval from 382 feet to 390 feet assaying 0.42% tin, 0.58% lead and 0.42 oz/ton silver. Stannite probably occurs from 382 feet to 383 feet in a 1/2 inch thick galena-siderite vein.

Diamond Drill Hole G.9

A pyrite-siderite lode with minor galena intersected between 222 feet and 225"10" is considered to represent the down-dip extension of mineralization showing at surface in the Stormsdown open-cut. The interval from 221 feet to 228 feet assayed 1.08% tin, 0.03% copper, 4.64% lead and 1.81 oz/ton silver.

Diamond Drill Hole G.10

Taylor's lode intersected between 288 feet and 293 feet consists of quartz-pyrite veins and stringers in black slates; tin mineralization is poor, the highest tin content being 0.42% from 292 feet to 293 feet.

Clarke's lode intersected between 562 feet and 565 feet consists of solid quartz-pyrite lode, with minor stannite and galena as veins and blebs. The interval from 562 feet to 566 feet assayed 2.93% tin, 1.19% copper, 1.73% lead and 12.02 oz/ton silver.

Frequent zones of faulting 1 foot to 4 feet thick occur between 715 feet and 740 feet with associated minor pyrite and siderite mineralization.

Diamond Drill Hole G.11

A pyrite-galena lode intersected between 113'6" and 118' may be Taylor's lode. The interval from 113 feet to 117 feet assayed 15.6% lead and 15.4 oz/ton silver.

Quartz-pyrite-galena-siderite veining in black slates intersected between 483'9" and 489'11" and massive quartz-pyrite lode with included black slate intersected between 489'11" and 504'10" are taken to represent Tabloid mineralization. The interval from

480 feet to 510 feet assayed 0.81% tin, 0.04% copper, 2.45% lead and 1.2 oz/ton silver. Tin is in the form of cassiterite.

Diamond Drill Hole G.11 (Wedge)

Diamond drill hole G.11 had a wedge inserted at 435 feet in order that a second Tabloid intersection could be obtained. The reason for this was to obtain better core recovery in the Tabloid; assay results were similar to those in G.11.

Diamond Drill Hole G.12

The Tabloid was intersected in this hole over a drilled distance of 113 feet between 553'6" and 666'6"; mineralization consists of pyrite either as massive veins in black slates or disseminated through slates as apparent syngenetic pyrite. Occasional quartz-siderite and galena veins and blebs occur. Pyrite mineralization as veins and bedded pyrite occurs irregularly between 666'6" and 738'8".

For the purpose of ore reserves, the Tabloid intersection has been taken as from 553 feet to 660 feet and from 700 feet to 740 feet. This interval of 147 feet assayed 1.32% tin, the tin being in the form of cassiterite.

Diamond Drill Hole G.13

Abundant pyrite veining in slates and quartzites intersected between 142 feet and 149 feet may represent Taylor's lode. The interval from 146 feet to 149 feet assayed 0.3% tin, 0.05% copper, 9.85% lead and 2.45 oz/ton silver.

A quartz-siderite lode with disseminated pyrite intersected between 646'6" and 666', probably represents the down dip continuation of mineralization encountered at surface in the Stormsdown open-cut. The interval from 646 feet to 653 feet assayed 2.24% tin and 0.02% copper.

Diamond Drill Hole G.14

A quartz-pyrite lode with minor stannite, fluorite and siderite intersected between 409' and 415'6" probably represents the down dip extension of Delayney's lode.

The interval from 412 feet to 414 feet assayed 1.85% tin, 1.01% copper and 4.55 oz/ton silver; tin occurs predominantly as stannite.

A siderite-galena lode, with minor chalcopyrite, intersected between 529'5" and 533'11" probably represents a fissure filling parallel to either Delayney's or Clarke's lode. The interval from 529 feet to 534 feet assayed 0.26% tin, 0.73% copper, 18.35% lead and 9.67 oz/ton silver.

Clarke's lode may be represented by a quartz-pyrite lode intersected between 634'6" and 637'8"; the interval from 634 feet to 638 feet assayed 0.43% tin and 0.72 oz/ton silver. Another quartz-pyrite lode intersected between 662'6" and 664'1" assayed 0.93% tin and 0.01% copper from 662 feet to 665 feet. This second zone may represent a split portion of Clarke's lode or a parallel fissure filling.

Diamond Drill Hole G.15

Strong quartz and pyrite veining with minor galena and siderite in black slates, intersected between 398'6" and 402'1", is considered to represent Taylor's lode. Stannite occurs between 399 feet and 402 feet; the interval from 398 feet to 402 feet assayed 2.06% tin, 1.22% copper, 3.86% lead and 11.28 oz/ton silver.

Abundant pyrite veins in slate and quartzite intersected between 634 feet and 636 feet assayed 1.12% tin and 0.01% copper.

The Tabloid intersected between 763 feet and 818 feet consists of abundant pyrite veining in slates and quartzites with solid quartz-pyrite lode from 776'9" to 789'8" and from 813 feet to 818 feet. The interval from 768 feet to 800 feet assayed 0.37% tin, while the interval from 800 feet to 816 feet assayed 0.81% tin and 0.02% copper.

Diamond Drill Hole G.16

Diamond Drill Hole G.16 was sited in order to intersect mineralization north of the Stormsdown open-cut. Two thin bearing lodes were intersected, however, at

present it is difficult to correlate these intersections with observed surface mineralization.

A quartz-pyrite-sphalerite lode intersected between 199'8" and 202'10" assayed 0.76% tin from 198 feet to 203 feet, while a pyrite lode intersected between 380' and 387'10" assayed 1.82% tin from 384 feet to 385 feet.

Diamond Drill Hole G.17

Due to strong deflection, this hole was abandoned at 380 feet. No mineralization was intersected.

Diamond Drill Hole G.18

Tin mineralization occurs adjacent to a mineralized fault, at 458 feet between massive grey quartzites and interbedded slates and quartzites. The interval from 458 feet to 461 feet assayed 0.50% tin, 0.02% copper, 2.65% lead and 1.21 oz/ton silver.

For the purposes of ore reserve calculations, the Tabloid intersection width in this hole has been taken as from 955 feet to 995 feet. A brief log of this 40 feet intersection is given below:

| | | | |
|---|---|---|---|
| 955' | to | 958' | quartz-pyrite lode |
| 958' | to | 961'10" | pyritic black slate-quartzite breccia |
| 961'10" | to | 964'9" | quartzite |
| 964'9" | to | 966' | chert breccia |
| 966' | to | 967' | spilite |
| 967' | to | 994'5" | pyrite lode in slate and quartzite |

The interval from 955 feet to 995 feet assayed 1.1% tin and 0.04% copper. Tin is in the form of cassiterite.

## CONCLUSIONS AND RECOMMENDATIONS

Cambrian sediments and interbedded pyroclastics in the area mapped have been subjected to strong folding and faulting during the Devonian Tabberabberan orogeny. Cassiterite bearing quartz-pyrite mineralization on Queen Hill and Montana Hill occurs as epigenetic fissure fillings and as north plunging lenses which are probably also epigenetic. Some of the pyrite may be syngenetic.

Mineralization is controlled both by folding and faulting and generally occurs in close proximity to slate-spilite contacts. A strong probability exists that further north plunging cassiterite bearing lenses occur within the area mapped, significantly increasing the potential of the area.

Future exploration will be directed towards locating new cassiterite bearing mineralization. This will be carried out by:

(a) Field Mapping
This will be continued on the scale of 1:600.

(b) Dump Sampling
As pyrite was considered as gangue by the old miners, it was generally left in situ in the mines or worked out and dumped on the mullock heaps. It is therefore intended that a dump sampling programme be carried out on major mine dumps in the area in order to obtain an indication as to whether this pyrite is cassiteritic.

(c) Geophysics
An investigation will be made into the effectiveness of various geophysical methods for locating pyrite mineralization. In particular, self potential methods will be looked at in detail, also down-hole geophysical surveys will be investigated.

(d) Diamond Drilling

Future diamond drilling will be designed to:

(i) further expand the cassiterite bearing mineralization already intersected on Queen Hill, and;

(ii) investigate additional shoots in the area which may be cassiterite bearing.

P. J. O'SHEA
GEOLOGIST

26th May, 1972

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# APPENDIX 1

## ORE RESERVES - QUEEN HILL

(P.J. O'SHEA)

This set of calculations is based on the assumption that tin mineralization on Queen Hill occurs in the form of two en-echelon lenses rather than as a single tabloid.

Tonnage calculations produced on the basis of this assumption will be seen to be very close to those obtained by D. Brown assuming a single tabloid.

Upper Lens

| Bore Hole | Intersection Length | Average Assay % Sn | Estimate of true width % | Estimate Intersect Length (ft) | Weighted Assay Average |
|---|---|---|---|---|---|
| G.6 | 13' | 0.99 | 90% | 11.7 | 11.6 |
| 5 | 5' | 0.11 | 80% | 4.0 | 0.44 |
| 4 | 34' | 2.24 | 70% | 23.8 | 53.3 |
| 3 | 50' | 2.31 | 90% | 45.0 | 104.0 |
| Adit 2 | 20' | 3.46 | 90% | 18.0 | 62.3 |
| | | | | 102.5 | 231.64 |

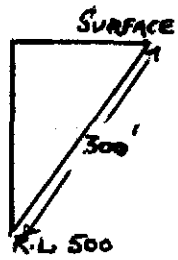
102.5 ÷ 5
= 20.5 feet
= average true intersection width.

231.64 ÷ 102.5
= 2.206
= 2.2% Sn
= average assay over average true intersection width.

Orebody Length

The calculated straight line distance between the surface outcrop and the projected intersection at R.L. 500 feet, is 300 feet.

It is considered that another 100 feet may be added to this figure as ore reserves below the R.L. 500 feet level.




Graphically calculated figure of Upper Lens orebody length.

Orebody Depth

The figure of 200 feet, as calculated by D. Brown for the tabloid depth, is used here since the calculation was carried out on the upper portion of the tabloid.

Calculations: Upper Lens

Length = 400 ft. 400' x 20' x 200'
Width = 20 ft. = 1,600,000 cubic ft.
Depth = 200 ft. at 12 cubic feet to the ton
Grade = 2.2% Sn = 133,333 tons
= 177,777 tons at 1.65% Sn

Lower Lens

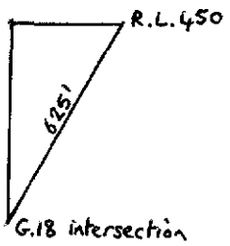
| Bore Hole | Intersection Length | Average Assay % Sn | Estimate of true width % | Estimate Intersect Length (ft) | Weighted Assay Average |
|---|---|---|---|---|---|
| G.18 | 40' | 1.1 | 90% | 36.0 | 39.6 |
| 15 | 8' | 1.3 | 80% | 6.4 | 8.3 |
| 12 | 147' | 1.32 | 35% | 51.4 | 67.9 |
| 11W | 51' | 0.89 | 50% | 25.5 | 22.7 |
| 11 | 30' | 0.81 | 50% | 15.0 | 12.2 |
| | | | | 134.3 | 222.7 |

134.3 ÷ 5
= 26.86 feet
= average true intersection width.

222.7 ÷ 134.3
= 1.65% Sn
= average assay over average true intersection width.

Orebody Length

The calculated straight line distance between the projected intersection at R.L. 450 feet and the projected intersection at R.L. -100 feet is 625 feet. It is considered that 100 feet may be added to this figure as ore reserves above R.L. 450 feet and below R.L. -100 feet.




Graphically calculated figure of Lower Lens orebody length.

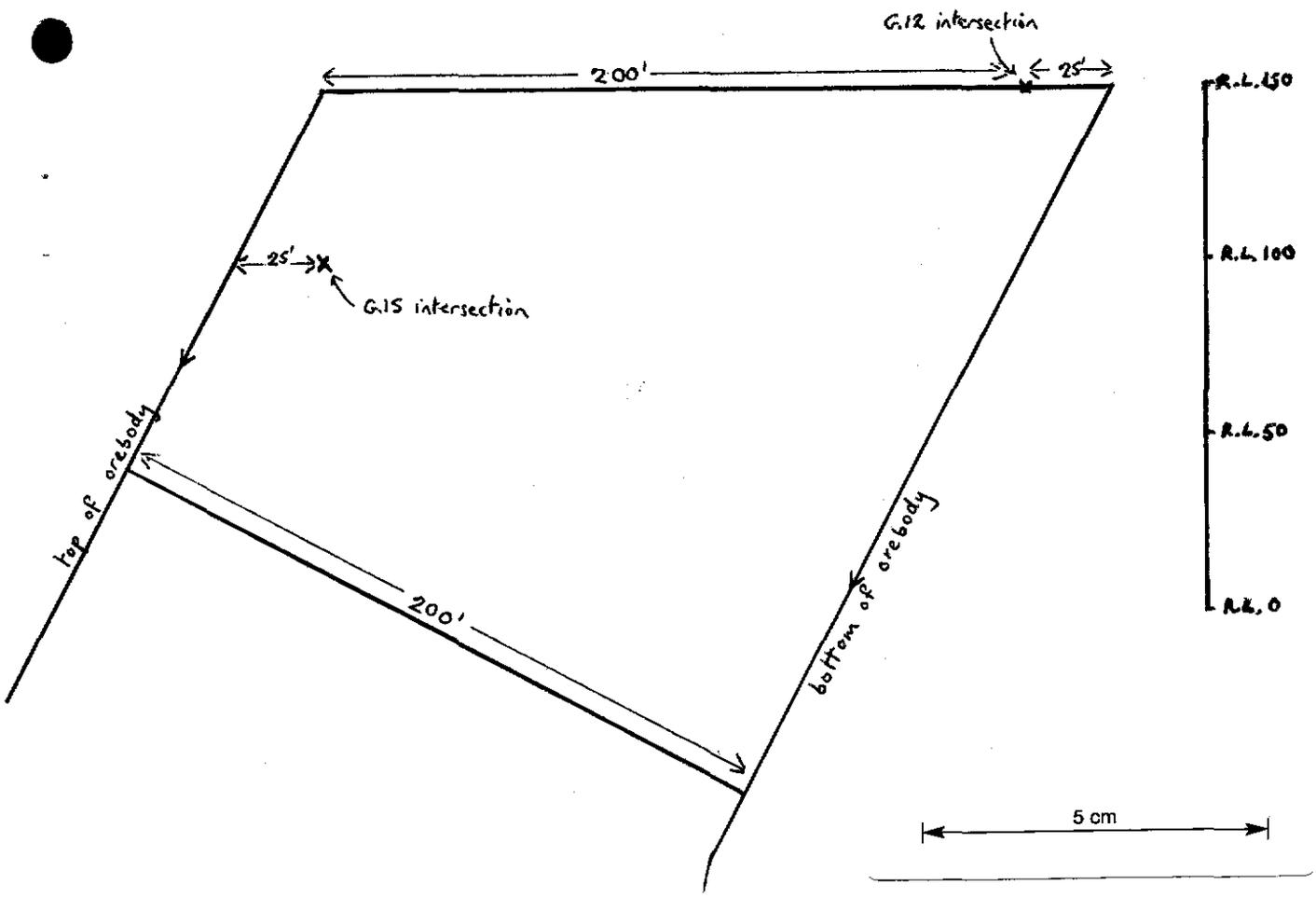
Orebody Depth

This has been calculated graphically as below, using the following premises:

1. The intersection encountered in D.D.H. G.15 at R.L. 107 feet - 113 feet is the top of the orebody.

2. The intersection encountered in D.D.H. G.12 at R.L. 151 feet - 171 feet is the bottom of the orebody.

3. The orebody in a horizontal plane extends to 25 feet either side of these intersections.



The calculated depth of the lower lens is 200 feet.

Calculations: Lower Lens

| | | | |
|---|---|---|---|
| Length | = | 725 ft. | 725' x 27' x 200' |
| Width | = | 27 ft. | = 3,915,000 cubic ft. |
| Depth | = | 200 ft. | at 12 cubic feet to the ton |
| Grade | = | 1.65% Sn | = 326,250 tons. |

Upper Faulted Continuation of Lower Lens

It is a fair geological assumption that the massive pyrite mineralization encountered at the end of Adit No. 5 represents an upper faulted continuation of the theoretical lower lens. If this is the case, then an additional orebody length of 300 feet can be added to reserve calculations for the lower lens (between R.L. 450 feet and R.L. 750 feet) as inferred ore. Calculations for this inferred ore are given below:

Calculations: Upper Inferred Section of Lower Lens

| | | | |
|---|---|---|---|
| Length | = | 300 ft. | 300' x 27' x 200' |
| Width | = | 27 ft. | = 1,620,000 cubic feet |
| Depth | = | 200 ft. | at 12 cubic feet to the ton |
| Grade | = | 1.65% Sn | = 135,000 tons. |

| | | |
|---|---|---|
| Total indicated reserves for upper and lower lens | = | 504,027 tons at 1.65% Sn |
| Total inferred reserves for lower lens | = | 135,000 tons at 1.65% Sn |
| Total Reserves | = | 639,027 tons at 1.65% Sn |
| | = | $639{,}027 \times \frac{1.65}{1.6}$ |
| | = | 658,996 tons at 1.6% Sn |

In addition to these reserves, indicated ore reserves in Clarke's lode as calculated by Mr. C.P. Barnes, stand at 210,000 tons at 0.8% Sn, 4.14 oz/ton Ag, 3.45% Pb.

# ORE RESERVES - QUEEN HILL

## (D. BROWN)

These calculations are based on the assumption that the tin mineralization encountered in diamond drilling on Queen Hill is in the basic form of a single tabloid, and not as en-echelon lenses, as may well be the case when further information is obtained.

| Bore Hole | Inter-section Length | Average Assay % Sn | Estimate of true Width % | Estimate Intersect Length (Ft.) | Weighted Assay Average |
|---|---|---|---|---|---|
| G.18 | 40' | 1.1 | 90% | 36.0 | 39.6 |
| 15 | 8' | 1.3 | 80% | 6.4 | 8.3 |
| 12 | 147' | 1.32 | 35% | 51.4 | 67.9 |
| 11W | 51' | 0.89 | 50% | 25.5 | 22.7 |
| 11 | 30' | 0.81 | 50% | 15.0 | 12.2 |
| 6 | 13' | 0.99 | 90% | 11.7 | 11.6 |
| 5 | 5' | 0.58 | 80% | 4.0 | 2.32 |
| 4 | 34' | 2.24 | 70% | 23.8 | 53.3 |
| 3 | 50' | 2.31 | 90% | 45.0 | 104.0 |
| Adit 2 | 20' | 3.46 | 90% | 18.0 | 62.3 |
| | | | | 236.8 | 384.2 |

236.8 ÷ 10
= 24 feet
= average true intersection width.

384.2 ÷ 236.8
= 1.6226
= 1.6% Sn
= average assay over average true intersection width.

From the Queen Hill glass model, it is assumed that diamond drill holes G.5 and G.6 have intersected the top and northern side of the orebody, thus indicating that the average true width is more properly estimated at approximately 30 feet, rather than the calculated 24 feet.

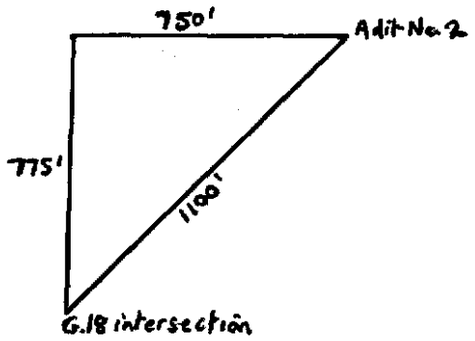
5 cm

The estimated true width of the orebody is given as a percentage of the intersection length from the bore holes and Adit No.2.

Orebody Length

The calculated straight line distance between the intersection at R.L. -111 feet to -125 feet in G.18 to the intersection in Adit No. 2 at R.L. 650 feet is 1,100 feet.

This is a graphically calculated figure and is technically correct. It is considered that another 100 feet may be added to this figure as ore above Adit No.2 and below G.18.

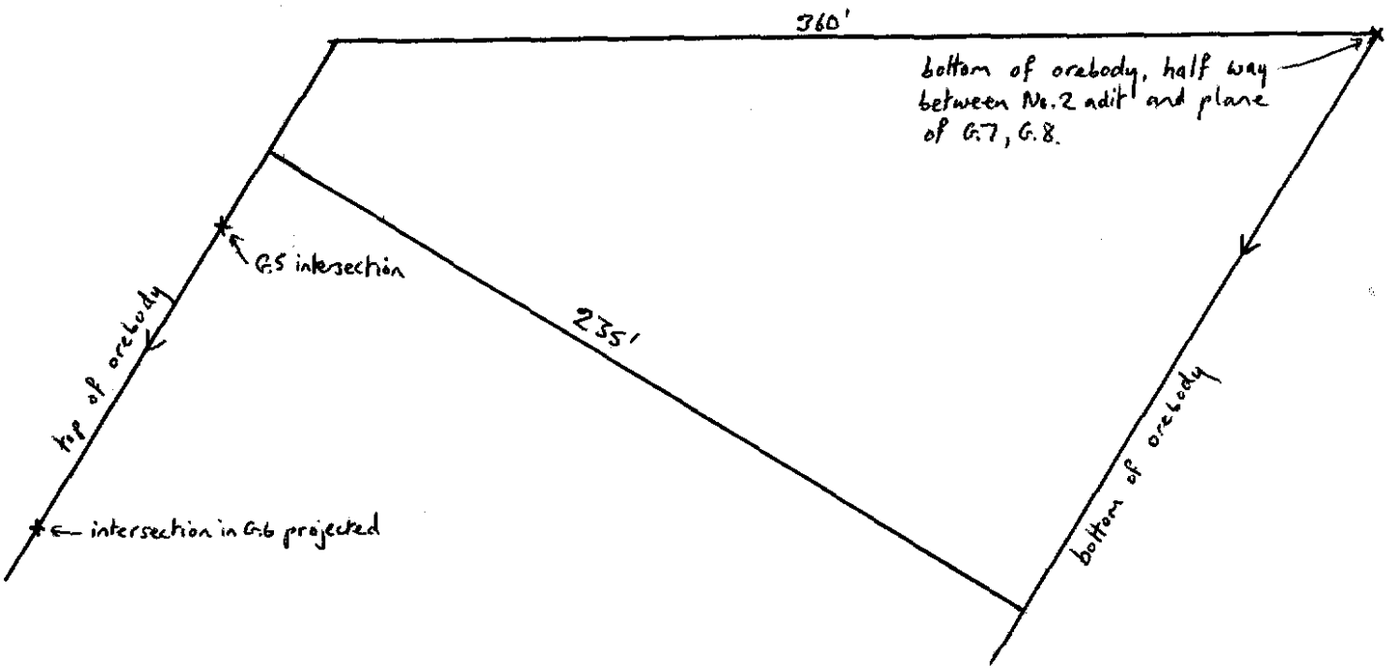



Orebody Depth

Calculated graphically as below, using the following premises:

1. Orebody as defined in Adit No.2 extends to half way between this adit and the plane of D.D.H's G.7 and G.8.

2. The intersections encountered in D.D.H. G.6 at R.L. 515 feet - 528 feet and in G.5 at R.L. 593 feet - 598 feet are the top of the orebody.



The calculated depth of the orebody is 235 feet, however, it is thought a figure of 200 feet would be more appropriate as the method used (above) to determine the depth, although being the most accurate method available, is open to obvious criticism, thus the figure of 200 feet is used.

Calculations:

| | | | |
|---|---|---|---|
| Length | = | 1,200 ft. | 1,200' x 30' x 200' |
| Width | = | 30 ft. | = 7,200,000 cubic ft. |
| Depth | = | 200 ft. | at 12 cubic feet to the ton |
| Grade | = | 1.6% Sn | = 600,000 tons. |

i.e. Inferred ore reserves of 600,000 tons at 1.6% Sn.

Clarke's lode

As calculated by Mr. C.P. Barnes, as present results show no reasons for change.

Indicated ore reserves of 210,000 tons at 0.8% Sn
4.14 oz. Ag.
3.45% Pb.

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| | | | | | |
|---|---|---|---|---|---|
| Property | QUEEN HILL | District Zeehan Tasmania | Hole No. G-1 (3576') | | 72-865 |
| Commenced | 10.12.70 | Location | Tests at | Hor. Comp. | 43° |
| Completed | 18.12.70 | Core Size | Corr. Dip 43° | Vert. Comp. | |
| Coordinates | | | True Brg. 102°M | Logged by | |
| Objective | | | % Recov. | Date | |

Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No. G-1 | Sheet

| Footage From | To | Description | Sample No. | Length | Analysis Sn% | Cu% | Ag oz/t | Pb% | Zn% |
|---|---|---|---|---|---|---|---|---|---|
| 0 | 12 | Loose, cream-grey, fine-medium, clayey, sand; completely weathred spilite and hillwash | | | | | | | |
| 12 | 16 | Pale brown, highly weathered, spilite | | | | | | | |
| 16 | 30 6 | Pale brown, highly to completely weathered spilite. | | | | | | | |
| 30 6 | 45 | Pale grey, moderately to highly weathered, friable spilitic tuff. One major direction of textured alignment observed. | | | | | | | |
| 45 | 65 | Grey, (brownish tinge in places), moderately weathered spilitic tuff. | | | | | | | |
| 65 | 95 | Grey, moderately to slightly weathered spilitic tuff, amygdaloidal in parts; amygdales filled with black material (chlorite?) Occasional 1/16"-1/8" quartz veins dipping mostly at 65°. FeS speck on 1.16" quartz vein at 94'. | | | | | | | |
| 95 | 130 | Grey, fresh to slightly weathered spilitic tuff; amygdaloidal patches. FeS from 116-118'6" as irregular veins up to 1/8" thick, appears to replace tuff matrix in part. FeS in 1/8" quartz vein at 124'. ¼" vein of siderite, galena, zinc blende at 117'7" (45° dip). FeS disseminated from 126-127'. | | | | | | | |
| 130 | 138 | Grey, fresh, spilitic tuff, with coarse grained quartz veins and pods. Irregular 1/16-1/4" thick FeS veining; siderite, galena veining 1/8-½" thick (45° dip) from 134'10"-135'1". | 130-140 | 10' | 1.09 | 0.01 | 0.19 | 0.45 | 0.75 |
| 138 | 152 | Interbedded, grey quartzite and dark grey shale beds dip at 55-70° crisscrossed by abundant quartz and pyrite veins and lenses. FeS disseminated throughout the quartzite. Dip of FeS veins very variable. | 140-150 | 10' | 0.77 | 0.01 | 0.07 | 0.03 | 0.03 |
| 152 | 211 10 | Quartz pyrite lode; brecciated black siltstone is present throughout much of the lode. Quartz varies between angular coarse grained and cryptocrystalline flinty; Some quartz may be sedimentary quartzite. Pyrite is disseminated throughout in | 150-160 | 10' | 1.04 | 0.01 | 0.08 | 0.01 | 0.0 |
| | | | 160-170 | 10' | 1.89 | 0.02 | 0.12 | 0.06 | 0.0 |
| | | | 170-180 | 10' | 3.30 | 0.03 | 0.27 | 0.29 | 0.0 |

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| | | | |
|---|---|---|---|
| Property QUEEN HILL | District | Hole No. G-1 (cont) | |
| Commenced | Location | Tests at | Hor. Comp. |
| Completed | Core Size | Corr. Dip | Vert. Comp. |
| Co-ordinates | | True Brg. | Logged by |
| Objective | | % Recov. | Date |

| Claim | T. Brg. | Collar Dip | Elev. | Length |
|---|---|---|---|---|
| | | | | |

| Footage From | To | Description | Sample No. | Length | Analysis Sn% | Cu% | Ag oz/T | Pb% | Zn% |
|---|---|---|---|---|---|---|---|---|---|
| | | patches and in distinct veins. Sphalerite seen at 170'. Massive fg pyrrhotite 156- | 180-190 | 10' | 3.32 | 0.01 | 0.38 | 0.45 | 0.07 |
| | | 174'. Yellow chalcopyrite associated with pyrite. Dip on pyrite banding at 156' 60°. | 190-200 | 10' | 4.85 | 0.02 | | | |
| | | Siderite 185-191 in lode. Galena as thin 1/8"-½" veins 204-205. Poor recovery 205-207 | 200-210 | 10' | 3.99 | 0.05 | | | |
| 211 | 10 214 | Black siltstone, fresh, some pyrite present as blebs and veins <1/16". Beds dip 73°. | 210-216 | 6' | 0.56 | 0.01 | | | |
| 214 | 229 6 | Grey to dk. grey, interbedded, spilitic tuff and tuffaceous shale, fresh. Quartz | | | | | | | |
| | | siderite veins and blebs abundant, pyrite disseminated, patchy and as veins <1/8" | | | | | | | |
| | | thick, also replacing amygdaloidal filling. Bedding planes not distinct, but are at | 130-210 | 80' | 2.53 | AVERAGE | OVER | 80' | |
| | | high angles (65-80°) | 130-216 | 86' | 2.39 | AVERAGE | OVER | 86' | |
| 229 | 6 242 3 | Black siltstone; fresh, graphitic 240-242'3" with bands and irregular lenses of grey | | | | | | | |
| | | quartzite. Quartzite fron 237' has pyrite disseminated throughout. Bedding dip 70°. | | | | | | | |
| 242 | 3 254 | Dark grey, m to c grained quartzite? (sample no. GS1 252-253'4") veined with quartz | | | | | | | |
| | | and siderite. Crystallisation of quartz has taken place in some open veins 1/16"-1" | | | | | | | |
| | | thick. Many irregular fractures in the core are graphite filled. Pyrite 1" thick | | | | | | | |
| | | vein, and disseminated from 253-254. | | | | | | | |
| 254 | 261 | Black graphitic and pyritic slate; slickensiding dip at 65° at 254'. Bedding dips 70° | | | | | | | |
| 261 | 262 9 | Pale grey chert and angular coarse grained (quartzite?) quartz veining present <¼" | | | | | | | |
| | | thick irregular veins. Pyrite is disseminated in the (quartzite). | | | | | | | |
| 262 | 9 265 | Dark grey-black graphitic and pyritic shale and siltstone; bedding dips at 65°; 70° | | | | | | | |
| | | dip on curved slickensides. Grey quartzitic siltstone 263-263'6". Pyrite as blebs and | | | | | | | |
| | | disseminated throughout. 3" brecciated quartzite at 264'.Fault zone from 264-265; | | | | | | | |
| | | core broken at 264'6" with quartz slickensiding on broken pieces. | | | | | | | |

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| | | | |
|---|---|---|---|
| Property QUEEN HILL | District | Hole No. G-1 (cont) | |
| Commenced | Location | Tests at | Hor. Comp. |
| Completed | Core Size | Corr. Dip | Vert. Comp. |
| Co-ordinates | | True Brg. | Logged by |
| Objective | | % Recov. | Date |

Claim | T. Brg. | Collar Dip | Elev. | Length

| Footage From | Footage To | Description | Sample No. | Length | Analysis |
|---|---|---|---|---|---|
| 265 | 270 | Dark grey-black pyritic siltstone and shale; bedding dips at 70°. <1/8" thick quartz veins and stringers, also occasional pyrite blebs. | | | |
| 270 | 273 6 | Grey, fg quartzite and interbedded dark grey shale; bedding dips at 70°. Pyrite<1/16" thick on joint planes and as blebs. 3' fault plug at 273' dipping at 60°. | | | |
| 273 6 | 281 | Dark grey, black siltstone and shale, graphitic. Quartz veins and stringers present, also pyrite blebs scattered throughout. | | | |
| 281 6 | 282 | Grey, fg, quartzitic and pale grey cg (quartzite?) | | | |
| 282 | 284 | Dark grey shale, with brecciated angular, cg (quartzite?) in a matrix of quartz and siderite with disseminated pyrite from 283-284. | | | |
| 284 | 315 | Dark grey to black siltstone and shale, with occasional pale grey fg quartzite bands; beds dip up to ½" thick throughout; also in veins <1/8" thick and disseminated. Pyrite veins and blebs follow the trend of the bedding. Irregular scattered quartz veins throughout. Minor shear zones at 309-310 and 312-313. | | | |
| 315 | 324 | Interbedded dark grey-black shales and grey quartzites; abundant quartz veins <½" thick along bedding planes and irregularly distributed. Pyrite veins and blebs noticed from 322-324. 1" sub-horizontal fault pug at 318'6". | | | |
| 324 | 335 | Dark grey-black shales; abundant quartz veins 1/16"-4" thick. Thick, irregular forming breccia in places. Pyrite dissem. throughout. Core broken to 329'; fault pug at 326'3" for 9" dipping at 50°. | | | |
| 335 | 343 6 | Dark, grey black siltstone and shale; minor grey quartzite bands. Quartz veins 1/16-1/8" thick on bedding planes (bedding dips 30-60°) and brecciated from 341'6" -343'6". Pyrite as blebs and patches, abundatn from 339-340'. | | | |

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| | | | |
|---|---|---|---|
| Property | District | Hole No. G-1 (cont.) | |
| Commenced | Location | Tests at | Hor. Comp. |
| Completed | Core Size | Corr. Dip | Vert. Comp. |
| Co-ordinates | | True Brg. | Logged by |
| Objective | | % Recov. | Date |

| Claim | T. Brg. | Collar Dip | Elev. | Length |
|---|---|---|---|---|
| | | | | |

| Footage From | Footage To | Description | Sample No. | Length | Analysis Sn% | Cu% | Ag oz/t | Pb | |
|---|---|---|---|---|---|---|---|---|---|
| 343 6 | 347 | Quartz-pyrite-galena lode, brecciated in parts; appears to have been injected along | 343-347.5 | 4.5' | 0.76 | 0.10 | 14.43 | 5.60 | oz |
| | | bedding planes; dips at 58-60°. 5" galena band at 345'6". Some shale bands visible. | 340-347.5 | 7.5' | 0.51 | 0.06 | 8.76 | 3.45 | |
| 347 | 357'6 | Dark grey-black siltstone and shale, minor grey quartzite bands, beds dip at 45-60°. | | | | | | | |
| | | Quartz veins 1/16"-4" thick, mainly along bedding planes. ½" siderite vein at 352'. | | | | | | | |
| | | Pyrite disseminated throughout and as thin veins and blebs. | | | | | | | |
| | 357 6 | E N D O F H O L E | | | | | | | |

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QUEEN HILL — DIAMOND DRILL HOLE G-1

| Footage From | To | Sn | Cu | Ag oz/t | Pb | Zn | Ni | Sb | S | As |
|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 129 | No samples (?) | | | | | | | | |
| 129 | 130 | .10 | <.01 | .03 | <.01 | .03 | .06 | | | |
| 130 | 131 | 2.43 | .02 | .06 | .11 | .20 | .11 | | | |
| 131 | 132 | .18 | .01 | .08 | .03 | .05 | .06 | | | |
| 132 | 133 | .51 | <.01 | .05 | .03 | .09 | .05 | | | |
| 133 | 134 | .07 | .02 | .05 | .03 | .12 | .05 | | | |
| 134 | 135 | 4.90 | .02 | .74 | 2.55 | 3.55 | .07 | | | |
| 135 | 136 | 1.10 | .02 | .56 | 1.65 | 3.20 | .06 | | 5.4 | |
| 136 | 137 | .03 | <.01 | .13 | .02 | .03 | .03 | | | |
| 137 | 138 | .02 | <.01 | .04 | .02 | .07 | .03 | | | |
| 138 | 139 | .70 | .01 | .09 | .03 | .06 | .06 | | | |
| 139 | 140 | 1.05 | .01 | .07 | .04 | .13 | .06 | | | |
| 140 | 141 | .33 | <.01 | .04 | .03 | .03 | .05 | | | |
| 141 | 142 | 1.07 | <.01 | .06 | .02 | .03 | .05 | | | |
| 142 | 143 | .38 | .01 | .08 | .02 | .03 | .03 | | | |
| 143 | 144 | .33 | .01 | .06 | .02 | .03 | .03 | | | |
| 144 | 145 | .25 | .01 | .08 | .03 | .03 | .06 | | | |
| 145 | 146 | .73 | .01 | .10 | .04 | .04 | .05 | | | |
| 146 | 147 | .33 | .01 | .12 | .04. | .03 | .04 | | | |
| 147 | 148 | 2.04 | .01 | .10 | .04 | .04 | .08 | | | |
| 148 | 149 | 2.18 | .01 | .08 | .02 | .04 | .04 | | | |
| 149 | 150 | .07 | <.01 | .05 | .01. | .02 | .02 | | | |
| 150 | 151 | .03 | <.01 | .06 | .01 | .03 | .10 | | | |
| 151 | 152 | .97 | .01 | .06 | .03 | .03 | .06 | | | |
| 152 | 153 | 1.20 | .01 | .08 | .03 | .03 | .07 | | | |
| 152 | 154 | 1.25 | .02 | .08 | .03 | .04 | .08 | | | |
| 154 | 155 | .14 | .01 | .10 | .03 | .04 | .10 | | | |
| 155 | 156 | .95 | .02 | .08 | .10 | .10 | .09 | | | |
| 156 | 157 | 1.35 | .01 | .10 | .07 | .04 | .09 | | | |
| 157 | 158 | 2.91 | .01 | .08 | .05 | .05 | .12 | | | |
| 158 | 159 | .65 | .01 | .09 | .05 | .05 | .08 | | 17.9 | |
| 159 | 160 | 1.00 | .02 | .10 | .05 | .05 | .08 | | | |
| 160 | 161 | 1.25 | .03 | .10 | .05 | .05 | .08 | | | |
| 161 | 162 | 4.40 | .03 | .14 | .05 | .05 | .07 | | | |
| 162 | 163 | 5.50 | .02 | .08 | .06 | .05 | .09 | | | |
| 163 | 164 | .35 | .02 | .11 | .09 | .05 | .10 | | | |
| 164 | 165 | .25 | .02 | .10 | .05 | .07 | .08 | | | |

| Footage From | To | %Sn | %Cu | Ag oz/t | %Pb | %Zn | %Ni | %Sb | %S | A |
|---|---|---|---|---|---|---|---|---|---|---|
| 165 | 166 | 1.52 | .02 | .10 | .05 | .05 | .07 | | | |
| 166 | 167 | 1.00 | .02 | .17 | .05 | .04 | .08 | | | |
| 167 | 168 | 2.93 | .02 | .10 | .06 | .04 | .09 | | | |
| 168 | 169 | .43 | .02 | .14 | .06 | .04 | .08 | | | |
| 169 | 170 | 1.25 | .02 | .16 | .06 | .05 | .10 | | | |
| 170 | 171 | 1.65 | .02 | .13 | .03 | .04 | .07 | | | |
| 171 | 172 | .65 | .03 | .21 | .04 | .04 | .08 | | | |
| 172 | 173 | 1.53 | .03 | .19 | .07 | .04 | .09 | | | |
| 173 | 174 | .60 | .03 | .25 | .04 | .04 | .10 | | | |
| 174 | 175 | 1.00 | .03 | .40 | .19 | .03 | .06 | | | |
| 175 | 176 | 8.50 | .03 | .31 | .28 | .03 | .12 | | | |
| 176 | 177 | 8.00 | .03. | .32 | .82 | .03 | .08 | | | |
| 177 | 178 | 3.58 | .05 | .33 | .46 | .04 | .08 | | | |
| 178 | 179 | 3.55 | .04 | .32 | .40 | .04 | .08 | | | |
| 179 | 180 | 3.89 | .04 | .30 | .62 | .04 | .08 | | | |
| 180 | 181 | 1.74 | .06 | .39 | 1.10 | .05 | .07 | | | |
| 181 | 182 | 1.11 | .06 | .89 | 1.80 | .05 | .07 | | | |
| 182 | 183 | 1.50 | .06 | .38 | .20 | .06 | .06 | | | |
| 183 | 184 | 1.00 | .06 | .35 | .12 | .06 | .07 | | | |
| 184 | 185 | 3.93 | .02 | .49 | .16 | .04 | .06 | | | |
| 185 | 186 | 2.90 | .02 | .44 | .29 | .04 | .05 | | | |
| 186 | 187 | 5.40 | .04 | .23 | .34 | .11 | .05 | | | |
| 187 | 188 | 4.50 | .04 | .31 | .21 | .11 | .05 | | | |
| 188 | 189 | 5.44 | .01 | .17 | .14 | .04 | .05 | | | |
| 189 | 190 | 5.70 | .03 | .21 | .17 | .12 | .06 | | | |
| 190 | 191 | 6.30 | .02 | .14 | .22 | .06 | .05 | | | |
| 191 | 192 | 4.00 | .02 | .25 | .19 | .05 | .06 | | | |
| 192 | 193 | 5.60 | .01 | .20 | .05 | .05 | .05 | | | |
| 193 | 194 | 2.90 | .02 | .25 | .22 | .04 | .05 | | | |
| 194 | 195 | 5.50 | .02 | .19 | .16 | .04 | .05 | | | |
| 195 | 196 | 4.75 | .02 | .21 | .09 | .04 | .05 | | | |
| 196 | 197 | 4.20 | .02 | .20 | .05 | .04 | .04 | | | |
| 197 | 198 | 3.30 | .02 | .19 | .04 | .04 | .05 | | | |
| 198 | 199 | 5.70 | .03 | .17 | .11 | .04 | .04 | | | |
| 199 | 200 | 6.30 | .03 | .30 | .15 | .04 | .05 | | | |
| 200 | 201 | 2.80 | .05 | .40 | .27 | .05 | .05 | | | |
| 201 | 202 | .83 | .05 | .43 | .31 | .05 | .04 | | | |
| 202 | 203 | .51 | .06 | .39 | .20 | .17 | .04 | | | |
| 203 | 204 | 1.00 | .06 | .43 | .27 | .15 | .04 | | | |
| 204 | 205 | 3.20 | .08 | .40 | .28 | .31 | .05 | | | |

| Footage From | To | %Sn | %Cu | Ag oz/t | %Pb | %Zn | %Ni | %Sb | %S | As |
|---|---|---|---|---|---|---|---|---|---|---|
| 205 | 206 | 5.90 | .06 | .16 | .16 | .26 | .05 | ) | | |
| 206 | 207 | 5.80 | .05 | .30 | .15 | .28 | .04 | ) | 13.7 | |
| 207 | 208 | 8.80 | .03 | .21 | .10 | .22 | .05 | ) | | |
| 208 | 209 | 6.10 | .05 | .24 | .08 | 1.15 | .05 | | | |
| 209 | 210 | 4.90 | .04 | .23 | .10 | .12 | .04 | | | |
| 210 | 211 | 1.17 | .03 | .37 | .13 | .04 | .04 | | | |
| 211 | 212 | .32 | .02 | .08 | .08 | .04 | .04 | | | |
| 212 | 213 | .48 | <.01 | .08 | .07 | .05 | .03 | | | |
| 213 | 214 | .47 | <.01 | .08 | .06 | .05 | .03 | | | |
| 214 | 215 | .30 | <.01 | .08 | .03 | .03 | .03 | | | |
| 215 | 216 | .65 | <.01 | .10 | .04 | .04 | .03 | | | |
| 216 | 217 | .35 | <.01 | .06 | .04 | .03 | .03 | | | |
| 217 | 218 | .21 | <.01 | .07 | .02 | .03 | .03 | | | |
| 218 | 219 | .10 | <.01 | .07 | .02 | .07 | .03 | | | |
| 219 | 220 | .21 | .01 | .07 | .02 | .06 | .03 | | | |
| 220 | 221 | .10 | .01 | .10 | .02 | .04 | .03 | | | |
| 221 | 222 | .16 | .02 | .25 | 2.10 | .04 | .04 | | | |
| 222 | 223 | | | | | | | | | |
| 223 | 224 | | | | | | | | | |
| 224 | 225 | | | | | | | | | |
| 225 | 226 | | | | | | | | | |
| 226 | 227 | | | | | | | | | |
| 227 | 228 | | | | | | | | | |
| 228 | 229 | | | | | | | | | |
| 229 | 230 | | | | | | | | | |
| 230 | 231 | | | | | | | | | |
| 231 | 232 | | | | | | | | | |
| 232 | 233 | | | | | | | | | |
| 233 | 234 | | | | | | | | | |
| 234 | 235 | | | | | | | | | |
| 235 | 236 | | | | | | | | | |
| 236 | 237 | | | | | | | | | |
| 237 | 238 | | | | | | | | | |
| 238 | 239 | | | | | | | | | |
| 239 | 240 | | | | | | | | | |
| 240 | 241 | | | | | | | | | |
| 241 | 242 | | | | | | | | | |
| 242 | 243 | | | | | | | | | |
| 243 | 244 | | | | | | | | | |
| 244 | 245 | | | | | | | | | |
| 245 | 246 | | | | | | | | | |

| Footage From | To | %Sn | %Cu | Ag oz/t | %Pb | %Zn | %Ni | %Sb* | %S | Asppm |
|---|---|---|---|---|---|---|---|---|---|---|
| | 340 | No samples? | | | | | | | | |
| 340 | 341'6" | .21 | .01 | .12 | .33 | .13 | .01 | | | |
| 341'6 | 343 | .08 | .01 | .08 | .15 | .03 | .01 | | | |
| 343 | 344'6" | .82 | .09 | 10.0 | 2.30 | .03 | .01 | | | |
| 344'6 | 346 | 1.07 | .11 | 33.0 | 3.50 | .04 | .01 | | | |
| 346 | 347'6" | .41 | .09 | .31 | 11.0 | .04 | .02 | | | |
| 347'6 | 349 | .01 | <.01 | .06 | .03 | .01 | .01 | | | |
| 349 | 350 | .10 | .01 | .16 | .06 | .02 | | <.01 | | |
| 350 | 351 | .11 | .01 | .13 | .07 | .04 | | 16ppm | | 80pp |
| 351 | 352 | .21 | .01 | .19 | .15 | .04 | | <.01 | | |
| 352 | 353 | .21 | .03 | .13 | .10 | .06 | | <.01 | | |
| 354 | 355 | .24 | .07 | .19 | .16 | .05 | | <.01 | | |
| 355 | 356 | .21 | .03 | .14 | .19 | .10 | | 10ppm | | 25pp |
| 356 | 357 | .30 | .01 | .18 | .12 | .04 | | <.01 | | |
| 357 | 357'6" | .26 | .01 | .25 | .21 | .03 | | <.01 | | |

*% unless otherwise indicated

050 764051

| | | | | |
|---|---|---|---|---|
| Property QUEEN HILL | District Zeehan, Tasmania | Hole No. G-2 | | 72-865 |
| Commenced 7.1.71 | Location | Tests at | Hor. Comp. 46° | |
| Completed 13.1.71 | Core Size | Corr. Dip | Vert. Comp. | |
| Co-ordinates | | True Brg. 128° | Logged by PO'Shea | |
| Objective | | % Recov. | Date | |

| Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No. | Sheet |
|---|---|---|---|---|---|---|
| | | | | | | |

| Footage From | To | Description | Sample No. | Length | Analysis |
|---|---|---|---|---|---|
| 0 | 53 | Grey, moderately to highly weathered, spilitic tuff. | | | |
| 53 | 96'6" | Grey, moderately to slightly weathered, spilitic tuff, amygdaloidal in parts | | | |
| 96'6" | 157'4" | Grey-buff, slightly weathered, spilitic tuff; much is brecciated; amydaloidal in part | | | |
| 157'4" | 157'9" | As above, with ¾" thick siderite band (dip 60°) and disseminated flecks of $FeS_2$. | | | |
| 157'9" | 225 | Grey, moderately to slightly weathered, spilitic tuff; often brecciated, some amygdaloidal. ½" siderite vein (dip 65°) with PbS specks at 174'. | | | |
| 225 | 289'5" | Grey, slightly weathered (occasional moderately weathered bands) spilitic tuff, mostly brecciated, some amygdaloidal. $FeS_2$ as 1/16"-¼" 70° dipping veins and finely disseminated specks from 225-228'6". ¾" $FeS_2$ and siderite vein, 75° dip at 237'. Minor irregular 1/16"-1/8" $FeS_2$ veins from 233'6"-237' and 244'-248'. $FeS_2$ veins and blebs from 285'6", replacing amygdaloidal filling at 287'. | | | |
| 289'5" | 290'8" | Pyritic black shale, bedding dips at 35°. | | | |
| 290'8" | 291'8" | Black siltstone, abundant $FeS_2$ blebs and cubes 1/16" thick quartz veins and graphite. | | | |
| 291'8" | 298'6" | Black slate and siltstone, $FeS_2$ disseminated throughout. Bedding plane dip of 60°. ¼" soft clay on 5° fault plane at 297'9". | | | |
| 298'6" | 305 | Grey-black slates and siltstones; $FeS_2$ flecks throughout; occasional $FeS_2$ blebs. Bedding plane dip at 60°. | | | |
| 305 | 314 | Black slates; $FeS_2$ specks throughout; 60° dipping minor fault at 306'. | | | |
| 314 | 324'3" | Black slates, very broken and brecciated; major fault zone. Some quartz veins at 323-324'. Core mostly shattered. | | | |
| 324'3" | 328 | Siderite-quartz-$FeS_2$ lode material; minor galena at 325'; lode has country rock ~~minor chalcopyrite specks.~~ | | | |

051

| | | | |
|---|---|---|---|
| Property QUEEN HILL 764052 | District | Hole No. G-2 (cont.) | |
| Commenced | Location | Tests at | Hor. Comp. |
| Completed | Core Size | Corr. Dip | Vert. Comp. |
| Co-ordinates | | True Brg. | Logged by |
| Objective | | % Recov. | Date |

Claim | T. Brg. | Collar Dip | Elev. | Length

| Footage From | To | Description | Sample No. | Length | Analysis Sn% | Cu% | Ag oz/t | Pb% | Zn% |
|---|---|---|---|---|---|---|---|---|---|
| 328 | 333 | Highly contorted black slate, abundant quartz veins 1/16" thick. Minor $FeS_2$ veins 1/16" thick. | | | | | | | |
| 333 | 343 3 | Black slate, bedding dip at 63° with irregular $FeS_2$ veins and blebs 1/16-¼" thick. | 337-8 | 1' | 1.31 | .02 | .25 | .02 | .02 |
| 343 3 | 344 9 | Siderite-$FeS_2$ banded lode material; occasional bands of host rock; also 1/16" galena band at 343'9". Bands dip at 68°. | 338-9 | 1' | .19 | .01 | .21 | .01 | .02 |
| | | | 339-40 | 1' | 1.02 | .01 | .34 | .03 | .05 |
| 344 9 | 376 | Grey to dark grey slate, contorted in places; irregular veins and patches of quartz throughout; irregular $FeS_2$ specks and 1/16"-½" veins, mostly between 345 and 353'. | 343-4 | 1' | 5.40 | .04 | 7.4 | 10.1 | .23 |
| | | | 350-1 | 1' | 2.32 | .01 | .14 | .04 | .01 |
| 376 | 405 6 | Grey slates, minor grey quartzite bands; abundant quartz veins 1/8" thick from 394-405'6". Bedding planes dip of 53° at 395'; beds are often contorted; core very broken from 402-403' and 404-405'6" - minor faults. | | | | | | | |

764053

QUEEN HILL — DIAMOND DRILL HOLE G-2

| Footage From | To | %Sn | %Cu | Ag oz/t | %Pb | %Zn | %Sb | %S |
|---|---|---|---|---|---|---|---|---|
| 0 | 285 | No samples (?) | | | | | | |
| 285 | 286 | .03 | .01 | .10 | .48 | .21 | <.01 | 2.6 |
| 286 | 287 | .02 | .01 | .10 | .01 | .12 | <.01 | |
| 287 | 288 | .03 | .01 | .09 | .02 | .05 | <.01 | |
| 288 | 289 | .05 | <.01 | .07 | .02 | .11 | <.01 | |
| 289 | 290 | .22 | .01 | .46 | 1.28 | .31 | .01 | |
| 290 | 291 | .10 | .01 | .16 | .03 | .03 | <.01 | 6.4 |
| 291 | 292 | .01 | .01 | .08 | .03 | .03 | <.01 | |
| 292 | 324 | No samples (?) | | | | | | |
| 324 | 325 | .05 | .02 | .54 | 1.00 | .91 | .01 | |
| 325 | 326 | .04 | .03 | 1.58 | 3.55 | 1.51 | .02 | |
| 326 | 327 | .56 | .02 | .8 | 1.64 | 2.80 | .01 | |
| 327 | 328 | .15 | .02 | .65 | 1.24 | .58 | .01 | |
| 328 | 337 | No samples (?) | | | | | | |
| 337 | 338 | 1.31 | .02 | .25 | .02 | .02 | .01 | |
| 338 | 339 | .19 | .01 | .21 | .01 | .02 | <.01 | |
| 339 | 340 | 1.02 | .01 | .34 | .03 | .05 | <.01 | 11.3 |
| 340 | 341 | | | | | | | |
| 341 | 342 | | | | | | | |
| 342 | 343 | | | | | | | |
| 343 | 344 | 5.40 | .04 | 7.4 | 10.1 | .23 | .02 | |
| 344 | 345 | .80 | .01 | .68 | .40 | .02 | .01 | |
| 345 | 346 | .17 | .01 | .15 | .01 | .01 | <.01 | |
| 346 | 347 | .11 | .01 | .10 | .01 | .01 | <.01 | |
| 347 | 348 | .27 | .01 | .11 | .01 | .01 | <.01 | |
| 348 | 349 | .04 | .01 | .16 | .01 | .01 | <.01 | |
| 349 | 350 | .56 | .01 | .08 | .02 | .01 | <.01 | |
| 350 | 351 | 2.32 | .01 | .24 | .04 | .01 | <.01 | |
| 351 | 352 | .22 | .01 | .13 | .02 | .01 | <.01 | 10.7 |

# Drill Hole Record

764054

Comnico

72-865

| | | | |
|---|---|---|---|
| Property QUEEN HILL | District Zeehan, Tasmania | Hole No. G-3 (307'6") | |
| Commenced 18.1.71 | Location | Tests at | Hor. Comp. |
| Completed 22.1.71 | Core Size | Corr. Dip -67½° | Vert. Comp. |
| Co-ordinates | | True Brg. 280°M | Logged by |
| Objective | | % Recov. | Date |

Claim | T. Brg. | Collar Dip | Elev. | Length

| Footage From | To | Description | Sample No. | Length | Analysis Sn% | Cu% | Ag oz% | Pb | Zn |
|---|---|---|---|---|---|---|---|---|---|
| 0 | 10 6 | Dark grey slate and interbedded grey quartzite; $FeS_2$ specks at 7'. Core very broken. | | | | | | | |
| 10 6 | 54 | Dark grey slates and shales interbedded with grey quartzite bands; quartzite bands often broken due to folding. Small scale ptygmatic folding at 38'6". Bedding plane dip of 55° at 20'. 1/8" fault zone at 26'6" dipping at 60°. Occasional blebs and veins ( 1/8" thick) of $FeS_2$ from 31' down. 1" thick quartz vein with galena at 50' dipping at 55°. 1/8" sphalerite veins at 44' and 44'2" dipping at 50°. | | | | | | | |
| 54 | 70 | Grey-dark grey slate and shale with interbedded grey quartzite bands 1/16-½" thick. Bedding plane dip of 75° at 60'. Frequent minor faults with displacements of 1/16"-¼" small scale ptygmatic folding fairly common. | | | | | | | |
| 70 | 78 | Grey quartzite, very minor grey shale; bedding plane dip 50°; $FeS_2$ specks throughout, also occasional 1/8-1/16" $FeS_2$ veins. | | | | | | | |
| 78 | 159 | Dark grey shales, siltstones (often laminated) and interbedded grey quartzite bands. Bedding plane dip of 45°; occasional quartz veins 1/16-½" thick; irregular. Minor faults with displacements of 1/16-¼" fairly common; beds often contorted due to small scale ptygmatic folding. Very brecciated from 157-159 due to faulting. ¾" $FeS_2$ blebs at 88'; ¼" $FeS_2$ vein at 100'6" together with dissem. $FeS_2$. 8 1/8"-¼" $FeS_2$ veins and sphalerite veins from 107-111; dip generally at 50°. 3 1/8" $FeS_2$ veins at 135'; dip 60° | | | | | | | |
| 159 | 160 | Black puggy shale; $FeS_2$ from 159-159'3" - fault zone | | | | | | | |
| 160 | 173 6 | Dark grey-black shale, $FeS_2$ specks throughout; minor grey quartzite bands which are often brecciated. Bedding plane dip of 40° at 173'. | | | | | | | |

054 764055

| | | | |
|---|---|---|---|
| Property QUEEN HILL | District Zeehan, Tasmania | Hole No. G-3 (cont) | |
| Commenced | Location | Tests at | Hor. Comp. |
| Completed | Core Size | Corr. Dip | Vert. Comp. |
| Co-ordinates | | True Brg. | Logged by |
| Objective | | % Recov. | Date |

Claim | T. Brg. | Collar Dip | Elev. | Length

| Footage From | To | Description | Sample No. | Length | Analysis Sn % | Cu % | Fe % | Pb % | Zn % |
|---|---|---|---|---|---|---|---|---|---|
| 177 | 187 | Black shale with brecciated quartzite fragments and irregular network of quartz veins | 176-186 | 10' | Sn 0.39 | | 2.45 | 3.41 | 0.07 |
| | | $FeS_2$ dissem. throughout and as blebs up to ¼" across. | | | | | | | |
| 187 | 201 | Grey spilitic tuff, abundant angular pieces of tuff up to 1" across, cemented by | | | | | | | |
| | | tuffaceous matrix. Irregular quartz veins frequent. $FeS_2$ disseminated from 189-191. | | | | | | | |
| 201 | 216 6 | Grey-black spilitic tuff, frequent angular pieces, abundant quartz veining (iirequlan) | | | | | | | |
| | | Amygdaloidal texture present. $FeS_2$ as 1/8" thick veins and replacing amygdaloidal | | | | | | | |
| | | filling from 214-216'6". | | | | | | | |
| 216 6 | 265 | Quartz-pyrite lode material; minor inclusions of black siltstone and grey quartzite. | 216-226 | 10' | 2.02 | Tr | 0.16 | 0.07 | - |
| | | Frequent irregular quartz veins throughout. Lode noticeably brecciated from 216'6" | 226-236 | 10' | 1.35 | - | 0.15 | 0.09 | |
| | | -237'; very brecciated from 257'6"-265' (fault zone). Pyrrhotite present throughout, | 236-246 | 10' | 1.85 | - | 0.23 | 0.45 | |
| | | most noticeably from 227-237 and 238-245. | 246-256 | 10'* | 3.71 | - | 0.37 | 0.84 | |
| 265 | 274 6 | Grey to pale buff chert, dip of bedding constant at 50°. $FeS_2$ patches abundant 265-7 | 256-266 | 10' | 2.65 | Tr | 0.31 | 0.26 | |
| 274'6 | 276 | Grey chert, brecciated with tuffaceous matrix , abundant disseminated $FeS_2$. | 266-276 | Average 5.0' | 2.31 | - | 0.24 | 0.36 | |
| 276 | 279 | Grey spilitic tuff, minor irregular quartz veins 1/16-1/8" thick, bedding dips 55°. | | | | | | | |
| 279 | 281 | Quartz-$FeS_2$-sphalerite-chalcopyrite lode material, brecciated appearance suggests | | | | | | | |
| | | emplacement along a fault, siderite gangue present. | | | | | | | |
| 281 | 307 6 | Grey spilitic tuff, frequent angular pieces, occasional scattered flecks of $FeS_2$. | | | | | | | |
| | | bedding plane dips of 50°. | | | | | | | |
| | 307'6" | END OF HOLE. | | | | | | | |

* Two feet core loss

QUEEN HILL — DIAMOND DRILL HOLE G-3

| Footage From | To | %Sn | %Cu | Ag oz/t | %Pb | %Zn | %Sb | Bi ppm | %S |
|---|---|---|---|---|---|---|---|---|---|
| 0 | 172 | No samples (?) | | | | | | | |
| 172 | 173 | .03 | .01 | .14 | .07 | .05 | <.01 | | |
| 173 | 174 | .21 | .06 | .71 | .60 | .05 | <.01 | | |
| 174 | 175 | .16 | .02 | .70 | 1.77 | .06 | <.01 | | |
| 175 | 176 | .42 | .03 | .34 | .65 | .03 | <.01 | | |
| 176 | 177 | 1.25 | .43 | 7.40 | 10.6 | .04 | <.01 | 180 | |
| 177 | 178 | .27 | .01 | .20 | .04 | .04 | <.01 | | |
| 178 | 179 | .09 | .02 | .66 | .88 | .05 | <.01 | | |
| 179 | 180 | .24 | .02 | .30 | .08 | .04 | <.01 | | |
| 180 | 181 | .25 | .02 | .48 | .10 | .03 | <.01 | | |
| 181 | 182 | .15 | .03 | 2.24 | 2.60 | .06 | <.01 | | |
| 182 | 183 | .04 | .01 | .28 | .08 | .04 | <.01 | | |
| 183 | 184 | .10 | .02 | .66 | .90 | .07 | <.01 | | |
| 184 | 185 | .86 | .03 | 7.8 | 10.5 | .70 | <.01 | 90 | |
| 185 | 186 | .70 | .02 | 3.45 | 8.30 | .14 | <.01 | | |
| 186 | 187 | .17 | .02 | .43 | .12 | .05 | <.01 | | |
| 187 | 188 | .28 | .01 | .11 | .02 | .03 | <.01 | | |
| 188 | 215 | No sample (?) | | | | | | | |
| 215 | 216 | .30 | .01 | .05 | .01 | .03 | <.01 | | 8.4 |
| 216 | 217 | .93 | .01 | .11 | .02 | .03 | <.01 | | |
| 217 | 218 | 3.61 | .02 | .15 | .24 | .03 | <.01 | | |
| 218 | 219 | .39 | .02 | .27 | .05 | .03 | <.01 | | |
| 219 | 220 | .79 | .14 | .34 | .03 | .03 | <.01 | | |
| 220 | 221 | 3.07 | .01 | .18 | .02 | .03 | <.01 | | |
| 221 | 222 | 2.00 | .02 | .08 | .02 | .02 | <.01 | | |
| 222 | 223 | .85 | .01 | .11 | .02 | .03 | <.01 | | 13.2 |
| 223 | 224 | 1.53 | .02 | .09 | .02 | .16 | <.01 | | |
| 224 | 225 | .56 | .02 | .17 | .06 | .02 | <.01 | | |
| 225 | 226 | 5.90 | .02 | .24 | .24 | .04 | <.01 | | |
| 226 | 227 | .47 | .02 | .22 | .25 | .04 | <.01 | | |
| 227 | 228 | .21 | .02 | .20 | .20 | .04 | <.01 | | |
| 228 | 229 | 2.27 | .03 | .14 | .14 | .04 | <.01 | | |
| 229 | 230 | 5.15 | .02 | .16 | .05 | .04 | <.01 | | |
| 230 | 231 | .61 | .02 | .21 | .03 | .05 | <.01 | | |
| 231 | 232 | .18 | .02 | .12 | .03 | .04 | <.01 | | |
| 232 | 233 | 1.98 | .02 | .13 | .04 | .05 | <.01 | | |

| Footage From | To | %Sn | %Cu | Ag oz/t | %Pb | %Zn | %Sb | %S |
|---|---|---|---|---|---|---|---|---|
| 233 | 234 | .52 | .01 | .10 | .03 | .04 | <.01 | |
| 234 | 235 | .63 | .01 | .14 | .07 | .03 | <.01 | |
| 235 | 236 | 1.51 | .01 | .08 | .06 | .04 | <.01 | |
| 236 | 237 | .64 | .01 | .17 | .05 | .04 | <.01 | |
| 237 | 238 | .05 | .02 | .14 | .02 | .02 | <.01 | |
| 238 | 239 | .21 | .03 | .12 | .19 | .02 | <.01 | |
| 239 | 240 | .26 | .02 | .24 | .24 | .03 | <.01 | |
| 240 | 241 | .35 | .03 | .40 | .26 | .04 | <.01 | |
| 241 | 242 | 2.32 | .03 | .34 | .25 | .04 | <.01 | |
| 242 | 243 | 2.77 | .03 | .23 | .24 | .05 | <.01 | |
| 243 | 244 | 3.92 | .03 | .12 | .35 | .05 | <.01 | |
| 244 | 245 | 2.34 | .03 | .31 | 1.35 | .15 | <.01 | |
| 245 | 246 | 5.70 | .03 | .23 | 1.62. | .45 | <.01 | |
| 246 | 247 | 3.62 | .04 | .51 | 1.95 | 1.20 | <.01 | |
| 247 | 248 | 2.51 | .03 | .75 | 1.80 | 1.25 | <.01 | |
| 248 | 249 | 2.66 | .03 | .48 | 1.30 | 1.05 | .01 | |
| 249 | 250 | 6.10 | .02 | .44 | .58 | .21 | <.01 | |
| 250 | 251 | 4.26 | .03 | .33 | 1.00 | .90 | .01 | |
| 251 | 252 | 5.35 | .03 | .36 | .98 | .20 | .01 | |
| 252 | 253 | 6.80 | .03 | .45 | .66 | .16 | <.01 | |
| 253 | 254 | 4.84 | .03 | .35 | .51 | .19 | <.01 | |
| 254 | 255 | 5.70 | .03 | .34 | .78 | 2.40 | <.01 | 5.0 |
| 255 | 256 | 4.84 | .03 | .44 | .82 | .30 | <.01 | |
| 256 | 257 | 3.58 | .03 | .33 | 1.40 | .21 | <.01 | |
| 257 | 258 | 2.36 | .02 | .71 | 1.50 | .15 | .01 | |
| 258 | 259 | 4.05 | .03 | .34 | .30 | .62 | <.01 | |
| 259 | 260 | 2.50 | .01 | .87 | .11 | .13 | <.01 | |
| 260 | 261 | 3.58 | .01 | .16 | .03 | .03 | <.01 | |
| 261 | 262 | 3.20 | .01 | .24 | .02 | .03 | <.01 | |
| 262 | 263 | 1.45 | .01 | .14 | .01 | .05 | <.01 | |
| 263 | 264 | 2.50 | .01 | .10 | .15 | .05 | <.01 | |
| 264 | 265 | 3.06 | .01 | .12 | .13 | .08 | <.01 | |
| 265 | 266 | .25 | .01 | .09 | .02 | .02 | <.01 | |
| 266 | 267 | .05 | <.01 | .07 | .01 | .01 | <.01 | |
| 267 | 268 | .04 | <.01 | .01 | .01 | .01. | <.01 | |
| 268 | 269 | .08 | <.01 | .05 | .02 | .03 | <.01 | |
| 269 | 270 | .08 | <.01 | .06 | .04 | .04 | <.01 | 1.2 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Property | QUEEN HILL 764058 | District | Zeehan, Tasmania | Hole No. | G-4 (282') | Claim | T. Brg. | Collar Dip |
| Commenced | | Location | | Tests at | | Hor. Comp. | Elev. | Length |
| Completed | | Core Size | | Corr. Dip | 67½° | Vert. Comp. | Hole No. | G-4 Sheet |
| Co-ordinates | | | | True Brg. | 299°M | Logged by | | |
| Objective | | | | % Recov. | | Date | | |

| Footage From | To | Description | Sample No. | Length | Analysis |
|---|---|---|---|---|---|
| 0 | 14 3 | Dark grey slates and shales, minor grey quartzite bands1/8-½" thick; quartzite bands often deformed more so than the shale bands. Some quartz veins 1/16-1/8" thick, irregularly distributed. | | | |
| 4 3 | 28 6 | Grey to dark grey-black highly contorted shales and slates; minor highly contorted grey quartzite bands. 60° dip slickensides at 21'6". Bedding plane dip of 58° at 23'. Irregular quarz veins abundant; poor recovery from 17'6"-21' and 23-26'. | | | |
| 28 6 | 53 | Grey to dark grey-black siltstone and shale interbedded with grey quartzite bands 1/16-2" thick ( 1/8") highly contorted from 37-41 (with abundant irregular quartz veins) otherwise only occasional quartz veins. Bedding dip varies between 45° and 60°, strong folding evident. ¼" siderite band with 7° dip at 51'. | | | |
| 53 | 73 | Dark grey shales and slates; highly contorted, with interbedded grey quartzite bands 1/16"-1" thick often showing "boudinage" structure. Bedding dip of 50° at 60'. Strong shearing evident. ½" and ¾" $FeS_2$ sphalerite and galena band dip at 60° at 56'. | | | |
| 73 | 75 3 | Grey quartzite, sheared, abundant irregular quartz veins. | | | |
| 75 3 | 90 | Grey siltstone, dark grey shale and grey quartzite bands 1/16-2" thick. Occasional irregular quartz and siderite 1/16-1/8" thick. 3 1/16" $FeS_2$ veins dip at 70° at 89'. $FeS_2$ specks and blebs in quartz at 82'. | | | |
| 90 | 126 | Interbedded grey siltstone, dk. grey shale and grey quartzite (often micaceous). Bedding dip varies between 25-50° due to folding. Irregular quartz and siderite veins 1/16-1/8" thick.scattered throughout. ½" $FeS_2$ and sphalerite vein at 65° at 90'. $FeS_2$ specks in quartzite from 99-100. 1½" $FeS_2$ and sphalerite vein dip at 55° at 101' 4" $FeS_2$ and sphalerite vein dip at 40° at 103'4". 1/8" sphalerite vein dip at 40° at | | | |

058

764059

| Property | QUEEN HILL | District | | Hole No. | G-4 (con | | |
|---|---|---|---|---|---|---|---|
| Commenced | | Location | | Tests at | | Hor. Comp. | |
| Completed | | Core Size | | Corr. Dip | | Vert. Comp. | |
| Co-ordinates | | | | True Brg. | | Logged by | |
| Objective | | | | % Recov. | | Date | |

| Claim | T. Brg. | Collar Dip | Elev. | Length |
|---|---|---|---|---|
| | | | | |

| Footage From | To | Description | Sample No. | Length | Analysis Sn% | Cu% | Ag oz/t | Pb | Zn |
|---|---|---|---|---|---|---|---|---|---|
| | | LLL"L)". 1 ¾" $FeS_2$ and sphalerite vein, dip 40° at 113'8". | | | | | | | |
| 126 | 152 | Grey to dk grey shales and slates with minor interbedded quartzite bands. Core | | | | | | | |
| | | contorted. 1/16" irregular quartz and siderite veins common. $FeS_2$ blebs and 1/16-1/8" | | | | | | | |
| | | veins from 144'6"-147'. Bedding dip 65° at 132. | | | | | | | |
| 152 | 170 | Contorted grey-black shales and slates with interbedded grey quartzite from 152-162, | | | | | | | |
| | | then grey-black slate with abundant brecciated fragments and quartzite from 162-170. | | | | | | | |
| | | ¼" $FeS_2$ vein dip at 45° at 153'6" in brecciated slate. Occasional $FeS_2$ blebs 162-170'. | | | | | | | |
| 170 | 179 | Brecciated quartzite fragments in black shale matrix; $FeS_2$ veins and blebs becoming | | | | | | | |
| | | abundant; very abundant 174-175'6"; veins irregular, up to ½" thick; some siderite | | | | | | | |
| | | and quartz veins. | | | | | | | |
| 179 | 182 6 | Solid quartz $FeS_2$ lode material dip at 34°. Also galena veins at 182. | 179-181 | 2' | 0.62 | 0.02 | | | |
| 182 6 | 184 9 | Black siltstone-grey quartzite breccia with abundant $FeS_2$ veins and blebs. | 181-183 | 2' | 8.30 | 4.51 | | | |
| 184 9 | 189 | $FeS_2$-quartz-galena-siderite lode breccia; very soft and puggy in last 6"; poor | 183-190 | 7' | 0.64 | - | 596 | 7.44 | |
| | | recovery in last 6". | | | | | | | |
| 189 | 189 7 | Grey spilitic with $FeS_2$ and galena specks. | 179-190 | 11'~ | Snt 2.04 | 0.83 | 11.49 | 5.89 | |
| 189 7 | 194 6 | Grey spilitic tuff, $FeS_2$ specks throughout. | 179-190 | 11' | Snc 1.22 | | | | |
| 194 6 | 195 9 | Quartz-siderite lode with $FeS_2$ disseminated throughout. | | | | | | | |
| 195 9 | 219 6 | Grey spilitic tuff, some angular fragments, occasional 1/16" irregular siderite veins | | | | | | | |
| | | some $FeS_2$ specks. | | | | | | | |
| 219 6 | 232 | Grey spilitic tuff, abundant irreg. siderite veins; $FeS_2$ specks 229-232 | | | | | | | |
| 232 | 272 | Quartz-$FeS_2$-siderite lode; abundant irreg. white qtz veins criss-crossing lode | 238-248 | 10' | 1.47 | Tr | 0.04 | 0.07 | |
| | | material; the lode permeates spilite which has been silicified in places. | 248-258 | 10' | 2.63 | | 0.04 | 0.04 | |

Property 764060 | District | Hole No. G-4 (cont)

Commenced | Location | Tests at | Hor. Comp.

Completed | Core Size | Corr. Dip | Vert. Comp.

Co-ordinates | True Brg. | Logged by

Objective | % Recov. | Date

| Claim | T. Brg. | Collar Dip | Elev. | Length |
|---|---|---|---|---|
| | | | | |

| Footage From | Footage To | Description | Sample No. | Length | Analysis Sn% | Cu% | Ag oz/t | Pb% | Zn% |
|---|---|---|---|---|---|---|---|---|---|
| 272 | 282 | Grey spilitic tuff containing many angular spilite fragments. | 268-272 | 4' | 3.35 | | 0.07 | 0.01 | |
| | | Average | 238-272 | 34' | 2.24 | | 0.055 | 0.056 | |
| | 282 | E N D O F H O L E | | | | | | | |

QUEEN HILL — DIAMOND DRILL HOLE G-4

| Footage From | Footage To | %Sn | %Cu | Ag oz/t | %Pb | %Zn | Sb* ppm | As ppm | %S |
|---|---|---|---|---|---|---|---|---|---|
| 0 | 110 | No samples (?) | | | | | | | |
| 110 | 111 | .22 | .02 | . | 1.20 | 19.5 | 400 | 15 | |
| 111 | 168 | No samples (?) | | | | | | | |
| 168 | 169 | .05 | .01 | .13 | .08 | .02 | <.01% | | 1.8 |
| 169 | 170 | .21 | .01 | .14 | .11 | .02 | <.01% | | |
| 170 | 171 | .16 | .01 | .13 | .08 | .02 | " | | |
| 171 | 172 | .03 | <.01 | .14 | .03 | .01 | " | | |
| 172 | 173 | .21 | .01 | .68 | .03 | .03 | 4 | 25 | |
| 173 | 174 | .21 | .01 | .68 | .14 | .03 | <.01% | | |
| 174 | 175 | .38 | <.01 | .26 | .06 | .03 | " | | |
| 175 | 176 | .40 | .01 | .42 | .11 | .04 | <.01% | | |
| 176 | 177 | .20 | .01 | .18 | .08 | .02 | " | | |
| 177 | 178 | .30 | .01 | .20 | .03 | .02 | .14 | 50 | |
| 178 | 179 | .39 | .01 | .19 | .06 | .03 | .01% | | |
| 179 | 180 | .70 | .02 | .50 | .13 | .02 | " | | |
| 180 | 181 | .64 | .02 | .94 | .21 | .03 | " | | |
| 181 | 182 | 10.2 | 5.55 | 45.8 | 2.28 | .33 | " | | |
| 182 | 183 | 6.40 | 3.47 | 37.4 | 10.1 | .23 | 100 | 200 | |
| 183 | 184 | .60 | .01 | .39 | .18 | .45 | .01% | | |
| 184 | 185 | .49 | .01 | .21 | .20 | .07 | " | | |
| 185 | 186 | .45 | .01 | 5.50 | 7.60 | .11 | " | | |
| 186 | 187 | .40 | .01 | 7.70 | 12.2 | .14 | " | | |
| 187 | 188 | .70 | .01 | 17.6 | 19.0 | .63 | 100 | 50 | |
| 188 | 189 | 1.10 | <.01 | 3.36 | 5.10 | .15 | <.01% | | |
| 189 | 190 | .80 | <.01 | 7.00 | 7.80 | .94 | " | | |
| 190 | 191 | .16 | .01 | .30 | .40 | .12 | " | | |
| 191 | 192 | .15 | .01 | .43 | .55 | .13 | " | | |
| 192 | 193 | .10 | .01 | .10 | .11 | .10 | 2 | 5 | |
| 193 | 194 | .05 | .01 | .09 | .04 | .02 | <.01% | | 3.2 |
| 194 | 195 | .08 | .01 | .09 | .05 | .02 | " | | |
| 195 | 196 | .26 | .01 | .08 | .07 | .03 | " | | |
| 196 | 197 | .10 | .01 | .13 | .09 | .02 | " | | |
| 197 | 198 | .22 | .01 | .06 | .06 | .06 | 4 | 10 | |
| 198 | 228 | No samples (?) | | | | | | | |
| 228 | 229 | .10 | .01 | .08 | .08 | .03 | <.01% | | |

764062



| Footage From | To | %Sn | %Cu | Ag oz/t | %Pb | %Zn | Sb* ppm | As ppm | %S |
|---|---|---|---|---|---|---|---|---|---|
| 229 | 230 | .16 | .03 | .08 | .05 | .13 | <.01% | | |
| 230 | 231 | .18 | .01 | .06 | .01 | .02 | " | | |
| 231 | 232 | .10 | .01 | .04 | .02 | .02 | " | | |
| 232 | 233 | .22 | .01 | .03 | .04 | .01 | 4 | <5 | |
| 233 | 234 | .24 | .01 | .10 | .05 | .03 | <.01% | | |
| 234 | 235 | .18 | .01 | .06 | .05 | .04 | " | | |
| 235 | 236 | .59 | .01 | .03 | .06 | .05 | " | | |
| 236 | 237 | .44 | .01 | .03 | .06 | .02 | " | | |
| 237 | 238 | .46 | .01 | .05 | .08 | .02 | 2 | <5 | |
| 238 | 239 | .60 | .01 | .04 | .05 | .03 | <.01% | | |
| 239 | 240 | 1.00 | .01 | .05 | .14 | .03 | " | | |
| 240 | 241 | .80 | .01 | .05 | .08 | .03 | " | | |
| 241 | 242 | .89 | .01 | .04 | .08 | .02 | " | | |
| 242 | 243 | 1.87 | .01 | .05 | .05 | .02 | 4 | 5 | |
| 243 | 244 | 3.20 | .01 | .05 | .07 | .10 | <.01% | | |
| 244 | 245 | 2.12 | .01 | .05 | .09 | .60 | " | | |
| 245 | 246 | 1.62 | .01 | .01 | .05 | .41 | " | | |
| 246 | 247 | 1.60 | .01 | .03 | .06 | .04 | " | | |
| 247 | 248 | 1.00 | .01 | .03 | .06 | .04 | 2 | <5 | |
| 248 | 249 | 1.30 | .01 | .03 | .08 | .03 | <.01% | | |
| 249 | 250 | 3.10 | .01 | .05 | .05 | .10 | " | | |
| 250 | 251 | 2.13 | .01 | .07 | .05 | .04 | " | | |
| 251 | 252 | 4.20 | .01 | .05 | .04 | .12 | " | | |
| 252 | 253 | 3.60 | .01 | .06 | .05 | .12 | " | | |
| 253 | 254 | 3.80 | .01 | .05 | .03 | .13 | 2 | 20 | |
| 254 | 255 | 1.30 | .01 | .03 | .03 | .02 | <.01% | | |
| 255 | 256 | 1.40 | .01 | .03 | .01 | .03 | " | | |
| 256 | 257 | 2.70 | .01 | .04 | .03 | .04 | " | | |
| 257 | 258 | 2.75 | .01 | .05 | .04 | .03 | 4 | 40 | |
| 258 | 259 | 2.40 | .01 | .12 | .03 | .05 | <.01% | | |
| 259 | 260 | 2.00 | .01 | .07 | .04 | .03 | " | | |
| 260 | 261 | 1.20 | .01 | .13 | .07 | .04 | " | | |
| 261 | 262 | 2.68 | .01 | .06 | .01 | .04 | | | 7.9 |
| 262 | 263 | 2.40 | .01 | .07 | .03 | .01 | 2 | 30 | |
| 263 | 264 | 2.71 | .01 | .07 | .01 | .03 | <.01% | | |
| 264 | 265 | 1.49 | .01 | .08 | .01 | .03 | " | | |
| 265 | 266 | 1.20 | .01 | .13 | .12 | .03 | " | | |
| 266 | 267 | 3.26 | .01 | .07 | .01 | .02 | " | | |
| 267 | 268 | 3.11 | <.01 | .06 | .01 | .02 | 2 | 15 | |

| Footage From | To | %Sn | %Cu | Ag oz/t | %Pb | %Zn | Sb* ppm | As ppm | %S |
|---|---|---|---|---|---|---|---|---|---|
| 268 | 269 | 3.60 | .01 | .07 | .01 | .03 | <.01% | | |
| 269 | 270 | 3.62 | .01 | .08 | .01 | .03 | " | | |
| 270 | 271 | 2.66 | .01 | .08 | .01 | .03 | " | | |
| 271 | 272 | 3.55 | .01 | .06 | .01 | .02 | " | | |
| 272 | 273 | .05 | .01 | .04 | .01 | .05 | 2 | <5 | |
| 273 | 274 | .03 | .01 | .04 | .01 | .02 | <.01% | | |
| 274 | 275 | .08 | .01 | .04 | .01 | .02 | " | | 1.9 |

*ppm unless otherwise stated

# Drill Hole Record

Comino

72-865

062

764064

| | | | |
|---|---|---|---|
| Property QUEEN HILL | District Zeehan, Tasmania | Hole No. G-5 (319'6") | |
| Commenced | Location | Tests at | Hor. Comp. |
| Completed | Core Size | Corr. Dip 72° | Vert. Comp. |
| Co-ordinates | | True Brg. 274°M | Logged by |
| Objective | | % Recov. | Date |

Claim | T. Brg. | Collar Dip | Elev. | Length

| Footage From | To | Description | Sample No. | Length | Analysis |
|---|---|---|---|---|---|
| 0 | 29 | Interbedded grey siltstones and pale grey quartzites, beds ½-3" thick; dip 40-50°. Cleavage dip at 80° opposite direction to bedding. $FeS_2$ specks on 35° joint plane at 26'. Core as ½" pieces to 6" lengths. | | | |
| 29 | 51 | Interbedded, grey to dk grey siltstones, and pale grey quartzites; beds 1/16-3" thick; dip at 30-70° due to folding and minor faulting. Quartzite beds frequently displaced 1/16-¼" by microfaulting. Occasional irregular qtz veins. Core often v broken due to jointing and minor faulting eg at 46'6" for 3". | | | |
| 51 | 97 | Interbedded grey to dk grey siltstones, shales and pale grey quartzites; quartzites decrease in abundance downwards. Beds 1/16-3" thick, dip at 45-75°. Rare irreg. qtz veins. Core broken in places due to jointing. Core vuggy from 68'6"-69'6" with $FeS_2$ specks and blebs disseminated. $FeS_2$ specks on joints and in vugs from 71'6"-72'6". ½" wide $FeS_2$ bleb at 76'6". Scattered 1/16-1/8" $FeS_2$ and siderite veins 94'6" and 97'. | | | |
| 97 | 131 | Grey to dk grey-black siltstones and shales (often micaceous) with minor pale grey quartzite bands. Rare irreg. qtz veins; quartzite beds are often brecciated between 117 and 131'; Bedding dips at 60°. ½" $FeS_2$ bleb at 130'. Bedding and cleavage appear to be coincident. | | | |
| 131 | 148 | Interbedded dark grey shales and quartzite beds 1/16-¼" thick, dip at 30° to 137' then 3" puggy fault zone, then dip at 60° to 146'. | | | |
| 148 | 158 6 | Brecciated dk grey slates and pale grey quartzites, $FeS_2$ specks throughout, also occasional veins to ¼" thick. Faulted zone. | | | |
| 158 6 | 170 6 | Dk grey siltstones (often micaceous) with minor pale grey quartzite bands 1/16-1" | | | |

# Drill Record

764065

| Property | QUEEN HILL | District | | Hole No. | G-5 (cont) |
|---|---|---|---|---|---|
| Commenced | | Location | | Tests at | Hor. Comp. |
| Completed | | Core Size | | Corr. Dip | Vert. Comp. |
| Co-ordinates | | | | True Brg. | Logged by |
| Objective | | | | % Recov. | Date |

| Footage From | To | Description | Sample No. | Length | Claim | T. Brg. | Collar Dip | Elev. | Length |
|---|---|---|---|---|---|---|---|---|---|
| | | low grade metamorphic alteration. Irreg. $FeS_2$ and siderite veins 1/16-¼" thick. ¼" | | | | | | | |
| | | $FeS_2$ and sphalerite vein at 161'. The $FeS_2$ veins have been crossed by qtz veins in | | | | | | | |
| | | places. | | | | | | | |
| 170 6 | 185 | Black slate and grey quartzite, brecciated and sheared $FeS_2$ specks throughout. $FeS_2$ | | | | | | | |
| | | and sphalerite veining at 171' for 2" and at 177' for 1". | | | Sn% | Cu% | Ag oz/t | Pb% | Zn% |
| 185 | 194 | Quartz-pyrite-galena lode. Galena dominant from 188'6"-190' and from 191'6"-193'; | 186-197 | 11' | Snt 1.38 | 0.62 | 7.81 | 7.95 | 0.5 |
| | | fine grained, specular. Banding in lode at 190.' dips at 50°. Post lode emplacement | " | " | Snc 1.14 | | | | |
| | | shearing evident at 185'. | 189-193 | 4' | Snt 3.67 | 1.62 | 19.35 | 18.18 | 0.9 |
| 194 | 200 6 | Brecciated, black siltstone and graphitic slate criss-crossed by abundant irregular | " | " | Snc 2.05 | | | | |
| | | qtz veins. Qtz-pyrite lode material dissem throughout to 197'. $FeS_2$ as specks and | | | | | | | |
| | | blebs from 197-200'6". Faulted zones. | | | | | | | |
| 200 6 | 206 | Cream-pale grey spilitic breccia, moderately weathered; very broken from 202-206' with | | | | | | | |
| | | soft, puggy clay seams up to 3" thick (some clay washed out during drilling). | | | | | | | |
| 206 | 209 6 | Qtz-pyrite lode with included black, flinty aletered siltstone; banding in lode at 50° | 205-210 | 5' | 0.58 | 0.01 | 1.29 | 3.20 | 1.0 |
| 209 6 | 212 | Pale cream-brown spilite with diesem $FeS_2$ blebs and veins and quartz veins. | | | | | | | |
| 212 | 237 6 | Pale grey-cream spilite, occasional irreg qtz veins and $FeS_2$ veins up to ¼" thick | | | | | | | |
| | | ($FeS_2$ veins dip at 50° generally). Sporadic patches with $FeS_2$ specks. | | | | | | | |
| 237 6 | 240 | Galena-siderite lode. The galena is coarsely crystalline (cubic); some qtz present; | 236-240 | 4' | 0.12 | 0.01 | 36.78 | 28.43 | 3.5 |
| | " | also specks of sphalerite. | 236-241 | 5' | 0.11 | 0.01 | 29.46 | 22.78 | 2.96 |
| 240 | 319 6 | Grey spilite, occasional qtz veins 1/16-⅛" thick. Rare $FeS_2$ blebs as veins with | | | | | | | |
| | | siderite. | | | | | | | |

INGTON PRINT

064

764066

QUEEN HILL — DIAMOND DRILL HOLE G-5

| Footage From | To | %Sn | %Cu | Ag oz/t | %Pb | %Zn | %Sb | %S |
|---|---|---|---|---|---|---|---|---|
| 0 | 185 | No samples (?) | | | | | | |
| 185 | 186 | .04 | .01 | .23 | .38 | .01 | <.01 | 11.7 |
| 186 | 187 | .47. | .05 | .72 | .40 | .05 | " | |
| 187 | 188 | .19 | .03 | .39 | .37 | .03 | " | |
| 188 | 189 | .95 | .28 | 6.10 | 11.6 | 1.92 | " | |
| 189 | 190 | 2.50 | .57 | 18.0 | 27.8 | 3.30 | " | |
| 190 | 191 | 8.30 | 4.24 | 26.7 | 3.25 | .31 | " | |
| 191 | 192 | .75 | .37 | 6.70 | 5.70 | .03 | " | |
| 192 | 193 | 3.15 | 1.30 | 26.0 | 36.0 | .33 | " | |
| 193 | 194 | .38 | .01 | .89 | 1.63 | .01 | " | |
| 194 | 195 | | | | | | | |
| 195 | 196 | 1.63 | <.01 | .19 | .39 | .02 | " | |
| 196 | 197 | 1.10 | <.01 | .25 | .41 | .02 | " | |
| 197 | 198 | .01 | .01 | .27 | .01 | .01 | " | 2.3 |
| 198 | 199 | .05 | .01 | .05 | .01 | .01 | " | |
| 199 | 200 | .06 | .01 | .05 | .02 | .02 | " | |
| 200 | 201 | .06 | .01 | .05 | .01 | .03 | " | |
| 201 | 202 | .05 | .01 | .05 | .15 | .04 | " | |
| 202 | 203 | .01 | .01 | .05 | .10 | .03 | " | |
| 203 | 204 | .08 | .01 | .05 | .22 | .16 | " | |
| 204 | 205 | .03 | .01 | .05 | .17 | .33 | " | |
| 205 | 206 | .18 | .01 | 3.25 | 10.6 | 2.70 | " | |
| 206 | 207 | .55 | .01 | 1.23 | 2.72 | .70 | " | |
| 207 | 208 | .27 | .01 | .85 | .29 | .11 | " | 10.1 |
| 208 | 209 | .08 | .01 | .50 | .60 | .25 | " | |
| 209 | 210 | 1.83 | <.01 | .65 | 1.80 | 1.61 | " | |
| 210 | 211 | .02 | .01 | .02 | .06 | .07 | " | |
| | 236 | No samples (?) | | | | | | |
| 236 | 237 | .15 | <.01 | .55 | .65 | 1.46 | " | |
| 237 | 238 | .10 | .14 | 57.7 | 40.6 | 3.30 | " | |
| 238 | 239 | .16 | .08 | 54.0 | 40.0 | 4.65 | " | |
| 239 | 240 | .10 | .03 | 34.9 | 32.5 | 4.75 | " | |
| 240 | 241 | .05 | <.01 | .19 | .18 | .66 | " | |

# Hole Record

764067

72-865

| | | | |
|---|---|---|---|
| Property QUEEN HILL | District Zeehan, Tasmania | Hole No. G-6 (381'6") | |
| Commenced | Location | Tests at | Hor. Comp. |
| Completed | Core Size | Corr. Dip 85° | Vert. Comp. |
| Co-ordinates | | True Brg. 258°M | Logged by |
| Objective | | % Recov. | Date |

Claim | T. Brg. | Collar Dip | Elev. | Length 381'6"

| Footage From | To | Description | Sample No. | Length | Analysis |
|---|---|---|---|---|---|
| 0 | 27 | Grey to dk grey siltstones, shales and minor pale grey quartzites. Beds dip 65° @ 22'. Occasional irreg 1/16-1/8" thicj qtz veins. Cleavage appears coincident with bedding | | | |
| 27 | 68 6 | Interbedded grey to dk grey shales and pale grey quartzites. Beds < 1/16-1½" thick, dip very variable (due to folding and minor faulting) 10÷70°. Quartzite beds often broken and displaced, due in part, probably, to past diagenetic flow movements. 1½" vuggy quartz vein at 62'6". | | | |
| 68 6 | 71 6 | Dark grey shales and interbedded pale grey quartzites; beds dip at 15°. | | | |
| 71 6 | 89 6 | Dark grey slates, minor pale grey quartzite bands; strongly cleaved; cleavage and bedding coincident; dip at 45°. Rare $FeS_2$ blebs. | | | |
| 89 6 | 96 | Black graphitic slate, quartz blebs and stringers; occasional $FeS_2$ blebs. $FeS_2$ and siderite; veining at 95' for 4". | | | |
| 96 | 153 | Grey to dk grey shales, slates and interbedded pale grey quartzites. Beds dip generally between 45-55°. Many of the slaty beds are micaceous; cleavage and bedding appear to be coincident. Occasional irreg qtz veins; rare $FeS_2$ blebs and specks. 3" soft clay on fault at 129'3". Beds often contorted due to folding and minor faulting. | | | |
| 153 | 163 | Dk grey-black slates, minor pale grey quartzites. Strong small scale folding present. | | | |
| 163 | 165 | Qtz-sphalerite-pyrite lode. Minor included black slates. | | | |
| 165 | 209 | Dk grey-black slates, shales and minor pale grey quartzites. The slates are graphitic in places, strong small scale folding is present; many of the quartzite bands are brecciated due to folding and micro-faulting. Irreg. qtz veins abundant 173-181. $FeS_2$ blebs and 1/16-1/8" veins occur sporadically. Bedding dip of 60° average. | | | |

[redacted]

# Hole Record

COMINCO

Property 066 764068 District Hole No. G-6 (cont.)

| | | | |
|---|---|---|---|
| Commenced | Location | Tests at | Hor. Comp. |
| Completed | Core Size | Corr. Dip | Vert. Comp. |
| Co-ordinates | | True Brg. | Logged by |
| Objective | | % Recov. | Date |

| Footage From | Footage To | Description | Sample No. | Length | Claim | T. Brg. | Collar Dip | Elev. | Length |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Analysis Sn% | Cu% | Ag oz/t | Pb% | Zn% |
| 209 | 219 | Grey to dk grey slates and pale grey quartzites, strongly cleaved and sheared. Slates | | | | | | | |
| | | becoming very graphitic at 218'3". Occasional $FeS_2$ veins 1/16-½" thick from 216' | | | | | | | |
| | | downwards, $FeS_2$ abundant as veins blebs and disseminated. | 221-223 | 2' | 4.05 | 1.66 | 13.75 | 4.17 | 4.48 |
| 219 | 225 6 | Quartz-pyrite lode with included black slate. 4" galena at 221'. | 219-224 | 5' | 1.15 | ? | 5.95 | 2.16 | 2.33 |
| 225 6 | 237 | Qtz pyrite-galena lode with included spilite. Some siderite present, also minor | 228-235 | 7' | 0.41 | 0.04 | 6.43 | 2.54 | 1.19 |
| | | chalcopyrite. Galena abundant 229-234, both coarse, cubic and fine grainedspecular. | 235-239 | 4' | 1.04 | 0.01 | 0.26 | | |
| 237 | 262 | Grey spilite, both brecciated and amygdaloidal; $FeS_2$ occurs sporadically as 1/16-½" | | | | | | | |
| | | veins, blebs and segregations. Occasional irreg veins 1/16-¼" thick. | | | | | | | |
| 262 | 280 | Qtz-pyrite-pyrrhotite lode. Some included spilite. Pyrrhotite massive from 271'3-275 | 265-274 | 9' | 1.26 | 0.04 | 0.15 | 0.07 | 0.05 |
| 280 | 319 | Grey spilite with sporadic $FeS_2$ patches and veins and qtz veins. $FeS_2$ veins 1/16-¾". | 265-278 | 13' | 0.99 | 0.02 | 0.19 | | |
| 319 | 381 6 | Grey spilite, occasional quartz veins 1/16-1" thick | | | | | | | |
| 319 | 381 6 | Grey spilite, occasional quartz veins 1/16-1" thick. | | | | | | | |
| | 381 6 | E N D O F H O L E | | | | | | | |

764069

QUEEN HILL — DIAMOND DRILL HOLE G-6

| Footage From | Footage To | %Sn | %Cu | Ag oz/t | %Pb | %Zn | %Sb | %S |
|---|---|---|---|---|---|---|---|---|
| .0 | 162 | No samples (?) | | | | | | |
| 162 | 163 | .05 | .01 | .30 | 2.20 | 1.30 | <.01 | |
| 163 | 164 | .04 | .03 | .27 | 3.80 | 16.6 | " | |
| 164 | 165 | .03 | .02 | .19 | 1.78 | 3.60 | " | |
| 165 | 166 | .26 | .02 | .55 | 1.60 | .21 | " | |
| 166 | 167 | .07 | .01 | 1.25 | .18 | .14 | <.01 | |
| 216 | 217 | .04 | <.01 | .24 | .01 | .01 | <.01 | 3.8 |
| 217 | 218 | .05 | <.01 | .15 | .05 | .01 | <.01 | |
| 218 | 219 | .16 | <.01 | .20 | .06 | .01 | " | |
| 219 | 220 | .61 | .03 | .59 | .34 | .20 | " | |
| 220 | 221 | .38 | .07 | 1.38 | 2.02 | 2.45 | " | |
| 221 | 222 | 4.50 | 1.73 | 16.2 | 7.60 | 8.83 | " | |
| 222 | 223 | 3.60 | 1.60 | 11.3 | .75 | .13 | " | |
| 223 | 224 | .10 | .01 | .29 | .09 | .05 | " | |
| 224 | 225 | .15 | .03 | 1.25 | .32 | .03 | " | |
| 225 | 226 | .13 | .01 | .75 | .46 | .03 | " | |
| 226 | 227 | .09 | .01 | .55 | .26 | .02 | " | |
| 227 | 228 | .08 | .01 | .44 | .35 | .01 | " | |
| 228 | 229 | .14 | .02 | 8.50 | 17.0 | .22 | " | |
| 229 | 230 | .28 | .03 | 3.10 | 6.00 | 1,98 | " | |
| 230 | 231 | .98 | .04 | 12.9 | 21.6 | .08 | " | |
| 231 | 232 | ,40 | .11 | 7.00 | 15.4 | 1.06 | " | |
| 232 | 233 | .35 | .08 | 5.00 | 13.0 | 2.40 | " | |
| 233 | 234 | .10 | .03 | 6.60 | 8.70 | 2.55 | " | |
| 234 | 235 | .60 | <.01 | 1.96 | 6.10 | .05 | " | |
| 235 | 236 | 2.16 | <.01 | .20 | .03 | .01 | " | |
| 236 | 237 | 1.06 | <.01 | .18 | .02 | .01 | " | |
| 237 | 238 | .28 | .35 | .02 | .02 | .12 | " | |
| 238 | 239 | .66 | .01 | .31 | .46 | .77 | " | |
| 239 | 261 | No samples (?) | | | | | | |
| 261 | 262 | .05 | <.01 | .08 | .03 | .01 | " | |
| 262 | 263 | .15 | <.01 | .07 | .04 | .01 | " | 4.1 |
| 263 | 264 | .08 | .01 | .13 | .08 | .02 | " | |
| 264 | 265 | .05 | .01 | .08 | .05 | .01 | " | |
| 265 | 266 | .87 | .04 | .10 | .09 | .01 | " | |
| 266 | 267 | .76 | .01 | .19 | .05 | .01 | " | |
| 267 | 268 | .91 | .01 | .10 | .04 | .01 | " | |
| 268 | 269 | .36 | .01 | .11 | .04 | .01 | " | |
| 269 | 270 | .46 | .01 | .11 | .05 | .01 | " | |
| 270 | 271 | 1.12 | .01 | .08 | .05 | .01 | " | |

| Footage From | To | %Sn | %Cu | Ag oz/t | %Pb | %Zn | %Sb | %S |
|---|---|---|---|---|---|---|---|---|
| 271 | 272 | 3.30 | .01 | .39 | .05 | .02 | <.01 | |
| 272 | 273 | 2.35 | .02 | .10 | .07 | .03 | " | |
| 273 | 274 | 1.25 | .02 | .22 | .20 | .03 | " | |
| 274 | 275 | .20 | .03 | .32 | .21 | .04 | " | |
| 275 | 276 | .18 | .03 | .30 | .19 | .04 | " | |
| 276 | 277 | .22 | .03 | .29 | .18 | .07 | " | |
| 277 | 278 | .95 | .03 | .25 | .19 | .06 | " | |
| 278 | 279 | .39 | .01 | .11 | .04 | .03 | " | |
| 279 | 280 | .04 | .01 | .05 | .03 | .03 | " | |
| 280 | 281 | .11 | <.01 | .07 | .03 | .03 | " | 2.4 |

# Drill Hole Record

063 764071

72-865

| | | | |
|---|---|---|---|
| Property QUEEN HILL | District International | Hole No. G-7 (400') | |
| Commenced | Location Zeehan, Tasmania | Tests at | Hor. Comp. |
| Completed | Core Size | Corr. Dip 61° | Vert. Comp. |
| Co-ordinates | | True Brg. 285°M | Logged by |
| Objective | | % Recov. | Date |

Claim | T. Brg. | Collar Dip | Elev. | Length G7 - 1

| Footage From | To | Description | Sample No. | Length | Analysis Sn% | Cu% | Ag oz/t | Pb% | Zn% |
|---|---|---|---|---|---|---|---|---|---|
| 0 | 12 3 | Filling and completely weathered grey-black shale. | | | | | | | |
| 12 3 | 38 6 | Grey-black shale interbedded with pale grey quartzite bands 1/16-2" thick. Bedding at 35-60°. Some contortion due to folding and minor faulting. ½" and 1" siderite-$FeS_2$-galena veins at 35'6". $FeS_2$ specks in quartzite 18-20'. | | | | | | | |
| 38 6 | 40.9 | Black shale with vuggs once filled with $FeS_2$ but now empty. Bedding dips at 28°. ¾" siderite vein at 38'6". | | | | | | | |
| 40 9 | 43 6 | Interbedded black shale and grey quartzite bands. Quartzite bands brecciated due to faulting. Bedding dips at 70°. Scattered $FeS_2$ blebs. | | | | | | | |
| 43 6 | 45 9 | Interbedded grey quartzites and black shales. Minor irregular quartz veins. | | | | | | | |
| 45 9 | 48 | Black shale with fragments of brecciated quartzite 1/16-¾" wide - faulted zone; major lineation dips at 35°. $FeS_2$ blebs scattered throughout. ¼" siderite-$FeS_2$-galena vein at 46'9", dips at 60° | | | | | | | |
| 48 | 87 | Dk grey to black shales (graphitic 64-68') interbedded with pale grey quartzites. Beds contorted throughout, due mainly to folding, partly to faulting, Irreg qtz veins abundant 56-65'. Bedding dips at 30° at 68'. 1" thick $FeS_2$ and siderite vein, dip 40° (oblique to bedding) at 52'. ½" quartz-siderite-$FeS_2$ vein at 52'6", dip 30°, with slickensides on dip plane. ¾" quartz-$FeS_2$ vein, dip 35° at 78'. 6' of core lost 78-88 (appears to be between 81 and 87). | | | | | | | |
| 87 | 90.6 | Black shale and brecciated quartzite dissem with $FeS_2$ as blebs veins and specks. Faulted zone. | | | | | | | |
| 90 6 | 91 3 | Qtz-$FeS_2$ lode with thin veins (1/16-1/8) and specks of galena. | 90-94 | 4' | Sn 0.57 | 0.21 | 0.89 | 0.85 | 0.06 |

SKINGTON PRINT

# ...le Record

764072

...y 070'

District

Hole No. G-7 (cont.)

...mmenced

Location

Tests at

Hor. Comp.

Completed

Core Size

Corr. Dip

Vert. Comp.

Co-ordinates

True Brg.

Logged by

Objective

% Recov.

Date

Claim | T. Brg. | Collar Dip | Elev. | Length G7-2

| Footage From | Footage To | Description | Sample No. | Length | Analysis | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Sn% | Cu% | Ag oz/t | Pb% | Zn% |
| 93 6 | 96 6 | Dk grey shales and grey quartzites contorted; occasional $FeS_2$ veins 1/16-¼" thick. | | | | | | | |
| 96 6 | 107 | Interbedded grey shales and pale grey quartzites; bedding dips between 75° and vertical. 1/8-¼" thick $FeS_2$ vein; dips 85° at 104'. | | | | | | | |
| 107 | 110 6 | Black shales with abundant $FeS_2$ as veins and disseminated. | 109-110 | 1' | 0.34 | 0.06 | 2.20 | 0.40 | 0.02 |
| 110 6 | 125 | Highly contorted grey shale and brecciated quartzite with $FeS_2$ dissem as blebs, specks and occasional veins. | | | | | | | |
| 125 | 131 6 | Grey shales and interbedded pale grey quartzites; bedding dips 40-70°. $FeS_2$ as occasional irregular veins 1/16-1/8" thick. ½" $FeS_2$ and siderite vein, dip 40° at 131. | | | | | | | |
| 131 6 | 151 | Pale grey quartzite; bedding dips at 55-60°; occasional $FeS_2$ and quartz blebs & veins | | | | | | | |
| 151 | 168 | Pale grey quartzite, minor dk grey shale bands; bedding dips 55-60°. Rare $FeS_2$ specks faulted at 154'6" for 6'. Rare quartz veins. | | | | | | | |
| 168 | 177 | Interbedded black shale and pale grey quartzites; quartzite bands often brecciated. Bedding dips at 30°. Occasional irregular quartz veins. | | | | | | | |
| 177 | 179 | Quartz-$FeS_2$-siderite lode. | | | | | | | |
| 179 l | 208 | Dk grey shales and interbedded pale grey quartzites; bedding dips 35-45°. Beds often contorted due mainly to folding. 2" quartz-$FeS_2$ vein, dip 60° at 200'. | | | | | | | |
| 208 | 258 | Dk grey-black shale with abundant brecciated quartzite indicating faulting throughout 1" $FeS_2$ vein, dip 85° at 209'. | | | | | | | |
| 258 | 268 9 | Qtz-$FeS_2$-galena lode; $FeS_2$ dissem and in bands up to 2" thick. Galena abundant 258'6"-260'. Fine grained banded with $FeS_2$. Some siderite veining. | 259-261 | 2' | Sn t 0.68 Sna 0.59 | 0.09 | 6.90 | 10.92 | 0.07 |
| 268 9 | 279 | Grey baked shale and fg quartzite bands. 1" $FeS_2$ vein at 270'6". $FeS_2$ specks | 268-269 | 1' | 0.78 Sn t | 0.01 | 0.16 | 0.10 | 0.02 |

...INGTON PRINT

# Hole Record

764073

| | | | |
|---|---|---|---|
| Property 071 | District | Hole No. G-7 (cont) | |
| Commenced | Location | Tests at | Hor. Comp. |
| Completed | Core Size | Corr. Dip | Vert. Comp. |
| Co-ordinates | | True Brg. | Logged by |
| Objective | | % Recov. | Date |

Claim | T. Brg. | Collar Dip | Elev. | Length 1383 57

| Footage From | To | Description | Sample No. | Length | Analysis |
|---|---|---|---|---|---|
| 279 | 300 | Interbedded grey-black shale and fg quartzite bands; bedding dips at 55° at 288'. 3" faulted zone at 280'6". Irreg. qtz veins 1/16-½" thick present 282-300'. | | | |
| 300 | 310 | Dk grey-black pyritic slate; some irreg qtz veins. Bedding dip varies 75-80°. $FeS_2$ as blebs and veins 1/16-1/8" thick. | | | |
| 310 | 329 | Dk grey black interbedded shales and quarzites; bedding dip varies 55-65°. Occasional irregular qtz veins and $FeS_2$ blebs. 3" qtz-siderite-$FeS_2$ lode. | | | |
| 329 | 335 | Black graphitic shale; strongly faulted with poor core recovery | | | |
| 335 | 368 6 | Black shale, graphitic in places, with interbedded quartzite bands, especially from 335-344. Bedding dips at between 80° and vertical. $FeS_2$ specks in shale at 348', 361' | | | |
| 368 6 | 400 | Grey spilitic tuff, moderately to slightly weathered; amygdaloidal in parts; bedding dip varies between 78° and vertical. Occasional irregular quartz veins 1/16-1/8" thick. | | | |
| | 400 | E N D O F H O L E | | | |

764074

QUEEN HILL — DIAMOND DRILL HOLE G-7

| Footage From | To | %Sn | %Cu | Ag oz/t | %Pb | %Zn | %Sb |
|---|---|---|---|---|---|---|---|
| 0 | 87 | No samples (?) | | | | | |
| 87 | 88 | .08 | .01 | .29 | .08 | .02 | .01 |
| 88 | 89 | .14 | .01 | .09 | .05 | .01 | " |
| 89 | 90 | .01 | .01 | .09 | .02 | .01 | " |
| 90 | 91 | .75 | .45 | 2.28 | 2.50 | .08 | " |
| 91 | 92 | 1.00 | .42 | .98 | .71 | .07 | " |
| 92 | 93 | .03 | .01 | .22 | .06 | .03 | " |
| 93 | 94 | .52 | .29 | .09 | .15 | .05 | " |
| 94 | 95 | .03 | .01 | .10 | .02 | .02 | " |
| 95 | 96 | .04 | <.01 | .22 | .70 | .02 | " |
| 96 | 106 | No samples (?) | | | | | |
| 106 | 107 | .04 | .01 | .14 | .10 | .02 | " |
| 107 | 108 | .05 | .01 | .97 | 2.00 | .02 | " |
| 108 | 109 | .03 | .01 | .17 | .06 | .01 | " |
| 109 | 110 | .34 | .06 | 2.20 | .40 | .02 | " |
| 110 | 111 | .02 | .01 | .13 | .04 | .01 | " |
| 111 | 112 | .03 | <.01 | .09 | .04 | .01 | " |
| 112 | 113 | .11 | .01 | .10 | .01 | .01 | " |
| 113 | 114 | .10 | <.01 | .07 | .01 | .01 | " |
| 114 | 115 | .01 | .01 | .35 | .15 | .01 | " |
| 115 | 116 | .07 | .03 | .46 | .30 | .03 | " |
| 116 | 117 | .04 | .03 | .16 | .18 | .01 | " |
| 117 | 256 | No samples (?) | | | | | |
| 256 | 257 | .02 | .01 | .07 | .01 | .01 | " |
| 257 | 258 | .03 | .01 | .14 | .05 | .01 | " |
| 258 | 259 | .05 | .01 | .08 | .20 | .03 | " |
| 259 | 260 | .97 | .16 | 13.7 | 21.1 | .08 | " |
| 260 | 261 | .39 | .02 | .11 | .75 | .07 | " |
| 261 | 262 | .04 | .01 | .26 | 1.38 | .02 | " |
| 262 | 263 | .03 | .05 | .14 | 2.90 | .05 | " |
| 263 | 264 | .02 | .04 | .30 | 4.30 | .15 | " |

| Footage From | To | %Sn | %Cu | Ag oz/t | %Pb | %Zn | %Sb |
|---|---|---|---|---|---|---|---|
| 264 | 265 | .21 | .04 | .55 | 3.00 | .43 | <.01 |
| 265 | 266 | .07 | .02 | .26 | .09 | .07 | <.01 |
| 266 | 267 | .07 | .01 | .18 | .02 | .03 | " |
| 267 | 268 | 1.07 | .01 | .15 | .09 | .02 | " |
| 268 | 269 | .52 | .01 | .18 | .11 | .03 | " |
| 269 | 270 | .03 | .01 | .13 | .08 | .02 | " |
| 270 | 271 | .04 | .01 | .16 | .10 | .02 | " |
| 271 | 272 | .34 | .01 | .12 | .15 | .02 | " |
| 272 | 273 | .03 | .01 | .11 | .05 | .02 | " |
| 273 | 299 | No samples (?) | | | | | |
| 299 | 300 | .01 | .01 | .09 | .15 | .05 | " |
| 300 | 301 | .04 | .02 | .23 | .14 | .03 | " |
| 301 | 302 | .02 | .01 | .10 | .07 | .02 | " |
| 302 | 303 | .02 | .01 | .05 | .16 | .02 | " |
| 303 | 304 | .02 | .01 | .05 | .08 | .01 | " |
| 304 | 305 | .02 | .01 | .09 | .03 | .01 | " |
| 305 | 306 l | .01 | .01 | .05 | .02 | .02 | " |
| 306 | 307 | .01 | .02 | .06 | .01 | .01 | " |
| 307 | 308 | .01 | .02 | .05 | .07 | .01 | " |
| 308 | 309 | .01 | .01 | .06 | .05 | .01 | " |
| [illegible]9 | 310 | .01 | .02 | .05 | .02 | .01 | " |

074

Property QUEEN HILL 764076 District International Hole No. G-8 (455') 72-865

Commenced — Location Zeehan, Tasmania Tests at — Hor. Comp. —

Completed — Core Size — Corr. Dip 86½° — Vert. Comp. —

Co-ordinates — — True Brg. 285°M — Logged by —

Objective — — % Recov. — Date —

| Claim | T. Brg. | Collar Dip | Elev. | Length |
|---|---|---|---|---|
| | | | | |

| Footage From | Footage To | Description | Sample No. | Length | Analysis |
|---|---|---|---|---|---|
| 0 | 18 | Dk grey-black shales, pale grey quartzites and shales with brecciated quartzite fragments. Bedding dip varies 65-75°. $FeS_2$ specks in quartzite at 15'. | | | |
| 18 | 37 | Black graphitic shales, minor pale grey quartzite bands 1/16-¼" thick 28'6"-37'. Bedding dips at 85°. Occasional quartz and siderite veins 1/16-1/8" thick and $FeS_2$ blebs. Qtz veins abundant 29-30'6". Beds tightly folded. | | | |
| 37 | 47 6 | Grey shales (graphitic in part) interbedded with 1/16-½" thick pale grey quartzite bands which are often brecciated in a shale matrix. Bedding dip 55-70°. Occasional irreg. qtz veins. Rare $FeS_2$ blebs. | | | |
| 47 6 | 69 | Grey to dark grey-black shales with minor interbedded quartzite bands which are often brecciated in a shale matrix. Shale is very graphitic 55-57'. Bedding dip 60-85°. Occasional irreg. qtz veins 1/16-¼" thick. Rare $FeS_2$ blebs. | | | |
| 69 | 69 4 | Galena-$FeS_2$-siderite lode as veins and stringers in black slate. Galena as 1" vein. Banding dip at 43°. | | | |
| 69 4 | 86 | Interbedded dk grey shales and grey quartzites; many of the quartzite bands are brecciated in a shale matrix. Irreg qtz veins 1/16-½" fairly common. Rare $FeS_2$ blebs Bedding dip 75-85°. | | | |
| 86 | 97 | Grey quartzites; minor dk grey shales. Beds dip 55-75°. Some quartzite bands slightly brecciated. Occasional irreg qtz veins. Beds strongly folded; quartzites are in places micaceous. Poor core recovery 92'6"-97'6". | | | |
| 97 | 100 | Dk grey shale-quartzite breccia; abundant irreg $FeS_2$ veins 1/16-½" thick | | | |
| 100 | 114 6 | Dk grey shale with abund brecciated quartzite fragments. Bedding dips 70-85°. Occasional irreg qtz veins; also occasional $FeS_2$ veins 1/16-1/8" thick and blebs | | | |

COCKINGTON PRINT

075

Property 764077 District Hole No. G-8 (cont)

| | | | |
|---|---|---|---|
| Commenced | Location | Tests at | Hor. Comp. |
| Completed | Core Size | Corr. Dip | Vert. Comp. |
| Co-ordinates | | True Brg. | Logged by |
| Objective | | % Recov. | Date |

Claim | T. Brg. | Collar Dip | Elev. | Length

| Footage From | To | Description | Sample No. | Length | Analysis Sn% | Cu% | Ag oz/t | Pb% | Zn% |
|---|---|---|---|---|---|---|---|---|---|
| 114 6 | 120 | Pale grey micaceous quartzite with minor grey shale bands. Occasional $FeS_2$ & qtz veins | | | | | | | |
| 120 | 121 3 | Dk grey shale with abund brecciated quartzite fragments; bedding dips 70°. Abundant | | | | | | | |
| | | irregular $FeS_2$ veins 1/160 1/8" thick. | | | | | | | |
| 121 3 | 124 1 | Qtz-$FeS_2$-stannite lode; banding dips at 58°. ½" stannite band at 123'11½". Minor | | | | | | | |
| | | specks of galena. | | | | | | | |
| 124 1 | 125 9 | Dk grey shale with abund brecciated quartzite fragments. Abund qtz-$FeS_2$ irreg veins | | | | | | | |
| 125 9 | 142 | Dk grey shale with abund brecciated quartzite fragments. Bedding dips 65-80°. $FeS_2$ | | | | | | | |
| | | veins 125'9" and 127' and 131-133; elsewhere rare. | | | | | | | |
| 142 | 169 6 | Grey to dk grey shales with interbedded pale grey qtzite bands. Qtzite bands 1/16-1½" | | | | | | | |
| | | thick; beds strongly folded. Occasional bands of shale-qtzite breccia. Bedding dip | | | | | | | |
| | | 55° at 150'6". $FeS_2$ specks scattered throughout, mainly in qtzite bands. 1' qtz-$FeS_2$ | | | | | | | |
| | | lode at 146'; wall irreg (dip varies 5-70°) thickness of 3½" at 146'6". Qtzite-shale | | | | | | | |
| | | breccia with abund qtz veining, minor siderite and $FeS_2$ from 151'6"-155'6". $FeS_2$ and | | | | | | | |
| | | siderite irreg veins 157-157'6" | | | | | | | |
| 169 6 | 179 | Interbedded dark grey shales and grey qtzites; abund qtz veins (irreg) to 1" thick. | 172-173 | 1' | 0.58 | 0.02 | 0.11 | 0.02 | <0.01 |
| | | Beds dip at 60° at 173'; strongly folded. $FeS_2$ abundant; dissem. throughout; some | | | | | | | |
| | | veins 1/16-¼" thick with siderite; dip at 65° at 175'. | | | | | | | |
| 179 | 184 6 | Qtz-$FeS_2$ lode material; original banding of sediments still visible in places dipping | | | | | | | |
| | | at 70°. Occasional siderite intergrown with qtz. $FeS_2$ dissem and as irreg veins | 176-184 | | 2.01 | 0.01 | 0.43 | 0.06 | 0.01 |
| | | 1/16-¼" across. | | | | | | | |
| 184 6 | 195 6 | Black shale, highly graphitic in places with minor pale grey qtzite bands and blebs. | | 177-179 Missing | | | | | |

OCKINGTON PRINT

U76

| | | | |
|---|---|---|---|
| Property 764078 | District | Hole No. G-8 (cont) | |
| Commenced | Location | Tests at | Hor. Comp. |
| Completed | Core Size | Corr. Dip | Vert. Comp. |
| Co-ordinates | | True Brg. | Logged by |
| Objective | | % Recov. | Date |

| Claim | T. Brg. | Collar Dip | Elev. | Length | |
|---|---|---|---|---|---|
| | | | | | |

| Footage From | To | Description | Sample No. | Length | Analysis |
|---|---|---|---|---|---|
| | | (dip60-90°) with 1/16-1/8" soft pug in places. | | | |
| 195 6 | 212 | Dk grey-black shale interbedded with pale grey qtzite bands 1/16-1" thick. Qtzite bands often slightly brecciated due to folding. Beds dip 70-85°. 1/8" $FeS_2$ vein, dip 70° at 198'6". Irreg siderite veining for 3" at 201'6" and 208'. | | | |
| 212 6 | 216 6 | Dk grey shale with abundant brecciated qtzite fragments. ¼" thick siderite veins, dip 55° at 212' and 212'6" | | | |
| 216 6 | 275 6 | Grey to dk grey shale, interbedded with pale grey qtzite bands 1/16-1½" thick. Qtzite bands often slightly brecciated and drawn out in stringers; some beds with highly brecciated qtzite in shale matrix. Bedding dip 55-75°. Occasional irreg siderite veins 1/16-½"; ¾" qtz-$FeS_2$ vein at 249'6", dip 70°. ¼" $FeS_2$-siderite vein at 235'2", dip 60°. 2" qtz and siderite veining at 220'. | | | |
| 275 6 | 277 6 | Pale grey qtzite, fine-medium grained; slightly micaceous; beds dip at 65° | | | |
| 277 6 | 315 | Grey shales interbedded with pale grey qtzite beds 1/16-1"; bedding dip varies 30-70°. folding evident throughout. Occasional 1/16-¼" siderite veins dip at 55°-65°. Scattered irreg 1/16-¼" qtz veins | | | |
| 315 | 325 | Dk grey shales, minor pale grey qtzite bands 1/16-¼"; beds dip at 75-85°. ½" qtz vein at 321'6"; $FeS_2$ blebs scattered throughout, also present in some qtzite bands as disseminations. | | | |
| 325 | 368 | Grey to dk grey-black shales and interbedded grey qtzite bands with occasional bands of qtzite breccia in a shale matrix. Bedding dip 50-85°. Occasional 1/16-½" qtz and siderite veins dipping 55-60° predominantly. ¾" siderite vein dip 50° at 332'6". ¾" siderite vein dip 70° at 338'. | | | |

COCKINGTON PRINTING

| | | | |
|---|---|---|---|
| District | | Hole No. G-8 (cont) | |
| Commenced | Location | Tests at | Hor. Comp. |
| Completed | Core Size | Corr. Dip | Vert. Comp. |
| Co-ordinates | | True Brg. | Logged by |
| Objective | | % Recov. | Date |

| Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No. G-8 |
|---|---|---|---|---|---|
| | | | | | |

| Footage From | Footage To | Description | Sample No. | Length | Analysis Sn% | Cu% | Ag oz/t | Pb% | Zn% |
|---|---|---|---|---|---|---|---|---|---|
| 368 | 379 | Black shales and slates interbedded with pale grey qtzites; some bands brecciated; bedding dip varies 30-60°. Irreg. 1/16-¼" siderite veins scattered throughout core. $FeS_2$ as irreg veins, some with siderite and qtz from 368-375; fairly common 375-379. | | | | | | | |
| 379 1 | 380 6 | Black slates with abundant irreg 1/8-¼" qtz and siderite veins, bedding dip 50°. | | | | | | | |
| 380 6 | 382 9 | Qtz $FeS_2$, lode material; occasional galena specks, also ½" galena and siderite vein at 382'6". Banding in $FeS_2$ dips at 55°. | | | | | | | |
| 382 9 | 383 6 | Black slate and grey qtzite; bedding dips at 60°; $FeS_2$ as irreg 1/16-¼" veins dissem throughout. | 382-386 | 4' | Snt 0.58<br>Snc 0.51 | 0.08 | 0.52 | 1.04 | 0.07 |
| 383 6 | 385 | Qtz-$FeS_2$ lode material; banding in $FeS_2$ dips at 55°. | | | | | | | |
| 385 | 398 | Black slate and grey qtzite; often brecciated; highly contorted. Abundant irregular qtz and $FeS_2$ veins 1/16-½". | 382-390 | 8' av. | Snt 0.42<br>Snc 0.38 | 0.04 | 0.42 | 0.58 | 0.04 |
| 398 | 409 | Qtz-$FeS_2$ lode material; included black slate common in top 6'. $FeS_2$ as irregular veins 1/16-1" thick | 394-395 | 1' | 0.30 | 0.03 | 0.46 | 0.05 | 0.01 |
| | | | 402-403 | 1' | 0.48 | 0.20 | 1.46 | 0.61 | 0.05 |
| 409 | 433 | Interbedded dk grey-black shales, grey qtzites and brecciated (tuffaceous) beds. Beds dip 30-70° (av 60). Rare irreg 1/16-1/8" qtz veins and sub-vert $FeS_2$ veins. ¾" $FeS_2$ vein dip 45° at 422'4". | | | | | | | |
| 433 | 442 6 | Brecciated qtzite in black shale matrix (tuffaceous) beds dip 75-90°. ¾" qtz vein with $FeS_2$ blebs dip 30° at 439'6". | | | | | | | |
| 442 6 | 447 6 | Grey, fg massive qtzite; occasional shale bands; beds dip 60°. ¼" qtz and $FeS_2$; irregular veining at 442'6". | | | | | | | |
| 447 6 | 455 | Interbedded black shales; grey qtzites; brecciated beds; beds dip 30-60°. Occasional 1/16-1/8" irregular qtz veins. | | | | | | | |

764079

764080

QUEEN HILL — DIAMOND DRILL HOLE No. G-8

| Footage From | To | %Sn | %Cu | Ag oz/t | %Pb | %Zn | %Sb | |
|---|---|---|---|---|---|---|---|---|
| 0 | 99 | No samples (?) | | | | | | |
| 97 | 98 | .05 | .01 | .10 | .03 | .03 | <.01 | |
| 98 | 99 | .05 | .02 | .28 | .02 | .04 | <.01 | |
| 99 | 100 | .08 | .01 | .20 | .01 | .04 | " | |
| 100 | 119 | No samples (?) | | | | | | |
| 119 | 120 | .04 | .01 | .07 | .01 | .03 | " | |
| 120 | 121 | .05 | .02 | .09 | .06 | .03 | " | |
| 121 | 122 | .06 | .01 | .17 | .03 | .03 | " | |
| 122 | 123 | .66 | .12 | 2.11 | .42 | .03 | " | |
| 123 | 124 | 4.05 | 2.20 | 27.8 | 3.63 | .14 | " | |
| 124 | 125 | .06 | .01 | .22 | .03 | .03 | " | |
| 125 | 126 | .05 | <.01 | .17 | .03 | <.01 | " | |
| 126 | 127 | .08 | .01 | .09 | .02 | <.01 | " | |
| 127 | 169 | No samples (?) | | | | | | |
| 169 | 170 | .01 | .01 | .20 | .01 | <.01 | " | |
| 170 | 171 | .10 | .02 | .30 | .05 | <.01 | " | |
| 171 | 172 | .01 | <.01 | .10 | .03 | <.01 | " | |
| 172 | 173 | .58 | .02 | .11 | .02 | <.01 | " | |
| 173 | 174 | .14 | .01 | .06 | .04 | <.01 | " | |
| 174 | 175 | .12 | <.01 | .09 | .02 | .01 | " | |
| 175 | 176 | .13 | <.01 | .13 | .04 | <.01 | " | |
| 176 | 177 | 1.35 | .01 | .31 | .08 | .01 | " | |
| 177 | 178 | | | | | | | |
| 178 | 179 | | | | | | | |
| 179 | 180 | .02 | .01 | 1.49 | .05 | <.01 | " | |
| 180 | 181 | 1.85 | .02 | .46 | .11 | .03 | " | |
| 181 | 182 | 5.00 | .01 | .44 | .09 | .02 | " | |
| 182 | 183 | 3.35 | .02 | .41 | .10 | .02 | " | |
| 183 | 184 | 4.50 | .01 | .34 | .08 | .03 | " | |
| 184 | 185 | .15 | .01 | .26 | .05 | .02 | " | |
| 185 | 186 | .01 | <.01 | .10 | .02 | <.01 | " | |
| 186 | 340 | No samples (?) | | | | | | |

| Footage From | To | %Sn | %Cu | Ag oz/t | %Pb | %Zn | %Sb |
|---|---|---|---|---|---|---|---|
| 340 | 341 | .01 | .01 | .2 | .21 | .13 | <.01 |
| 341 | 342 | .11 | .01 | .2 | .07 | .01 | " |
| 342 | 343 | .65 | .01 | .2 | .35 | .01 | " |
| 343 | 350 | No samples (?) | | | | | |
| 350 | 351 | 1.40 | .01 | .2 | .48 | .01 | " |
| 351 | 368 | No samples (?) | | | | | |
| 368 | 369 | .03 | <.01 | .05 | .02 | <.01 | " |
| 369 | 370 | .01 | .01 | .12 | .01 | <.01 | " |
| 370 | 371 | .01 | .01 | .06 | .04 | <.01 | " |
| 371 | 372 | .01 | .01 | .08 | .03 | <.01 | " |
| 372 | 373 | .01 | <.01 | .05 | .01 | <.01 | " |
| 373 | 374 | .01 | <.01 | .03 | .01 | " | " |
| 374 | 375 | .01 | .01 | .17 | .03 | " | " |
| 375 | 376 | | | | | | |
| 376 | 377 | .01 | .01 | .10 | .04 | " | " |
| 377 | 378 | .03 | <.01 | .15 | .04 | " | " |
| 378 | 379 | .01 | <.01 | .09 | .01 | " | " |
| 379 | 380 | .02 | .01 | .09 | .01 | " | " |
| 380 | 381 | .05 | .02 | .05 | .26 | " | " |
| 381 | 382 | .04 | .01 | .44 | .20 | " | " |
| 382 | 383 | 1.00 | .29 | 1.72 | 4.00 | .25 | " |
| 383 | 384 | .01 | .01 | .14 | .03 | <.01 | " |
| 384 | 385 | .55 | .01 | .01 | .05 | " | " |
| 385 | 386 | .78 | .02 | .23 | .10 | " | " |
| 386 | 387 | .01 | .01 | .31 | .08 | " | " |
| 387 | 388 | .35 | .01 | .24 | .09 | " | " |
| 388 | 389 | .03 | .01 | .28 | .19 | .05 | " |
| 389 | 390 | .65 | .01 | .45 | .10 | .01 | " |
| 390 | 391 | .05 | .01 | .26 | .21 | <.01 | " |
| 391 | 392 | .05 | .02 | .14 | .12 | .02 | " |
| 392 | 393 | .04 | .01 | .19 | .11 | <.01 | " |
| 393 | 394 | .16 | .01 | .17 | .08 | .02 | " |
| 394 | 395 | .30 | .03 | .46 | .05 | .01 | " |
| 395 | 396 | .05 | .01 | .10 | .03 | <.01 | " |

| Footage From | To | %Sn | %Cu | Ag oz/t | %Pb | %Zn | %Sb |
|---|---|---|---|---|---|---|---|
| 396 | 397 | .04 | .01 | .08 | .01 | .01 | .01 |
| 397 | 398 | .10 | .01 | .13 | .11 | .01 | " |
| 398 | 399 | .17 | .01 | .14 | .05 | " | " |
| 399 | 400 | .02 | .01 | .11 | .05 | " | " |
| 400 | 401 | .09 | .01 | .21 | .05 | .01 | " |
| 401 | 402 | .20 | .02 | .05 | .55 | .01 | " |
| 402 | 403 | .48 | .20 | 1.46 | .61 | .05 | " |
| 403 | 404 | .01 | .02 | .12 | .10 | .01 | " |
| 404 | 405 | .02 | .01 | .21 | .09 | .01 | " |
| 405 | 406 | .02 | .03 | .38 | .09 | .02 | " |
| 406 | 407 | | | | | | |
| 407 | 408 | .04 | .01 | .29 | .05 | .01 | " |
| 408 | 409 | .03 | .03 | 1.16 | .26 | .02 | " |
| 409 | 410 | | | | | | |
| 410 | 411 | .02 | .01 | .06 | .07 | .01 | " |
| No number | | .01 | .03 | .24 | .05 | .01 | " |

| | | | |
|---|---|---|---|
| Property 081 QUEEN HILL | District Interl ional | Hole No G-9 (27: [illegible] | 72-863 [illegible] |
| Commenced | Location Zeehan Tasmania | Tests at | Hor. Comp. |
| Completed | Core Size | Corr. Dip 80° | Vert. Comp. |
| Co-ordinates | | True Brg. 257°M | Logged by |
| Objective | | % Recov. | Date |

| Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No. G-9 |
|---|---|---|---|---|---|
| | | | | | |

| Footage From | Footage To | Description | Sample No. | Length | Analysis |
|---|---|---|---|---|---|
| 0 | 10 | Filling and topsoil | | | |
| 10 | 47 | Dk grey-black shales and slates with interbedded grey qtzite bands 1/16-1½". Beds dip at 45-75°; some beds highly brecciated; graphite on some cleavage planes. $FeS_2$ on joint plane at 20'. Core broken due to failure along open joints. | | | |
| 47 | 58 | Grey qtzite; minor interbedded dk grey slates, graphitic on cleavage planes. Beds dip at 50-80°. Core broken mainly where slatey. | | | |
| 58 | 80 6 | Interbedded grey to dk grey slates and grey qtzites; beds dip 40-80°. Core recovery very poor partly due to open jointing and partly to faulting. | | | |
| 80 6 | 87 6 | Broken pieces of slate and qtzite with qtz veining and $FeS_2$ specks and belbs. Poor recovery due to faulting. | | | |
| 87 6 | 132 | Grey to dk grey slates and shales with interbedded grey qtzite bands. Occasional bands of qtzite breccia in a shale matrix (tuffaceous). Beds dip 30-65°. Occasional irreg qtz veins 1/16-½"; core faulted in various places; noted due to soft clay and broken core; eg 90' 100' 107'9". Core broken throughout especially in faulted zones and slate beds; galena specks and blebs for 4" at 87'6"; $FeS_2$ specks in ½" qtz vein at 121'6". | | | |
| 132 | 143 | Grey shale, brecciated (tuffaceous) in places, interbedded with pale grey qtzite; beds dip at 45°. ½" qtz pyrite vein at 139'; dip 70°. Occasional irreg quartz and siderite veins. | | | |
| 143 | 148 | Pale grey qtzite, micaceous. Numerous irreg 1/16-¼" qtz and siderite veins. | | | |
| 148 | 176 | Interbedded grey to dk grey slates and pale grey qtzites. Slates becoming tuffaceous (with qtzite breccia) at 172'. Recovery v poor 148-168 - faulted zone. | | | |

7640883

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Property 082 | | District | | | | | | | | | | | |
| Commenced | | Location | | Tests at | | Hor. Comp. | | | | | | | |
| Completed | | Core Size | | Corr. Dip | | Vert. Comp. | | | | | | | |
| Co-ordinates | | | | True Brg. | | Logged by | | | | | | | |
| Objective | | | | % Recov. | | Date | | | | | | | |

| Footage From | To | Description | Sample No. | Length | Analysis Sn% | Cu% | Ag oz/t | Pb% | Zn% |
|---|---|---|---|---|---|---|---|---|---|
| 176 | 178 | Black slate with abund $FeS_2$ as replacement vein exhibiting same lineations as bedding. | | | | | | | |
| | | Occasional irregular 1/16" quartz veins. | | | | | | | |
| 178 | 209 6 | Black shale with abund brecciated qtzite fragments (tuffaceous). Occasional pale grey qtzite bands ½-1"; beds dip at 50°. Rare 1/16" qtz veins | | | | | | | |
| 209 6 | 222 | Interbedded pale grey qtzites and green tuffaceous shales; beds dip at 50°. | 221-226 | 5' | 1.37 | 0.03 | 2.30 | 6.15 | 0.90 |
| | | Occasional.irreg. 1/16" qtz or siderite veins. $FeS_2$ veining 221'3"-222/ | | | | | | | |
| 222 | 225 10 | Massive pyritic lode material, with siderite and minor galena as irreg patches. Lode dip at 50°, same as bedding, indicating replacement. | | | | | | | |
| 225 10 | 251 9 | Dk grey tuffaceous shale with minor pale grey interbedded qtzite beds. Occasional irreg 1/16-¼" qtz and siderite veins. Beds dip at an average angle of 50° | | | | | | | |
| 251 9 | 259 | Highly brecciated and qtz veined qtzite with minor black graphitic slate - fault zone. | | | | | | | |
| 259 | 279 6 | Dk grey shale, black graphitic slate and minor interbedded pale grey qtzites. Beds dip at an average angle of 50°. Abundant 1/16" qtz veins(irregular) rare $FeS_2$ blebs 1/8-⅓" thick around 276'. | | | | | | | |
| | 279 6 | E N D O F H O L E | | | | | | | |

Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No. G-9

76484

083.

764065

| QUEEN HILL | | | | | | | DIAMOND DRILL HOLE G-9 |
|---|---|---|---|---|---|---|---|
| Footage From | To | %Sn | %Cu | Ag oz/t | %Pb | %Zn | %Sb |
| 0 | 220 | No samples | | | | | |
| 220 | 221 | .05 | .01 | .41 | .61 | .06 | .01 |
| 221 | 222 | .34 | .02 | .64 | .73 | .19 | " |
| 222 | 223 | 1.30 | .03 | 1.69 | 4.36 | .66 | " |
| 223 | 224 | 2.26 | .03 | 3.94 | 12.4 | 1.10 | " |
| 224 | 225 | 2.35 | .04 | 4.44 | 11.5 | 2.20 | " |
| 225 | 226 | .64 | .02 | .79 | 1.78 | .37 | " |
| 226 | 227 | .14 | .02 | .64 | .88 | .10 | " |
| 227 | 228 | .55 | .02 | .57 | .82 | .41 | " |

084

| | | | | | |
|---|---|---|---|---|---|
| Property | QUEEN HILL | District | International | Hole No. | G-10 |
| Commenced | | Location | Zeehan, Tasmania | Tests at | Hor. Comp. |
| Completed | | Core Size | | Corr. Dip | 79° Vert. Comp. |
| Co-ordinates | | | | True Brg. | 28° M Logged by |
| Objective | | | | % Recov. | Date |

Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No. G/10

| Footage From | Footage To | Description | Sample No. | Length | Analysis |
|---|---|---|---|---|---|
| 0 | 34 | Pale grey micaceous qtzites; minor grey argillite and pale grey, cg sandstones. Beds dip at 60°. Minor irreg 1/16-½" white qtz veins. | | | |
| 34 | 53 | Dk grey-black (graphitic in parts) slates with very minor pale grey qtzite bands 1/16-¼". Beds highly contorted due to shearing; original bedding not visible. Very poor recovery. | | | |
| 53 | 72 | Grey to dk grey slates with minor pale grey qtzite beds 1/16-¼" (qtzite beds often broken and displaced by minor faulting along cleavage lines); bedding dip varies (due to folding) between 30 and 70°; cleavage in some places is concordant with bedding, indicating a pre-cleavage period of folding. Occas irreg qtz & siderite veins | | | |
| 72 | 83 6 | Interbedded grey slates and pale grey micaceous qtzites; qtzites frequently brecciated beds dip at 45°. ¼" $FeS_2$ band, dip 45°, at 77' replacing bedding. $FeS_2$ and galena as specks on joints 76'10"-77'. | | | |
| 83'6" | 85'6" | Grey massive qtzite; beds dip at 30°; irreg qtz veining throughout. | | | |
| 85 6 | 87 | Interbedded dk grey shales and pale grey qtzites; beds dip 30°. Core broken at 87' due to faulting. | | | |
| 87 | 90 6 | Interbedded dk grey micaceous argillites and pale grey qtzites; qtzite beds are frequently tuffaceous with specks and blebs of $FeS_2$. Beds dip at 50° | | | |
| 90 6 | 134 6 | Grey to dk grey slates and shales interbedded with grey qtzites; beds occasionally tuffaceous. Dip of beds varies 25-70°, indicating fairly strong folding. Occasional irreg qtz veins 1/16-1/8"; rare $FeS_2$ specks. | | | |
| 134 6 | 135 6 | $FeS_2$ galena lode. Lode dips at 45° same as country rock. Some qtz blebs in $FeS_2$ | | | |
| 135 6 | 141 | Black slate; graphitic in part; minor interbedded pale grey qtzite bands; beds dip | | | |

ECKINGTON PRINT

Property 764087 District Hole No. G-10 (cont)

Commenced Location Tests at Hor. Comp.

Completed Core Size Corr. Dip Vert. Comp.

Co-ordinates True Brg. Logged by

Objective % Recov. Date

Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No. G-10 | Si

| Footage From | To | Description | Sample No. | Length | Analysis |
|---|---|---|---|---|---|
| | | at 50-60°; $FeS_2$ abundant as blebs and veins 1/16-1/8" thick replacing bedding. | | | |
| 141 | 144 6 | Interbedded dk grey slates and pale grey qtzites; beds dip at 50°; some beds | | | |
| | | tuffaceous. $FeS_2$ as specks from 143'6"-144'6". | | | |
| 144 6 | 149 | $FeS_2$ lode; minor irregular 1/16"-¼" qtz veins throughout. Lode dips at 40°; upper | | | |
| | | contact sharp; concordant with bedding. Black argillite, dip 40° 145'3"-146' with | | | |
| | | $FeS_2$ blebs and veins. | | | |
| 149 | 157 6 | Black graphitic slate, cleaveg dipping at 70°. ½" qtzite band at 154'9", bedding dips | | | |
| | | at 40°. Poor core recovery due to faulting 149-154'. | | | |
| 157 6 | 163 6 | Black slate, in parts graphitic; with minor grey qtzite bands; beds dip at 50°. $FeS_2$ | | | |
| | | as specks and blebs 161-162'6" | | | |
| 163 6 | 167 | Pale grey massive qtzite, micaceous on bedding planes; beds dip at 30°. | | | |
| 167 | 227 | Interbedded dk grey shales, slates and pale grey qtaites. Minor tuffaceous brecciated | | | |
| | | beds 177-181'. Beds vary in dip between 30° and 80°. 4" graphitic slate with qtz | | | |
| | | veining at 200'6". Rare 1/16-¼" irregular qtz veins. | | | |
| 227 | 231 9 | Interbedded grey qtzite and black graphitic slate, abundant irreg 1/16-½" qtz veins; | | | |
| | | beds dip at 60°. Siderite veins and $FeS_2$ specks at 228'6". $FeS_2$ as specks on joints | | | |
| | | and in qtzite beds at 231'6". | | | |
| 231 9 | 232 2 | Qtz-pyrite lode; banding in lode dips at 40°. Lode appears to be replacing bedding. | | | |
| 232 2 | 234 9 | Dk grey slates; abundant 1/16-¼" irreg qtz veins. Beds dip at 50°. $FeS_2$ disseminated | | | |
| | | throughoutas specks and veins 1/16-½" replacing bedding features. | | | |
| 234 9 | 252 | Grey to dk grey shales interbedded with pale grey qtzites; beds dip at av 50°. Minor | | | |
| | | 1/16-½" irreg quartz veins and $FeS_2$ bands (replacing bedding and quartz veins). $FeS_2$ | | | |

COCKINGTON PRINT

operty 764088 District Hole No. G-10 (cont)

Commenced Location Tests at Hor. Comp.

Completed Core Size Corr. Dip Vert. Comp.

Co-ordinates True Brg. Logged by

Objective % Recov. Date

Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No. G-10 (cont)

| Footage From | To | Description | Sample No. | Length | Analysis |
|---|---|---|---|---|---|
| | | mainly replaces qtzite beds, also as fine specks throughout many of the shale beds. | | | |
| 252 | 259 | Interbedded dark grey shales and pale grey qtzite; beds dip 30-60°. Frequent irreg | | | |
| | | 1/16-1/8" qtz veins; minor irreg 1/16" sphalerite veins. $FeS_2$ specks in qtzite at | | | |
| | | 256'5" for 3" and at 257' for 2" | | | |
| 259 | 260 | White qtzite with black graphitic slate fragments; abundant irreg qtz veining - | | | |
| | | barren lode material. | | | |
| 260 | 271 6 | Black graphitic slate with abundant 1/16" qtzite bands and stringers. Beds dip 50-70°. | | | |
| | | $FeS_2$ dissem in beds 260-261'. 2" $FeS_2$ qtz and siderite vein with minor galena at | | | |
| | | 261'2". Occasional $FeS_2$ specks scattered throughout. | | | |
| 271 6 | 275 | Interbedded grey shale and qtzite beds dip at 65°. Irregular 1/16-1/8" qtz veins | | | |
| | | scattered throughout. 1½" qtz $FeS_2$ vein at 271'8". | | | |
| 275 | 278 | Black graphitic slate with irreg qtzite bands. $FeS_2$ specks in qtzite. Very poor | | | |
| | | recovery - fault zone. | | | |
| 278 | 288 | Highly contorted grey slate with blebs of qtzite and irreg veins of both qtz and | | | |
| | | siderite. $FeS_2$ disseminated throughout. Faulted zone. | | | |
| 288 | 293 | Qtz-$FeS_2$ lode as veins up to 2" and dissem as stringers through black slate. Dip of | | | |
| | | banding in lode at 290'6" is 40°. No relationship between banding in lode and | | | |
| | | lineations in the enclosed slate host rock. | | | |
| 293 | 326 | Interbedded grey to dk grey shales and pale grey qtzites; beds dip 55-60°. Irregular | | | |
| | | 1/16"-½" qtz veins scattered throughout. $FeS_2$ specks in qtzite at 320' for 4". | | | |
| 326 | 359 | Grey to grey-black shales and slates with interbedded pale grey qtzite bands. Frequent | | | |
| | | beds of grey slate with brecciated quartzite fragments; beds contorted throughout due | | | |

COCHINGTON PRINT

Property 764089 | District | Hole No. G-10 (cont)

Commenced | Location | Tests at | Hor. Comp.

Completed | Core Size | Corr. Dip | Vert. Comp.

Co-ordinates | True Brg. | Logged by

Objective | % Recov. | Date

Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No. G-10 Sheet

| Footage From | To | Description | Sample No. | Length | Analysis |
|---|---|---|---|---|---|
| | | TO folding; dip of beds varies between 45° and vertical. Occasional irreg 1/16-1/8" quartz veins. Irreg 1/8-1"siderite veins 328-329 carrying $FeS_2$. Rare $FeS_2$ specks elsewhere. | | | |
| 359 | 368 | Interbedded grey shale and pale grey qtzites; dip at 40-50°. Occasional 1/16-¼" irreg qtz veins. $FeS_2$ specks in ¼" quartzite band at 360'6". | | | |
| 368 | 408 | Interbedded grey shale and pale grey qtzite; beds dip at,10-60°; folded throughout. Occasional 1/16-1/8" irreg qtz veins. Qtzite beds are micaceous ½" fault pug (horizontal) at 408'; $FeS_2$ specks abundant in the pug. | | | |
| 408 | 412 3 | Pale grey micaceous qtzite; beds dip at 55-60°. Irregular 1/16-½" qtz veins scattered throughout; minor grey shale. | | | |
| 412 3 | 420 | Dk grey micaceous siltstone; minor grey shale. Beds dip 10-80°; strong folding. Faulting evident at 418'; fault plane dipping at 70°. Occasional 1/16" irreg qtz veins | | | |
| 420 | 428 | Pale grey qtzite; minor dk grey shale bands; beds dip at 40-60°. Qtzite beds brecciated at 225 for 6". Occasional 1/16"-½" irreg qtz veins; 4' broken core and fault pug with $FeS_2$ specks at 427'6" | | | |
| 428 | 462 | Interbedded grey to dk grey shales, slates and qtzites; beds dip 30-65°. Occasional irreg 1/8-¼" qtz veins. Faulted 430-434'. Rare $FeS_2$ blebs. | | | |
| 462 | 474 | Contorted black slates; graphitic in parts; minor grey qtzite. Qtz-$FeS_2$-siderite veins and blebs 1/16-¼" scattered throughout, also $FeS_2$ specks scattered through the beds and on joint planes. ¼" galena blebs at 467'6". Poor recovery - faulted zone. | | | |
| 474 | 492 | Grey to dk grey interbedded siltstones, shales and minor qtzites. Beds dip at 50-65° Occasional 1/16-¼" qtz and siderite veins dip 30-45°. $FeS_2$ specks through some | | | |

COCHENOUR PRINT

| Property | 764090 | District | | Hole No. G-10 (cont) | |
|---|---|---|---|---|---|
| Commenced | | Location | | Tests at | Hor. Comp. |
| Completed | | Core Size | | Corr. Dip | Vert. Comp. |
| Co-ordinates | | | | True Brg. | Logged by |
| Objective | | | | % Recov. | Date |

Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No. G-10 St

| Footage From | Footage To | Description | Sample No. | Length | Analysis Au oz/t | Ag oz/t | Pb % | Zn % |
|---|---|---|---|---|---|---|---|---|
| | | qtzite beds also as rare blebs (¼-½" across) especially 488-492 | | | | | | |
| 492 | 513 10 | Grey-black shales slates and pale grey qtzites; beds highly contorted; dip varies 50°- | | | | | | |
| | | 85°; Frequent 1/16-½" irreg qtz veins (minor siderite) indicating minor shearing | | | | | | |
| | | throughout; $FeS_2$ throughout as specks blebs and replacing bedding in some cases. | | | | | | |
| 513 10 | 518 3 | Solid qtz-$FeS_2$ lode; siderite associated with the $FeS_2$ | | | | | | |
| 518 3 | 525 6 | Black slate & clay pug - fault pug material, qtz and $FeS_2$ dissem throughout | | | | | | |
| 525 6 | 551 | Highly contorted grey-black siltstone slate & minor qtzite; abund irreg 1/16-½" qtz | | | | | | |
| | | veins; ½" $FeS_2$ & siderite band, dip 85° 529'6-630'6; ¾" qtz-$FeS_2$ vein, dip 85° at 543' | | | | | | |
| | | $FeS_2$ as occasional specks throughout. | | | | | | |
| 551 | 552 | Black clay pug; $FeS_2$ dissem throughout - fault. | | | | | | |
| 552 | 562 | Grey-dk grey shale, slates and qtzites; beds highly contorted; dip 20-50°; 1/16-¼" | | | | | | |
| | | irreg qtz veins scattered throughout; $FeS_2$ as occasional specks & blebs 559-562'. | | | | | | |
| 562 | 565 | Solid qtz-pyrite lode; minor stannite and galena; stannite mostly 562-563; banding in | 562-566 | 4 | 2.93 | 1.19 | 12.02 | 1.73 | 0.15 |
| | | lode dips 45°. | | | | | | |
| 565 | 586 6 | Black slates & interbedded grey qtzites, highly contorted; freq irreg 1/16-¼" qtz veins | | | | | | |
| | | (some siderite); $FeS_2$ throughout as specks & blebs. 1" $FeS_2$ & qtz vein dip 85 at 514! | | | | | | |
| 586 6 | 598 6 | Black shales and grey qtzite, contorted; dip 45-80°, generally 50-55°; freq 1/16-¼" | | | | | | |
| | | irreg qtz veins. ½" $FeS_2$ vein dip 70° at 596'6"; $FeS_2$ scattered as specks & blebs | | | | | | |
| 598 6 | 606 8 | Grey-dk grey siltstone and shales; beds dip 60-75°; $FeS_2$ veins abundant 598'6"-603'; | | | | | | |
| | | irreg 1/16-½" 1' qtz-siderite-$FeS_2$, minor galena 599'2", dip 55°. 3" fault, dip 65° | | | | | | |
| | | at 605'6". | | | | | | |

COCKINGTON PRINT

1089 764691

Property: QUEEN HILL | District | Hole No. G.10 (cont'd)

Commenced | Location | Tests at | Hor. Comp.

Completed | Core Size | Corr. Dip | Vert. Comp.

Co-ordinates | True Brg. | Logged by

Objective | % Recov. | Date

| Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No. |
|---|---|---|---|---|---|
| | | | | | |

| Footage From | To | Description | Sample No. | Length | Analysis |
|---|---|---|---|---|---|
| 606'8" | 610' | Fault: shattered siltstone and soft clay pug with quartz-siderite lode fragments Lode recovery 40%. | | | |
| 610' | 626' | Grey to dark grey siltstones and slates: bedding dips at 60°-70°, frequent irregular 1/16" - ¼" thick quartz veins. Occasional $FeS_2$ blebs. Fault dip, 85°, at 610'. ¼" wide curved fault, dip 85° at 614', 617'. ½" wide bedding plane fault, dip 65°, at 625'4". | | | |
| 626' | 628' | Quartz-siderite lode: minor $FeS_2$ disseminated as veins up to 2½" thick in included shales, lode dips at 50°. Brecciated at 626'4" due to faulting. | | | |
| 628' | 637' | Grey to dark grey shales and siltstones: shales graphitic at 628' for 5'9". Beds dip at 65° at 635'. Abundant $FeS_2$ disseminated as specks and irregular veins from 628'-635'. | | | |
| 637' | 711'9" | Interbed black slates and pale grey fine grained quartzites: Quartzites mostly exhibiting a slaty cleavage. Bedding irregular so that quartzites often appear as stringers or irregular patches (due to cleavage stresses). Quartzite beds sometimes brecciated. Beds dip at 60°-90° from 637'-675'6", at 60° from 675'6" - 681', at 85°-90° from 681'-697', and at 70° from 697'-711'9". Rare 1/16-1/8" thick planar quartz veins. Mineralization: Rare $FeS_2$ blebs 1/8"-½" thick, irregular in outline, possibly segregations of syngenetic $FeS_2$ from surrounding beds. Fine grained $FeS_2$ often disseminated through the quartzite beds. ¼" thick $FeS_2$-siderite vein, | | | |

./2

COCKINGTON PRINT

| Property | QUEEN HILL | District | 764092 | Hole No. | G.10 (cont'd) |
|---|---|---|---|---|---|
| Commenced | | Location | | Tests at | Hor. Comp. |
| Completed | | Core Size | | Corr. Dip | Vert. Comp. |
| Co-ordinates | | | | True Brg. | Logged by |
| Objective | | | | % Recov. | Date |

| Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No. |
|---|---|---|---|---|---|
| | | | | | |

| Footage From | To | Description | Sample No. | Length | Analysis |
|---|---|---|---|---|---|
| | | dip 75° at 663'. 1/16" thick quartz-galena vein, dip 60°, at 612'. ½" thick | | | |
| | | brecciated fault zone with siderite matrix, dip 74° at 693'. 1 3/4" thick $FeS_2$ | | | |
| | | siderite vein, dip 60°, at 702'. | | | |
| 711'9" | 712'3" | Black slates with abundant $FeS_2$ specks and blebs: beds contorted, $FeS_2$ disseminated | | | |
| | | throughout. | | | |
| 712'3" | 715' | Siderite vein; massive siderite vein, dipping at 76°. | | | |
| 715' | 716' | Brecciated siderite vein: brecciated siderite with included slate country rock | | | |
| | | and disseminated $FeS_2$, dip at 75°, faulted. | | | |
| 716' | 720'6" | Fault pug and shattered slates: soft black fault pug and shattered black slates, | | | |
| | | fault plane at 716' dips at 75°. | | | |
| 720'6" | 723'6" | Grey quartzites, minor dark grey slates: highly contorted beds, irregular 1/16"- | | | |
| | | 1/4" wide quartz veins and $FeS_2$ specks scattered throughout. Core broken into | | | |
| | | 1/4"-2" pieces. | | | |
| 723'6" | 724'6" | Fault pug with broken quartzite peices: soft clayey fault pug with angular 1/16" | | | |
| | | -1/4" wide pieces of quartzite $FeS_2$ specks scattered throughout. Recovery 85%. | | | |
| 724'6" | 736' | Grey quartzites and black slates: beds highly contorted, dip at 50°-90°, irregular | | | |
| | | 1/16"-½" thick quartz veins scattered throughout. | | | |
| | | Mineralization: $FeS_2$ scattered throughout as blebs and irregular veins 1/16"-¼" | | | |
| | | thick. 2" thick quartz-siderite vein, dip 70°, at 732'6". 1½" thick quartz- | | | |
| | | $FeS_2$ vein, dip 60° at 729'9". | | | |

COCKINGS PRINT

| Property 091 QUEEN HILL | District 764093 | Hole No. G.10 (cont'd) | |
|---|---|---|---|
| Commenced | Location | Tests at | Hor. Comp. |
| Completed | Core Size | Corr. Dip | Vert. Comp. |
| Co-ordinates | | True Brg. | Logged by |
| Objective | | % Recov. | Date |

| Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No. |
|---|---|---|---|---|---|
| | | | | | |

| Footage From | To | Description | Sample No. | Length | Analysis |
|---|---|---|---|---|---|
| 736' | 738' | Quartz-$FeS_2$ lode: Massive quartz-siderite-$FeS_2$ lode, dip of 70° in lode at 736'6". 1½" of clay fault pug at 737'. Recovery only 50%. | | | |
| 738' | 740'6" | Fault pug: soft grey clay fault pug with shattered slate and quartzite fragments. | | | |
| 740'6" | 743'6" | Grey quartzites, minor dark grey slates: beds highly contorted. Siderite and quartz veins through quartzites | | | |
| 743'6" | 744'6" | Quartz-siderite-$FeS_2$ lode: Massive quartz-siderite lode with $FeS_2$ disseminated THROUGHOUT. Contact at 744'6" dips at 50°. | | | |
| 744'6" | 808'6" | Black graphitic slates, very minor grey quartzites: beds vary in dip between 60° and 85°, average dip is 65°. 2" of fault pug at 768'10". Between 769' and 772'6" beds dip at 80°-85°. Quartzites mainly from 744'6" - 762', 1/16"-½" thick beds. 1'3" of pale cream chert from 758'9" - 760'. Irregular 1/16" - 1/8" thick quartz veins scattered between 744'6" - and 760'. ½" fault pug at 783'. | | | |
| | | Mineralization: $FeS_2$ rare, scattered throughout as 1/16" - 1" thick blebs, irregular veins and disseminated as apparent syngenetic $FeS_2$. | | | |
| 808'6" | 813' | Quartz-Calcite veining in contorted slates: 1/16" - 3/4" thick quartz and calcite veins, irregular, through contorted black slate, slate brecciated at 813'. Dip of main veining is 75° - a fault zone. | | | |
| 813' | 886'4" | Black graphitic slates: strongly graphitic black slates. 6" contorted quartzite band at 824'8". Cleavage dips at 60°-70° from 813'-829'. Fault from 829'-830' (black pug and broken slate). Cleavage dips at 80° - 90° from 830'-831'. | | | |

COCKINGTON PRINT

092

| Property | QUEEN HILL | District | 764094 | Hole No. | G.10 (cont'd) | Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Commenced | | Location | | Tests at | Hor. Comp. | | | | | | |
| Completed | | Core Size | | Corr. Dip | Vert. Comp. | | | | | | |
| Co-ordinates | | | | True Brg. | Logged by | | | | | | |
| Objective | | | | % Recov. | Date | | | | | | |

| Footage From | To | Description | Sample No. | Length | Analysis |
|---|---|---|---|---|---|
| | | 3" thick chert bed, dip 70°, at 829'6". Faulted from 831'-857', broken slate | | | |
| | | and slack pug recovery only 25%. Cleavage dip at 75°-85° from 851'-861', at 60° | | | |
| | | from 861'-886'4". Faulted from 871'6" - 876'6", pug and slate-recovery only 20%. | | | |
| 886'4" | 890' | Grey siltstone: hard grey siltstone, bedding or cleavage not distinguishable. | | | |
| | | 1/16" thick irregular quartz and $FeS_2$ veins scattered throughout. | | | |
| 890' | 895'9" | Pale grey tuffaceous shale: fine-medium grained tuffaceous shale, cleavage | | | |
| | | dips at 65°, beds dip at 45°. | | | |
| 895'9" | 897'9" | Grey siltstone: hard grey fine grained siltstone, cleavage dips at 60°, | | | |
| | | graphitic on cleavage planes. | | | |
| 897'9" | 909'6" | Black slates: cleavage dips at 65°-70°, graphitic on cleavage planes. Rare | | | |
| | | $FeS_2$ blebs. | | | |
| 909'6" | 912' | Grey siltsone: hard grey, fine grained siltstone, beds highly contorted, often | | | |
| | | brecciated. | | | |
| 912' | 940'10" | Interbedded black slates and grey quartzites: slates slightly graphitic in | | | |
| | | parts, quartzites often minor and brecciated. Beds very contorted, dip varies | | | |
| | | from 40°-90°. Rare $FeS_2$ blebs from 938'-940'10". | | | |
| 940'10" | 941' | Fault: 1½" thick slate breccia in quartz matrix followed by ½" thick quartz | | | |
| | | $FeS_2$ vein. Fault plane dips at 35°. | | | |
| 941' | 980' | Spilitic Tuff: pale grey fresh spilitic tuff, in parts agglomeratic or amygdaloidal. | | | |
| | | Where discernible, flow in agglomerate dips at 60°-65°. Amygdales quartz or | | | |
| | | calcite filled. Occasional irregular or planar 1/16" - 1/8" thick quartz or | | | |
| | | calcite veins. ¼" thick $FeS_2$-siderite veins, dip 50° at 942'9" and 943'3" | | | |

END OF HOLE AT 980'

COCKINGTON PRINT

093

| | | | | | |
|---|---|---|---|---|---|
| Property | Queen Hill 764095 | District | International | Hole No. | G.11 |
| Commenced | 24th August, 1971 | Location | Zeehan, Tasmania | Tests at | |
| Completed | 28th August, 1971 | Core Size | | Corr. Dip | 65° |
| Co-ordinates | | | | True Brg. | 282° |
| Objective | To intersect pyrite mineralization. | | | % Recov. | |

72-865

Hor. Comp.
Vert. Comp.
Logged by P.O'Shea & D. Brown
Date

| Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No. |
|---|---|---|---|---|---|
| | | | | | |

| Footage From | To | Description | Sample No. | Length | Analysis |
|---|---|---|---|---|---|
| 0' | 16'9" | Dark grey-black slates with brecciated 1/16" - 1/2" grey quartzite fragment. Beds dip at 35°. | | | |
| 16'9" | 26' | Interbedded dark grey-black slates and pale grey fine-medium grained quartzites. 9" Micaceous quartzite at 19'9". Beds dip at 25°-50°, disconformities noticed between some beds. | | | |
| 26' | 29' | Pale grey quartzite, micaceous, medium grained, beds dip at 45°. Joints irregular, cemented with <1/8" thick quartz veins. Some joints Fe-stained. | | | |
| 29' | 36' | Interbedded dark grey-black siltstones and pale grey fine-medium grained quartzite. Beds dip at 35°-45°. Rare 1/16" - 1/4" irregular quartz veins. | | | |
| 36' | 87' | Highly contorted grey-black slates, pale grey quartzites and brecciated quartzites fragments in slate matrix. Beds dip at between 10° and 80°, average dip of 50°. Irregular 1/16" - 1/4" thick quartz and siderite veins scattered throughout. 1/2" thick quartz, FeS siderite vein, dip 70°, at 39'6". 3/4" thick $FeS_2$ siderite vein, dip 60°, at 50'. Poor recovery between 74' and 87'. | | | |
| 87' | 110' | Interbedded dark-grey slates and palegrey quartzites, beds contorted. Beds dip at 30°-85° due to folding. Occasional 1/16"-1/8" irregular quartz veins. 1½" thick quartz-$FeS_2$ vein dip 30°, at 99'11". | | | |
| 110' | 113'6" | Brecciated quartzite fragments in black slate matrix, beds highly contorted. Rare $FeS_2$ specks and 1/16" - 1/4" thick irregular veins. Poor recovery 112'-113'. | | | |

Property Queen Hill 094 | District International | Hole No. G.11

Commenced 24th August, 1971 | Location Zeehan, Tasmania | Tests at | Hor. Comp.

Completed 28th August, 1971 | Core Size | Corr. Dip 65° 8 | Vert. Comp.

Co-ordinates | True Brg. 282 | Logged by P.O'Shea, D. Brown

Objective To intersect pyrite mineralization. | % Recov. | Date

| Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No. |
|---|---|---|---|---|---|
| | | 76 40 96 | | | |

| Footage From | Footage To | Description | Sample No. | Length | Analysis Sn | Cu | Ag | Pb |
|---|---|---|---|---|---|---|---|---|
| 113'6" | 118' | Pyrite-galena lode, very minor quartz. Banding in lode dips at 50°, same as | 113'– | 117' | | | 15·47 | 15·6 |
| | | enclosed country rock. Antimonial sheen on fracture surface at 114'. | 147'– | 148' | 0·88 | 1·15 | 10·4 | 2·0 |
| 118' | 123'6" | Highly contorted dark grey slates and grey quartzites with brecciated grey | | | | | | |
| | | quartzite fragments through some beds. $FeS_2$ scattered throughout as specks and | | | | | | |
| | | blebs. Irregular 1/16" - 1/8" quartz veins. | | | | | | |
| 123'6" | 147' | Highly contorted black slates, minor brecciated quartzite. Abundant irregular | | | | | | |
| | | quartz veins and blebs 1/16"-1/4" thick, and abundant $FeS_2$ veins and blebs | | | | | | |
| | | 1/16"-1" thick, especially 124'9" - 125'9", 127'-127'7", 140'6"-141'6". Major | | | | | | |
| | | quartz and $FeS_2$ veins dip at 40°-45°. | | | | | | |
| 147' | 151' | Quartz-pyrite lode. Banding in lode dips at 45°-55°. | | | | | | |
| 151' | 163'9" | Highly contorted black slates, minor grey quartzite as stringers. Beds slightly | | | | | | |
| | | graphitic throughout. Major lineation dip at 45°-60°. Frequent irregular 1/16" | | | | | | |
| | | -1/4" thick quartz veins, rare 1/16"-1/8" thick $FeS_2$ veins and blebs. 1" fault | | | | | | |
| | | pug, plane dips at 40° at 153'10". | | | | | | |
| 163'9" | 164'9" | Pale grey, medium grained quartzite, beds dip at 45°-60°. 1/16"-1/8" thick | | | | | | |
| | | quartz and siderite veins scattered throughout. $FeS_2$ specks scattered throughout. | | | | | | |
| 164'9" | 183' | Dark grey-black slates, minor grey quartzite beds. Quartzite beds 1/16"-1/2" | | | | | | |
| | | thick. Beds strongly folded, dip varies between 40° and 70°. Average dip 50°. | | | | | | |
| | | Occasional 1/16"-1/8" thick irregular quartz and siderite veins. 1/8" thick | | | | | | |
| | | siderite-fluorite (?) vein, dip 42°, at 171'6". 1/4" thick siderite-pyrite vein, | | | | | | |
| | | dip 25°, at 174'6". 1/8" thick siderite $FeS_2$ vein, dip 60° at 176'10". Rare | | | | | | |
| | | $FeS_2$ blebs. | | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| Property | Queen Hill 095 | District | International | Hole No. | G.11 |
| Commenced | 24th August, 1971 | Location | Zeehan, Tasmania | Tests at | |
| Completed | 28th August, 1971 | Core Size | | Corr. Dip | 65° |
| Co-ordinates | | | | True Brg. | 282° |
| Objective | / To intersect pyrite mineralization. | | | % Recov. | |

Hor. Comp.

Vert. Comp.

Logged by P.O'Shea, D. Brown

Date

| Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No. |
|---|---|---|---|---|---|
| | | | | | 76097 |

| Footage From | To | Description | Sample No. | Length | Analysis |
|---|---|---|---|---|---|
| 183' | 183'10" | Pale grey medium grained quartzite, bedding dips at 45°. | | | |
| 183'10" | 201' | Interbedded grey-dark grey black slates and grey quartzites. Quartzite beds often much more contorted than slates. Some beds consist of brecciated quartzite fragments in slate matrix. Beds dip at 40°-65°, average 50°. 1/2" thick $FeS_2$ veining, dip 70° at 190'2". Rare $FeS_2$ blebs and quartz siderite veining. | | | |
| 201' | 203'6" | Grey fine-medium grained quartzites minor grey slates. Beds dip at 55°-60°. Occasional irregular 1/16"-1/4" thick quartz and siderite veins 1/4" thick $FeS_2$ vein, dip 65° at 202'9". | | | |
| 203'6" | 223' | Grey to dark grey-black slates, minor grey quartzites. Beds dip at 10°-70°, contorted. Occasional beds of brecciated quartzite fragments in black slate matrix. Irregular 1/16"-1/8" thick quartz and siderite veins scattered throughout. Rare $FeS_2$ blebs. | | | |
| 223' | 227' | Grey fine-medium grained quartzite, minor dark grey shale. Beds dip at 65°. | | | |
| 227' | 284'6" | Grey to dark grey-black slates, minor grey quartzites. Beds highly contorted from 252'-284'6". Beds dip at average of 50° from 227'-252', from 252'-284'6" dip varies between 25° and 85°. Quartzite beds often broken and drawn out into stringers. Occasional 1/10" - 1/4" thick irregular quartz and siderite veins, especially between 269' and 284'6". Fault between 248'3" and 249'3", dip 20° 2" thick $FeS_2$ galena vein in fault at 248'9", $FeS_2$ veins between 248'9' and 249'3". 3/4" thick quartz $FeS_2$ vein, dip 40° at 269'. Occasional irregular 1/16"-1/8" $FeS_2$ veins and blebs between 269' and 284'6". | | | |

| | | | | | |
|---|---|---|---|---|---|
| Property | Queen Hill 096 | District | International | Hole No. | G.11 |
| Commenced | 24th August, 1971 | Location | Zeehan, Tasmania | Tests at | Hor. Comp. |
| Completed | 28th August, 1971 | Core Size | | Corr. Dip | 65° Vert. Comp. |
| Co-ordinates | | | | True Brg. | 282° Logged by P.O'Shea, D. Brown |
| Objective | To intersect pyrite mineralization. | | | % Recov. | Date |

| Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No. |
|---|---|---|---|---|---|
| | | | | | 76498 |

| Footage From | To | Description | Sample No. | Length | Analysis Sn | Cu | Pb | Ag |
|---|---|---|---|---|---|---|---|---|
| | | 1½" thick quartz-siderite $FeS_2$ - galena vein, dip 60° at 280'3". | 352'-354' | | 0.86 | 0.38 | 452 | 515 |
| 284'6" | 299' | Grey to dark grey black shales and interbedded pale grey quartzites. Beds | 356'-360' | | 0.07 | 0.03 | 18.1 | 241 |
| | | dip at 50°-90°, average 55°, beds highly contorted between 286' and 296'. | | | | | | |
| | | 1/16"-1/8" thick quartz and siderite veins scattered throughout $FeS_2$ as 1/16"-½" | | | | | | |
| | | irregular veins and blebs between 289' and 289'6". | | | | | | |
| 299' | 326' | Black slates, minor grey quartzite as highly contorted beds and stringers. Core | | | | | | |
| | | highly contorted, with frequent 1/16"-1/8" irregular quartz veins. 1/2" thick | | | | | | |
| | | $FeS_2$ vein, dip 70°, at 304'6", elsewhere $FeS_2$ as rare 1/16"-1/4" blebs. | | | | | | |
| 326' | 333' | Dark grey to black slates with fine irregular laminations. Frequent irregular | | | | | | |
| | | quartz veins up to 1/16"-1/4". Slickenside fault, dips 72° at 330'. | | | | | | |
| 333' | 333'6" | Black slate-quartz chips. Possible fault zone? | | | | | | |
| 333'6" | 347' | Black slate, very slight laminations with faint quartzite stringers. Highly | | | | | | |
| | | contorted. Very numerous irregular quartz veins. 1/16"-3/8". Fault zone | | | | | | |
| | | between 339'1"-340', approx. dip 75°. Scattered siderite and $FeS_2$ veins | | | | | | |
| | | increasing with depth, 1/16"-3/4". Pronounced $FeS_2$ veins at 340'9" dip approx. | | | | | | |
| | | 45° 342'6" dip 55°. 345'11" dip approx. 50°. | | | | | | |
| 347' | 362'6" | Black slate with very minor laminations of quartzite. Highly contorted. Very | | | | | | |
| | | numerous quartz veins, average dip when readable 50°. Numerous scattered | | | | | | |
| | | siderite and $FeS_2$ veins up to 1/4" thick. Strongly veined between 352'6" and | | | | | | |
| | | 354'6", massive pyrite with galena, sphalerite and siderite veins between | | | | | | |
| | | 352'7" and 353'5", average dip 40°. Galena, pyrite and sphalerite veins up to | | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| Property | Queen Hill 097 | District | International | Hole No. | G.11 |
| Commenced | 24th August, 1971 | Location | Zeehan, Tasmania | Tests at | |
| Completed | 28th August, 1971 | Core Size | | Corr. Dip | 65° |
| Co-ordinates | | | | True Brg. | 282° |
| Objective | To intersect pyrite mineralization. | | | % Recov. | |

T 64099

Hor. Comp.

Vert. Comp.

Logged by P.O'Shea, D. Brown

Date

| Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No. |
|---|---|---|---|---|---|
| | | | | | |

| Footage From | To | Description | Sample No. | Length | Analysis Sn | Cu | Ag | Pb | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 1" thick between 356'7" and 359', with solid galena between 356'9½" and 356'11" | 461' | 615' | 0.50 | 0.03 | | | | |
| | | which dips at 25°. | 466' | 470' | 0.55 | 1.0 | 5.01 | 0.76 | | |
| 362'6" | 377' | Black slate with minor interbedded and laminated grey dark grey quartzite. | 474' | 475' | 0.55 | 1.45 | 7.60 | | | |
| | | Highly contorted. Minor irregular quartz and siderite veins, up to 1/8" thick, | 491' | 505' | 1.52 | 0.02 | | | | |
| | | with average dip of 50°. Very slight $FeS_2$ mineralization in a few veins. Some small | | | | | | | | |
| | | fault zone - 366'. | | | | | | | | |
| 377' | 402' | Black slate with minor interbedded and laminated light grey to dark grey quartzite. | | | | | | | | |
| | | Highly contorted. Numerous irregular quartz and siderite veins, siderite veins | | | | | | | | |
| | | up to 3/4" thick with average dip of 50°. $FeS_2$ and sphalerite veins at 383'. | | | | | | | | |
| | | (3/8" thick 75° dip) and 385' (3/4" thick, 57° dip). Possible fault zone at | | | | | | | | |
| | | 353' for 6" either side. | | | | | | | | |
| 402' | 422' | Dark grey to black slate with minor interbedded and laminated grey to dark grey | | | | | | | | |
| | | quartzites. Contorted in places laminations show average dip of between 50° and | | | | | | | | |
| | | 65°. Irregular quartz and $FeS_2$ veins up to 1/2" thick. $FeS_2$ vein at 405'9", | | | | | | | | |
| | | 1/2" thick dips 65° at 407'3" $FeS_2$ vein (3/8") dips 63°. | | | | | | | | |
| 422' | 431' | Black slate with minor interbedded and laminated grey quartzite in places. | | | | | | | | |
| | | Highly contorted. Very fine, disseminated $FeS_2$ appears throughout, predominated | | | | | | | | |
| | | within the slate. Numerous irregular quartz and siderite veins, together with | | | | | | | | |
| | | $FeS_2$ up to 1/2" thick. Closely veined sulphide with massive veins up to 1 3/4" | | | | | | | | |
| | | between 426'10"-427'1" (dip 45°), 427'4"-429'6" (average dip of veins approx. | | | | | | | | |
| | | 45°). | | | | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| Property | Queen Hill 098 | District | International | Hole No. | G.11 |
| Commenced | 24th August, 1971 | Location | Zeehan, Tasmania | Tests at | |
| Completed | 28th August, 1971 | Core Size | | Corr. Dip | 65° |
| Co-ordinates | | | | True Brg. | 282° |
| Objective | To intersect pyrite mineralization. | | | % Recov. | |

764100

Hor. Comp.

Vert. Comp.

Logged by P.O'Shea, D. Brown

Date

| Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No. | Sheet |
|---|---|---|---|---|---|---|
| | | | | | | |

| Footage From | Footage To | Description | Sample No. | Length | Analysis |
|---|---|---|---|---|---|
| 431' | 433' | Fault zone - puggy black slate with disseminated $FeS_2$. | | | |
| 433' | 453' | Dark grey to black laminated slate with minor interbedded laminated grey quartzite. Moderately to strongly contorted. Irregular quartz and siderite veins, with minor $FeS_2$ in some veins and as individual crystals aggregates. Laminations when not contorted dip at between 65° and 75°. Galena vein 1/4" thick dipping at 65° at 452'10". Very minor $FeS_2$ blebs throughout. | | | |
| 453' | 462'4" | Black slate with very minor interbedded quartzite laminations and stringers. Contorted in places. Irregular quartz and siderite veins up to 3/8" thick, with numerous $FeS_2$ veins and blebs, the veins up to 1/2" thick, with fine $FeS_2$ disseminated throughout core from 456'-sulphide mineralization increasing with depth. Possible fault (3") at 456'6". Laminations show average dip of 45°. | | | |
| 462'4" | 469'2" | Black slate with minor interbedded laminated grey quartzite. Irregular sparse quartz veins up to 3/8" thick . Strong to very strong $FeS_2$ veining, becoming massive in places. Where discernable, veins average dip is approximately 65°. Between 446'10" and 468'11", $FeS_2$ very strongly veined to massive possible fault at 466', dip approx. 35°. | | | |
| 469'2" | 483'9" | Black slate, highly contorted, with numerous small faults on joints, 1/8" thick filled with grey-black pug. Irregular sparsely disseminated to disseminated fine $FeS_2$, with strong vein to massive $FeS_2$ between 474'6"-476'1" (Approx. dip 45° to 55°) and 483'6" (dip approx. 60°). | | | |

[redacted]

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Property | Queen Hill 099 | District | International | Hole No. | G.11 | | | Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No. |
| Commenced | 24th August, 1971 | Location | Zeehan, [redacted]smania | Tests at | | Hor. Comp. | 764101 | | | | | | |
| Completed | 28th August, 1971 | Core Size | | Corr. Dip | 65° | Vert. Comp. | | | | | | | |
| Co-ordinates | | | | True Brg. | 282° | Logged by | P.O'Shea, D. Brown | | | | | | |
| Objective | To intersect pyrite mineralization. | | | % Recov. | | Date | | | | | | | |

| Footage From | To | Description | Sample No. | Length | Analysis |
|---|---|---|---|---|---|
| 483'9" | 489'11" | Black slate, contorted, numerous to very numerous $FeS_2$ with quartz veins, up to 1/2" wide. Veins where regular, have an average dip of between 35°-45°. Fine disseminated $FeS_2$ throughout. 483'9"-484'10", galena and siderite veins? 485'½"-485'2" pyrite veins, practically massive, dip 35°. | | | |
| 489'11" | 504'10" | Massive to very coarse, strongly disseminated sulphide within a gangue of quartz and black slate. Galena and sphalerite present between 489'11"-490'0" (dip 40°) 490'2"-490'5½" (dip approx. 20°). | | | |
| 504'10" | 505'10" | Light grey to dark grey quartz with minor black shale. Strong sulphide mineralization between 505'5"-505'7" and large bleb at 506'2" (1" dia. approx.). | | | |
| 505'10" | 507'10" | Massive to strongly veined and coarsely disseminated sulphides within a quartz black slate gangue. Fault with quartz infilling at 507'5½", dips 60°. | | | |
| 507'10" | 520'10" | Light-green-yellow spilite. Disseminated fine pyrite in thin (up to 1/8"), very irregular vein. Most pronounced between 507'10"-511'0" and at 520'4"-520'10", where quartz veins are present (1/4" wide) which dip at 65°. | | | |
| 520'10" | 557' | Hard, light green yellow to green spilite, showing cryptdaloidal texture. Pyrite on some thin (1/16") joint? planes. Occasional thin quartz veins associated with fine pyrite. | | | |
| | | END OF HOLE | | | |
| | | Topari Results 300' Inclination 67° | | | |
| | | Topari Results 520' Inclination 65° Bearing 282° | | | |

100

| | | | |
|---|---|---|---|
| Property QUEEN HILL | District | Hole No. G.11 WEDGE RUN | 72-865 764102 |
| Commenced 8/9/1971 | Location ZEEHAN, TASMANIA | Tests at | Hor. Comp. |
| Completed 10/9/1971 | Core Size "B" | Corr. Dip 59° | Vert. Comp. |
| Co-ordinates | | True Brg. 282½°M | Logged by P. O'Shea |
| Objective Better core recovery than G.11 in Clarke's Lode | | % Recov. | Date 10/9/1971 |

Claim QUEEN HI | T. Brg. 282½°M. | Collar Dip 59° | Elev. | Length 435' - | Hole No. G.11 WR St | pg 1 of

| Footage From | To | Description Recovery | | Sample No. | Length | Analysis % Sn | Zn | Pb | Cu | Ag |
|---|---|---|---|---|---|---|---|---|---|---|
| 435' | 438'8" | 3" | Black slate pieces: $FeS_2$ specks. Rolled core, poor recovery due to start of wedge run. | 460 - 461 | | L.01 | L.01 | L.01 | L.01 | 3.10 |
| | | | | 461 - 462 | | L.01 | L.01 | L.01 | L.01 | 0.14 |
| 438'8" | 463'9" | 23' | Black Slates, minor grey quartzites: Beds contorted, dip varies between | 462 - 463 | | .02 | L.01 | L.01 | L.01 | 0.18 |
| | | | 50° and 85°, quartzite often as stringers and brecciated fragments 1/16"-½" | 463 - 464 | | .02 | .06 | L.01 | L.01 | 0.04 |
| | | | thick. Occasional less than 1/16"-1/16" thick irregular quartz and siderite | 464 - 465 | | .03 | L.01 | .38 | L.01 | 0.21 |
| | | | veins. 1" thick $FeS_2$ vein, dip 35° at 441'3". ¼" thick $FeS_2$ vein, dip 45° | 465 - 466 | | .01 | 0.05 | 0.32 | L.01 | 0.40 |
| | | | at 452'. 2½" thick banded $FeS_2$, siderite, sphalerite and galena vein, dip | 466 | 467 | .02 | L.01 | .86 | L.01 | 0.55 |
| | | | 60°, at 457'. 3/4" thick quartz-$FeS_2$ vein, dip 63°, at 461'9". Elsewhere | 467 | 468 | .02 | .13 | .10 | L.01 | 0.30 |
| | | | in the core $FeS_2$ present as occasional 1/16" - ¼" thick blebs and irregular | 468 | 469 | .02 | L.01 | L.01 | .02 | 0.27 |
| | | | veins. | 469 | 470 | .22 | L.01 | L.01 | L.01 | 0.27 |
| 463'9" | 466'3" | 3'6" | Black slates, minor grey quartzites: quartzites as 1/16"-2" thick beds and | 470 | 471 | .20 | .14 | .39 | .02 | 0.58 |
| | | | stringers, more abundant than previous 23'. Slate beds highly contorted | 471 | 472 | .08 | .04 | .18 | .02 | 0.24 |
| | | | dip at 65°-90°, 2" thick quartzite bed at 465' dips at 40°. Frequent 1/16"- | 472 | 473 | .18 | .04 | L.01 | .02 | 0.48 |
| | | | ¼" thick quartz and $FeS_2$ veins, dip at 40°-55°. | 473 | 474 | .25 | .04 | L.01 | L.01 | 0.15 |
| 466'3" | 468'3" | 2' | Black Slates with abundant $FeS_2$ veins: slates dip at 60°-85°, $FeS_2$ veins | 474 | 475 | .43 | .02 | L.01 | .01 | 0.70 |
| | | | 1/16"-1" thick, dip at 60°. Quartz and siderite with brecciated slate also | 475 | 476 | .47 | .01 | L.01 | L.01 | 0.15 |
| | | | present. | 476 | 477 | .61 | 0.32 | 5.46 | 0.62 | 4.10 |
| 468'3" | 471' | 2'9" | Interbedded black slates and grey quartzites: beds dip at 45°-60°. Quartzite | 477 | 478 | .62 | 0.12 | 1.03 | 0.44 | 1.75 |
| | | | beds from 469'3" - 470' and from 470'4" are veined with white quartz along | 478 | 479 | 1.33 | .16 | .24 | 1.24 | 5.40 |
| | | | fracture surfaces. $FeS_2$ irregular veins 1/16"-1/8" thick, scattered throughout | 479 | 480 | 3.90 | 0.13 | 0.14 | 3.65 | 9.80 |
| | | | especially in the quartzite beds. | 480 | 481 | .07 | .07 | L.01 | L.01 | 0.20 |
| | | | .../2 | 481 | 482 | .09 | .07 | L.01 | L.01 | 0.30 |

DOCKINGTON PRINT

101

| | | | | | |
|---|---|---|---|---|---|
| Property | QUEEN HILL | District | Hole No. G.11 WEDGE RUN | | |
| Commenced | 8/9/1971 | Location ZEEHAN, TASMANIA | Tests at | Hor. Comp. | 764103 |
| Completed | 10/9/1971 | Core Size "B" | Corr. Dip 59° | Vert. Comp. | |
| Co-ordinates | | | True Brg. 282½°M | Logged by | P. O'Shea |
| Objective | Better core recovery than G.11 in Clarke's Lode | | % Recov. | Date | 10/9/1971 |

| Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No. G.11 W/E St |
|---|---|---|---|---|---|
| | | | | | |

| Footage From | To | Description Recovery | | Sample No. | Length | Analysis % Sn | Zn | Pb | Cu | Ag |
|---|---|---|---|---|---|---|---|---|---|---|
| 471' | 480' | 9' | Quartz-$FeS_2$ lode: Stannite present between 477'6" and 479'6", very minor | 482 – | 483 | ·08 | ·13 | L·01 | ·01 | 0·15 |
| | | | galena. Banding in lode dips at 60° between 471' and 474'6". Banding in | 483 | 484 | ·62 | 0·09 | 0·67 | 0·58 | 0·60 |
| | | | $FeS_2$ and stannite dip between 20° and 30° from 474'6" - 480' (this banding | 484 | 485 | ·17 | 0·05 | 0·25 | 0·07 | 0·65 |
| | | | is cut by quartz veins carrying galena). | 485 | 486 | ·11 | ·01 | L·01 | ·01 | 0·19 |
| 480' | 483' | 3' | Grey Quartzite: abundant irregular quartz and $FeS_2$ veins deposited in | 486 | 487 | ·06 | ·02 | ·08 | L·01 | 0·39 |
| | | | fractures in the quartzite. | 487 | 488 | 4·32 | ·11 | L·01 | ·40 | 0·17 |
| 483' | 485'6" | 2'6" | Quartz-$FeS_2$ lode: banding in lode dips at 55°. Included slate country | 488 | 489 | ·08 | L·01 | L·01 | L·01 | 0·11 |
| | | | rock between 484'6" and 485'6". | 489 | 490 | ·06 | ·02 | L·01 | L·01 | 0·15 |
| 485'6" | 489'9" | 4'3" | Interbedded black slates and grey quartzites: beds highly contorted, dip | 490 | 491 | ·59 | ·01 | L·01 | ·01 | 0·11 |
| | | | varies between 35° and 90°. $FeS_2$ disseminated throughout the beds, also | 491 | 492 | ·23 | 2·25 | 42·8 | 0·09 | 18·6 |
| | | | as 1/16"-¼" thick irregular veins. | 492 | 493 | ·21 | 3·75 | 29·9 | 0·13 | 16·0 |
| 489'9" | 491'6" | 1" | Quartz pebble and three black slate pebbles: VERY Poor recovery due probably | 493 | 494 | 1·34 | 6·90 | 3·90 | 1·00 | 4·05 |
| | | | to soft ground. | 494 | 495 | ·40 | 4·40 | 1·30 | 0·07 | 0·50 |
| 491'6" | 491'10" | 1" | Quartz-$FeS_2$ lode | 495 | 496 | ·25 | ·09 | L·01 | L·01 | 0·48 |
| 491'10" | 493'1" | 1'3" | Quartz-Galena lode: banding in lode dips at 45°, minor siderite present. | 496 | 497 | ·17 | ·27 | ·19 | ·01 | 0·12 |
| 493'1" | 493'6" | 5" | Brecciated lode: brecciated $FeS_2$ and slate fragments in a quartz matrix | 497 | 498 | ·39 | 3·80 | 0·48 | 0·18 | 0·14 |
| | | | with disseminated $FeS_2$ | 498 | 499 | 1·00 | 1·91 | ·21 | ·02 | 0·32 |
| 493'6" | 499'9" | 6'3" | Dark grey-black argillites and quartzites: beds dip at 45°-50°, abundant | 499 | 500 | ·66 | 18·5 | 5·62 | 0·27 | 3·47 |
| | | | 1/16"-1" thick $FeS_2$ veins, same dip as bedding. 1" thick quartz-sphalerite | 500 | 501 | ·49 | ·49 | ·11 | ·03 | 0·72 |
| | | | vein, dip 45°, at 494'10". Irregular 1/16"-1/8" thick siderite-galana veins | 501 | 502 | 1·69 | 0·22 | 0·31 | 0·05 | 0·35 |
| | | | cutting across $FeS_2$ veins at 494'10"-495'. 2" thick quartz siderite-$FeS_2$ | 502 | 503 | 1·83 | 2·97 | 2·89 | 0·07 | 0·48 |
| | | | sphalerite vein, dip 48° at 497'6". .../3 | 503 | 504 | 2·82 | 2·90 | 1·71 | 0·06 | 0·23 |

COCKINGTON PRINT

| | | | | | |
|---|---|---|---|---|---|
| Property QUEEN HILL 102 | District | Hole No. G.11 WEDGE RUN (Contd.) | | 764104 | |
| Commenced | Location | Tests at | Hor. Comp. | | |
| Completed | Core Size | Corr. Dip | Vert. Comp. | | |
| Co-ordinates | | True Brg. | Logged by | | |
| Objective | | % Recov. | Date | | |

| Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No. G.11 WR Sheet |
|---|---|---|---|---|---|
| | | | | | |

| Footage From | To | Description Recovery | | Sample No. | Length | Analysis % Sn | Zn | Pb | Cu | Ag |
|---|---|---|---|---|---|---|---|---|---|---|
| 499'9" | 500'7" | 10" | Quartz-sphalerite-$FeS_2$-siderite lode: no banding evident | 504 - | 505 | .14 | 2.41 | .08 | .01 | 0.26 |
| 500'7" | 517' | 16'5" | Quartz-$FeS_2$ lode: banding in lode dips at 40°-55° (average 45°). Minor | 505 | 506 | .20 | 5.90 | .73 | .04 | 0.40 |
| | | | patches of disseminated sphalerite and siderite. | 506 | 507 | .19 | 1.30 | 3.52 | .09 | 0.65 |
| 517' | 518'3" | 1'3" | Grey Spilite: abundant $FeS_2$ veins and blebs, constituting 50% of the core. | 507 | 508 | 1.24 | .14 | L.01 | .01 | 0.20 |
| 518'3" | 527'4" | 9'1" | Grey spilitic tuff: Occasional 1/8"-1" wide, brecciated pieces of | 508 | 509 | 1.05 | L.01 | L.01 | L.01 | 0.14 |
| | | | amygdaloidal spilite in the tuff matrix. Flow (bedding ?) dips at 65°-80°. | 509 | 510 | 1.46 | .09 | .17 | .01 | 0.33 |
| | | | Occasional irregular less than 1/16" - 1/8" thick, $FeS_2$ veins, also as | 510 | 511 | 2.71 | .12 | L.01 | .01 | 0.40 |
| | | | amygdale infilling, especially between 526' and 527'. | 511 | 512 | 1.96 | .02 | L.01 | L.01 | 0.15 |
| 527'4" | 527'10" | 6" | Quartz $FeS_2$ vein: rare siderite, vein dips at 65° | 512 | 513 | .99 | 1.35 | L.01 | L.01 | 0.20 |
| 527'10" | 551'9" | 23'11" | Grey to dark grey spilitic tuff: mostly a tuffaceous agglomerate with | 513 | 514 | 1.79 | 9.22 | 4.28 | 0.06 | 0.23 |
| | | | predominantly amygdaloidal breccia pieces in a tuff matrix. Flow (bedding ?) | 514 | 515 | 1.65 | 2.85 | 1.08 | 0.04 | 0.07 |
| | | | dips at 60°-85°, average 75°. Occasional irregular 1/16"-1/8" thick $FeS_2$ | 515 | 516 | .34 | 1.37 | .26 | .01 | 0.19 |
| | | | and quartz veins. $FeS_2$ occasionally disseminated in tuff matrix. | 516 | 517 | .33 | .55 | L.01 | .02 | 0.30 |
| 551'9" | 560'1" | 8'4" | Grey spilitic tuff: mostly a tuffaceous agglomerate. Flow (bedding ?) dips | 517 | 518 | .45 | .35 | .04 | .01 | 0.22 |
| | | | at 65°-75°. ¼"-½" thick $FeS_2$-siderite vein, dip 85°, between 551/9" and | 518 | 519 | .49 | .13 | L.01 | .01 | 0.19 |
| | | | 555'10". $FeS_2$ disseminated through the matrix, especially between 555'6" | 519 | 520 | .49 | .14 | L.01 | .01 | 0.15 |
| | | | and 558' | 520 | 521 | .12 | .04 | L.01 | L.01 | 0.05 |
| 560'1" | 617' | 56'11" | Grey spilitic tuff: mostly a tuffaceous agglomerate, agglomerate fragments | 521 | 522 | .07 | .26 | L.01 | L.01 | 0.04 |
| | | | being frequently amygdaloidal. Flow (bedding ?) dips at 70°-85°. Rare $FeS_2$ | 522 | 523 | .06 | .12 | L.01 | L.01 | 0.08 |
| | | | as disseminations in matrix. Occasional irregular 1/16-1/8" thick quartz | 523 | 524 | .09 | .13 | L.01 | L.01 | 0.09 |
| | | | veins. | 524 | 525 | .08 | .04 | L.01 | L.01 | 0.11 |
| | | | END OF HOLE AT 617' | 525 | 526 | .09 | .03 | L.01 | L.01 | 0.05 |
| | | | | 526 - 527 | | .11 | .02 | .34 | L.01 | 0.11 |

COCKBURN PRINT

| | | | | | |
|---|---|---|---|---|---|
| Property QUEEN HILL 103 | District INTERNATIONAL | Hole No. G. 12 | | 72-865 | |
| Commenced | Location ZEEHAN TASMANIA | Tests at | | Hor. Comp. | 764105 |
| Completed | Core Size | Corr. Dip 38° | | Vert. Comp. | |
| Co-ordinates | | True Brg. 282°M | | Logged by D. BROWN | |
| Objective TO INTERSECT PYRITE MINERALIZATION | | % Recov. | | Date | |

| Claim | T. Brg. | Collar Dip | Elev. | Length |
|---|---|---|---|---|
| | | | | |

| Footage From | Footage To | Description | Sample No. | Length | Analysis |
|---|---|---|---|---|---|
| 0' | 10' | Dark grey-black slates with very minor inter-bedded grey quartzite. Beds dip 45°. | | | |
| 10' | 32' | Dark grey-black slates with minor inter-bedded light grey to grey quartzites. Contorted in places. Beds dip between 45° and 60°. | | | |
| 32' | 36' | Light grey quartzite, finely laminated in places. Medium grained. A few irregular quartz veins up to 3/8" wide, irregular joints. | | | |
| 36' | 39' | Light grey quartzite with inter-bedded grey to black slate. Core strongly contorted and finely laminated. Fine $FeS_2$ disseminated with some quartzite bands, up to 1" thick and dipping at 65°. | | | |
| 39' | 84' | Grey-black slates, light grey quartzites and strongly fractured and brecciated quartzite with slates. For most part, highly contorted, where not dips average 55°-65°. Irregular thin 1/16"-3/8" quartz and siderite veins throughout. pyrite and siderite veins at 46'10", ¼" wide over 1", dip 70°. Very sparse irregular $FeS_2$ blebs. Pyrite vein at 75' dips 30°, ¼" thick. | | | |
| 84' | 104' | Dark grey-black slate with finely inter-bedded and laminated light grey to grey quartzite. Highly contorted for most part. Where reasonable, bedding between 60°-75°. Minor irregular quartz and siderite veins up to ¼". At 84'3", siderite and pyrite vein ¼". At 84'3", siderite and pyrite vein ¼" thick dips 40°. Occasional $FeS_2$ veins (up to 1/8") and blebs. | | | |
| 104' | 113'9" | Dark grey-black slate with very minor inter-bedded grey quartzite. Average dip slate 60°-70°. Grey quartzite 106'9" - 1072'2". Quartz veins, 106'7" - 106'9" dip 40°. Pyrite vein ⅛"-3/8" thick at 113'8" dips 80°. | | | |

COCKINGTON PRINT

| | | | | | |
|---|---|---|---|---|---|
| Property QUEEN HILL 104 | District INTERNATIONAL | Hole No. G, 12 | | | |
| Commenced | Location | Tests at | Hor. Comp. 764106 | | |
| Completed | Core Size | Corr. Dip 38° | Vert. Comp. | | |
| Co-ordinates | | True Brg. 282°M | Logged by D. BROWN | | |
| Objective TO INTERSECT PYRITE MINERALIZATION | | % Recov. | Date | | |

| Footage From | To | Description | Sample No. | Length | Claim | T. Brg. | Collar Dip | Elev. | Length |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Analysis | | | | |
| 113'9" | 130'6" | Dark grey-black slate with inter-bedded and laminated grey quartzite. Highly contorted in places, minor brecciation of quartzite present spasmodically. Irregular and moderately numerous quartz and siderite veins up to ½" thick. Where not contorted, bedding between 60°-75°. Thin pyrite veining (1/16") at 129'2". Broken core 125½' - 130½'. | | | | | | | |
| 130'6" | 136'3" | Light grey to grey quartzite with inter-bedded dark grey slate. Highly laminated and contorted in most places. Where not contorted, beds dip 45°. | | | | | | | |
| 136'3" | 149' | Black slate and light grey to grey quartzite, becoming minor. Laminated and contorted. Irregular veins of quartz and siderite, sometimes accompanying small veins of $FeS_2$, becoming numerous. Occasional veins of $FeS_2$ (1/16"). Bedding at 147'9" 75°. Fault (1½") 137', with graphite on slickensided surfaces, dip 55°. | | | | | | | |
| 149' | 150' | Strong $FeS_2$ vein mineralization within black slate. Approximate dip of veins, 40°. Quartz associated with sulphide. | | | | | | | |
| 150' | 155' | Black slate with minor grey quartzite, stringers. Laminated in places, highly contorted. Abundant irregular, small quartz veins up to ¼" thick with black slate. Pyrite vein 156'2", 3/8" dips 20°. Very minor patches of disseminated $FeS_2$ in joints and slate. | | | | | | | |
| 155' | 158' | Fault zone. Soft black slate and black pug. Graphite flakes and slickensides. Quartz veining within slate. | | | | | | | |
| 158' | 179' | Grey to black slate and light grey quartzite. Inter-bedded, laminated, highly contorted, in places brecciated. Soft, friable in numerous places - strongly faulted in places. Numerous irregular quartz veins, frequently associated with $FeS_2$. Patchy to sparse, $FeS_2$ mineralization throughout. Green material with 1/8" quartz vein at 163'3". | | | | | | | |

COCKINGTON PRINT

| | | | |
|---|---|---|---|
| Property QUEEN HILL 105 | District INTERNATIONAL | Hole No. G. 12 | |
| Commenced | Location ZEEHAN, TASMANIA | Tests at | Hor. Comp. 764107 |
| Completed | Core Size | Corr. Dip 38° | Vert. Comp. |
| Co-ordinates | | True Brg. 282°M | Logged by D. BROWN |
| Objective TO INTERSECT PYRITE MINERALIZATION | | % Recov. | Date |

| Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No. |
|---|---|---|---|---|---|
| | | | | | |

| Footage From | Footage To | Description | Sample No. | Length | Analysis |
|---|---|---|---|---|---|
| | | Veins contain fine pyrite most intense between 164'4" - 165'10" - with soft, friable slate. Pyrite veins at 162'9", 1/8" wide associated with quartz dip at 60°, at 175'5", 3" $FeS_2$ dip 50°. | | | |
| 179' | 190'6" | Dark grey to black slate with minor grey quartzite as laminations and stringers. Irregular quartz veins up to ¼". Contorted except near 190', where beds dip at 55°. | | | |
| 190'6" | 198' | Dark grey to black slate with very minor to minor inter-bedded quartzite, average dip 65°. | | | |
| 198' | 244' | Dark grey to black slate with minor inter-bedded and laminated grey quartzite. Stongly contorted in places. Pyrite vein ½-3/4" at 206'10", dips 40°. Quartzite brecciated in places. 234'10" quartz vein, 3/8" dips 60°. | | | |
| 244' | 247' | Black slate, soft, friable. | | | |
| 247' | 299' | Grey to black slate with inter-bedded and laminated light grey to grey quartzite. Contorted throughout, brecciated in places. Where measurable, bedding dips at 50°. Quartz vein at 273' associated with siderite. | | | |
| 299' | 306'7" | Black slate with inter-bedded grey quartzite Contorted and slightly brecciated in places. Numerous irregular veins of quartz, siderite and $FeS_2$, up to ¼" thick. At 301'6", pyrite 3/4" thick dips 60°. $FeS_2$ veins more numerous within quartzite. Between 305'9" - 306'6", pyrite veining strong, dipping 45°. | | | |
| 306'7" | 317'10" | Black slate with minor inter-bedded and laminated grey quartzite. Contorted. Irregular, moderately numerous veins of quartz and siderite up to 1/8" thick. Vein ½" thick at 308'6" of siderite and pyrite dipping 65°. $FeS_2$ veining ½" wide at 314'6" dipping 70°. | | | |

COCKINGTON PRINT

| | | | |
|---|---|---|---|
| Property QUEEN HILL 106 | District INTERNATIONAL | Hole No. G. 12 | |
| Commenced | Location ZEEHAN, TASMANIA | Tests at | Hor. Comp. 764108 |
| Completed | Core Size | Corr. Dip 38° | Vert. Comp. |
| Co-ordinates | | True Brg. 282°M | Logged by D. BROWN |
| Objective TO INTERSECT PYRITE MINERALIZATION | | % Recov. | Date |

| Footage From | Footage To | Description | Sample No. | Length | Analysis | Claim | T. Brg. | Collar Dip | Elev. | Length |
|---|---|---|---|---|---|---|---|---|---|---|
| 317'10" | 319'2" | Grey quartzite, slightly brecciated, with intercies of breccia, filled with black slate. Numerous quartz veins up to ½" thick. | | | | | | | | |
| 319'2" | 348'7" | Black slate with inter-bedded grey quartzite in places 1' thick beds but usually as thin contorted or brecciated beds and laminations. Sparse irregular quartz and siderite veins up to ¼" thick. At 327'6", ¼" siderite vein dips at 80°. | | | | | | | | |
| 348'7" | 361' | Grey to black slate, irregular sparse thin (up to 1/8" thick) quartz & siderite veins. | | | | | | | | |
| 361' | 377' | Dark grey-black slate with minor inter-bedded and laminated grey quartzites. Strongly contorted. Numerous irregular veins of quartz and siderite, with minor $FeS_2$, up to 1/8" thick. Minor $FeS_2$ blebs up to ¼" in diameter. Quartz vein at 375'. 3/4" thick dips at 70°, and at 376'6", 5/8" thick dips at 35°. Small fault at 375'7" dips at 75°. | | | | | | | | |
| 377' | 378' | Grey quartzite with pyrite veining. At 377'6" vein 5/8" thick dips 50°. | | | | | | | | |
| 378' | 435'6" | Dark grey black slate with interbedded to minor inter-bedded grey quartzite, laminated in places. Contorted and brecciated in places. Numerous irregular quartz and siderite veins up to 3/8" thick. Fine $FeS_2$ veins in spasmodic sections. At 403'6", beds dip 40°. Pyrite veins at: 405', ½" thick, dip 50°, 408', 1" thick dip 30°, 415'9", ½" thick dip 85°, 417'6" -418'2", Strong pyrite veining, nearly massive, dips 75°, 399' - 399'4", Pyrite veins ¼" to ½" thick, dip 70°, 430'8" - 431'6", pyrite veins, up to 5" thick, dip 35°. | | | | | | | | |
| 435'6" | 476' | Dark grey-black slate with minor to very minor inter-bedded, quartzite. Laminated and weakly contorted in places. At 445' bedding dips 50°, at 458', bedding dips 50°. Irregular quartz and siderite veins scattered throughout, generally concordant with bedding. At 459'4" - 459'8", $FeS_2$ veining and blebs. 462'2", pyrite vein ¼" thick dip 75°, at 463'3", pyrite veining for 2" at 464'6", pyrite vein ¼" to 3/8" wide dips 60°. | | | | | | | | |

COCKINGTON PRINT

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|---|---|---|---|
| Property QUEEN HILL 107 | District INTERNATIONAL | Hole No G. 12 | |
| Commenced | Location ZEEHAN, TASMANIA | Tests at | Hor. Comp. 764'09 |
| Completed | Core Size | Corr. Dip 38° | Vert. Comp. |
| Co-ordinates | | True Brg. 282°M | Logged by D. BROWN |
| Objective TO INTERSECT PYRITE MINERALIZATION | | % Recov. | Date |

Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No.

| Footage From | To | Description | Sample No. | Length | Analysis |
|---|---|---|---|---|---|
| | | Small $FeS_2$ veins increasing in intensity. Massive pyrite, 460'5" - 461' dipping at 50°, 474'6", pyrite veins 3/8" thick over 2" dip 80°. | | | |
| 476' | 477'10" | Light grey quartzite, with irregular quartz veins up to 1/8" thick. Fine pyrite in some quartz veins. | | | |
| 477'10" | 499'2" | Black slate with very minor quartzite laminations and stringers. Very broken and friable up to 487'. Possible fault zone - slickensideing and graphite visible on broken interfaces. Very irregular and numerous quartz veins with associated fine pyrite. After 487', quartz veining very pronounced, becoming very intense. Disseminated $FeS_2$ content of core increasing with depth. 479'6" - 479'9" Pyrite with minor siderite dipping 60°. | | | |
| 499'2" | 510' | Dark grey-black slate with very minor inter-bedded quartzite. Slightly contorted in places. Very fine disseminated $FeS_2$ throughout - more noticeable within quartzite. Few irregular quartz and pyrite veins up to 1/8" thick 504'6" - 505', massive pyrite dipping 70°. | | | |
| 510' | 533'9" | Dark grey slate with inter-bedded light grey to grey quartzite laminated and contorted in places. Dip 60° at 519'. Irregular and very numerous in places, quartz veins. Quartz veining becoming intense with depth. $FeS_2$ associated with the quartz veins in places. At 530'4", pyrite veins (½") dip 60°. Minor siderite veins. 537'9" -538'1" - pyrite veins up to 3/4" dipping approx. 45°, 542'6" - 542'8½" pyrite veining, intense. Possible small fault zone 551'9" - 553'9". Core broken - slight slickensiding. | | | |
| 553'9" | 558' | Sulphide mineralization. Massive and intense veins of sulphide, associated with quartz and minor siderite with black slate and inter-bedded grey quartzite. | | | |

COCKINGTON PRINT

Property QUEEN HILL 103 | District INTERNATIONAL | Hole No. G. 12

Commenced | Location ZEEHAN, TASMANIA | Tests at | Hor. Comp. 764110

Completed | Core Size | Corr. Dip 38° | Vert. Comp.

Co-ordinates | True Brg. 282°M | Logged by D. BROWN

Objective TO INTERSECT PYRITE MINERALIZATION | % Recov. | Date

Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No.

| Footage From | Footage To | Description | Sample No. | Length | Analysis Sn | Cu | Ag | Pb |
|---|---|---|---|---|---|---|---|---|
| 558' | 560' | Black slate with sulphide veins up to 1/8" wide associated with quartz. Shows slickensiding in numerous places. | 555 - 556 | | 1.19 | 0.04 | | |
| 560' | 577' | Predominate sulphide vein mineralization, associated with quartz and minor siderite and galena within a black slate with minor grey quartzite host rock. 3/8" galena veins 574-574'3". Sulphide pyrite massive 567'6" - 568, 569'5"-570'3", 571'6"-573'6" (pyrite friable in places). | 563 - 564 | | 2.18 | 0.04 | | |
| | | | 567 - 568 | | 0.59 | 0.27 | 1.55 | 4.81 |
| | | | 569 - 570 | | | 0.14 | | |
| 577' | 583'8" | Dark grey to black slate with minor sulphide mineralization as strong veining between 579'7" - 580'1". Very minor, finely disseminated $FeS_2$ throughout core. Slate very broken - slow slickensiding and graphite on numerous surfaces. | 580 - 585 | | 1.59 | 0.02 | | |
| 583'8" | 588' | Sulphide mineralization as intense veining, associated with quartz and siderite within a dark grey-black slate with inter-bedded grey quartzites. | 580 - 602 | | 1.02 | | | |
| 588' | 592'6" | Black slates with sulphide veining up to 1" thick. Fine disseminated $FeS_2$ within slate. Core broken and fractured. | | | | | | |
| 592'6" | 647'6" | Sulphide mineralization, massive to extremely strongly veined pyrite with very minor associated quartz within a slate-quartzite host rock. Sulphide - pyrite, which becomes finely crystalline from 621' on. The mineralization shows a bedding characteristic from 621' on as though it had been precipitated in or replaced certain beds of host rock rather than others. This bedding has a general inclination of between 80° and 90°. | 611 - 659 | | 1.59 | | | |
| 647'6" | 666'7" | Fine grained sulphide mineralization. Sulphide appears as "beds" within and disseminated through a hard well bedded slate?. The sulphide can, for the most part, be seen only with a hand lense. The "bedding" of sulphide is almost that with the core, with dips ranging from 75° - 90°. | | | | | | |

COCKINGTON PRINT

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|---|---|---|---|---|---|
| Property QUEEN HILL | District INTERNATIONAL | Hole No. G. 12 | | | |
| Commenced | Location ZEEHAN. TASMANIA | Tests at | | Hor. Comp. | 764111 |
| Completed | Core Size | Corr. Dip 38° | | Vert. Comp. | |
| Co-ordinates | | True Brg. 282°M | | Logged by D. BROWN | |
| Objective TO INTERSECT PYRITE MINERALIZATION | | % Recov. | | Date | |

| Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No. |
|---|---|---|---|---|---|
| | | | | | |

| Footage From | To | Description | Sample No. | Length | Analysis Sn |
|---|---|---|---|---|---|
| 666'7" | 679'10" | Hard, light grey to dark grey slate?, very silicious in places - chert-like. Shows fine bedding, which dips between 70° - 80°, average 75°. Thin $FeS_2$ beds? up to ¼" thick, in places. 678'6" - 679'3" - Interbedded coarse sandstone? with grains of slate: dips 80°. $FeS_2$ inter-bedded spasmodically throughout, up to ¼" thick. Disseminated $FeS_2$ and as blebs up to 3/8" dia., and thin "beds" between 676' - 678'6". | | | |
| 679'10" | 689'6" | Dark green-grey very hard silicious slate. Trace of bedding. Disseminated $FeS_2$ as fine crystals to irregular blebs up to ¼" in dia. Inter-bedded sulphides: up to 1/8" thick "beds" dip 85°. Fragments of quartzite appearing at end. | | | |
| 689'6" | 701'9" | Hard, dark grey slate with minor inter-bedded grey quartzite. Bedding and laminations very fine, with an average dip of approx. 80°. Minor irregular and "bedded" sulphide veins up to 1/8" thick, the irregular veins associated with quartz. | | | |
| 701'9" | 705'8" | Light grey quartzite with thinly inter-bedded black slate. Brecciated, sulphide veining within brecciation between 702'3" - 703'5", veins up to 1" thick, other small (up to 1/8") sulphide and quartz veins irregularly through rock. | | | |
| 705'8" | 717'9" | Black-dark green hard silicious slate, chert-like in places. Sparse pyrite "veins" held to bedding, dip 80° -90°. Also irregular and "bedded" veins containing quartz, pyrite and siderite up to 1/8" thick. | | | |
| 717'9" | 738'8" | Grey to dark grey quartzite, with minor interbedded laminated slate. Numerous irregular quartz, siderite and pyrite veins up to ½" thick. Disseminated and vein sulphide throughout. Very strongly veined in places. At 727'6", slate dips 60°. Siderite vein at 731', ½" wide dips 65°. | 718-739 | | 1.79 |

110

| | | | |
|---|---|---|---|
| Property QUEEN HILL | District INTERNATIONAL | Hole No. G. 12 | |
| Commenced | Location ZEEHAN, TASMANIA | Tests at | Hor. Comp. 764'12 |
| Completed | Core Size | Corr. Dip 38° | Vert. Comp. |
| Co-ordinates | | True Brg. 282°M | Logged by D. BROWN |
| Objective TO INTERSECT PYRITE MINERALIZATION | | % Recov. | Date |

Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No.

| Footage From | Footage To | Description | Sample No. | Length | Analysis |
|---|---|---|---|---|---|
| 238'8" | 764'9" | Dark grey-black slate with very minor laminations of grey quartzite up to 1/8" thick. Slightly contorted in places. Bedding dip at an average of 70°. Very finely disseminated pyrite throughout core, decreasing in intensity up till 764'9". Numerous blebs of pyrite up to 1" dia. Sparsely throughout. Irregular, numerous in places, siderite, pyrite and quartz veins. Siderite veins at 746'10" - 747'3" dip 80°, at 751'10" - 752'3", dip 70°. | | | |
| 764'9" | 770'11" | Light grey quartzite with minor inter-bedded slate between 770'7" - 770'10". Irregular quartz veins up to 1/8" thick. | | | |
| 770'11" | 809'4" | Light greeny-yellow to dark grey spilite, amygdaloidal and tuffaceous in parts. Brecciated zones with a light grey cherty matrix between 774'1" - 779', and 801'8" - 809'4", cherty material predominating 801'8" - 809'4". Very fine pyrite blebs spasmodically throughout, with dia. up to ½". Hard irregular spasmodic veins of a white material probably calcite throughout. At 787'10", a vein of this material 3/8" wide dips 80°. | | | |
| 809'4" | 837'9" | Greeny-yellow to dark grey spilite, amygdaloidal and tuffaceous in places. Minor brecciated zone with light grey cherty matrix between 831'1" - 832'3" with spilite fragments up to 2" in dia. Very minor disseminated pyrite, occasionally as blebs up to 1" diameter and 2" at 830'. Pyrite most noticable between 828' - 837'9". | | | |
| 837'9" | 848' | Light grey fine grained quartzite with minor, dark fine grained rock, inter-bedded and as large stringers. Numerous, but spasmodic quartz veins, which appear to have the same approximate dip of 40° at 843'. Very minor pyrite mineralization in some quartz veins and blebs of pyrite up to ½" dia. | | | |

COCKINGTON PRINT

Property QUEEN HILL 111 | District INTERNATIONAL | Hole No. G. 12

Commenced | Location ZEEHAN, TASMANIA | Tests at | Hor. Comp. 264113

Completed | Core Size | Corr. Dip 38° | Vert. Comp.

Co-ordinates | True Brg. 282°M | Logged by D. BROWN

Objective TO INTERSECT PYRITE MINERALIZATION | % Recov. | Date

Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No.

| Footage From | Footage To | Description | Sample No. | Length | Analysis |
|---|---|---|---|---|---|
| 848' | 870'6" | Pale grey to slight yellow-greeny grey spilite. Amygdaloidal, with breccia between 867' - 868'6" - 870'6" with a light grey matrix. Disseminated pyrite in places, usually associated with blebs of pyrite up to 1" thick and 2" long. Spilite soft, friable between 853'6" - 858'6". | | | |

TOPARI SURVEY RESULTS

| Depth | Inclination | Bearing |
|---|---|---|
| Collar | 83° | 282° |
| 200' | 81° | |
| 300' | 76° | 294° |
| 400' | 75° | 297° |
| 600' | 71° | 297° |
| 800' | 72° | |

212

| | | | | | |
|---|---|---|---|---|---|
| Property | QUEEN HILL | 764114 District | Hole No. | G.13 | 72-865 |
| Commenced | 11/9/1971 | Location ZEEH[illegible], TASMANIA | Tests at | [illegible] | Hor. Comp. |
| Completed | 20/9/1971 | Core Size "N" | Corr. Dip | 59° | Vert. Comp. |
| Co-ordinates | | | True Brg. | 282°M | Logged by P. O'Shea |
| Objective | | | % Recov. | | Date 12/9/71 - 20/9/1971 |

| Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No. |
|---|---|---|---|---|---|
| QUEEN H | 282° M | 59° | | 790 ft | G 13 |

| Footage From | Footage To | Recovery | Description | Sample No. | Length | Analysis % Cu | Zn | Pb | Sn | Ag |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 33 - 34 | | .04 | .26 | .05 | .10 | 0.07 |
| 0' | 31'9" | 20' | Interbedded dark grey-black slates and grey quartzites: quartzite beds are | 34 | 35 | <.01 | .22 | .11 | .12 | 0.17 |
| | | | fine grained, broken due to folding. Beds contorted, dip at 65°-85°. Slates | 35 | 36 | <.01 | <.01 | <.01 | .11 | 0.04 |
| | | | are slightly graphitic. ¼" $FeS_2$ and clay pug on 50° dipping fault plane | 36 | 37 | .01 | .32 | .14 | .20 | 0.07 |
| | | | 16'9" and on 60° dipping fault plane at 17'. Irregular 1/16"-⅛" thick | 37 | 38 | .03 | 2.61 | 0.58 | 0.27 | 0.12 |
| | | | quartz veins and stringers scattered throughout. | 38 | 39 | .05 | 2.44 | 0.17 | .15 | 0.08 |
| 31'9" | 33'9" | 1'9" | Faulted black slate and grey quartzite: Irregular white quartz veins and | 39 | 40 | <.01 | .22 | .12 | .07 | 0.16 |
| | | | blebs, and $FeS_2$ disseminated throughout. Fault plane at 31'9" dips at | 146 | 147 | .03 | 0.08 | 15.0 | .23 | 7.80 |
| | | | 50°, slickensides in quartz at 32'6" dip at 50°-75°. | 147 | 148 | .05 | 0.01 | 4.83 | .25 | 0.09 |
| 33'9" | 35'6" | 1'9" | Interbedded black slates and grey fine grained quartzites: beds dip at | 148 | 149 | .08 | 0.05 | 9.73 | 0.43 | 0.66 |
| | | | 35°-50°, quartzites beds often brecciated. Slates graphitic. Irregular | 149 | 150 | .05 | .05 | .11 | .09 | 0.10 |
| | | | 1/16"-1/8" thick quartz and $FeS_2$ veins and blebs scattered throughout. | 243 | 244 | <.01 | <.01 | <.01 | .05 | 0.07 |
| 35'6" | 36'7" | 1'1" | Grey Quartzite: fine-medium grained, very minor black slate. Beds dip | 244 | 245 | <.01 | <.01 | <.01 | .05 | 0.05 |
| | | | at 45°. Irregular 1/16"-1/4" thick quartz and $FeS_2$ veins throughout. | 245 | 246 | <.01 | <.01 | .01 | .11 | 0.05 |
| 36'7" | 38'4" | 1'9" | Quartz-$FeS_2$ lode: Minor galena and sphalerite. Lode very brecciated | 249 | 250 | <.01 | <.01 | .04 | .09 | 0.08 |
| | | | with included slate and quartzite from 36'7"-37'7". Banding in lode at | 250 | 251 | .02 | .02 | .10 | .09 | 0.05 |
| | | | 38' dips at 35°. | 251 | 252 | .04 | .04 | <.01 | .04 | 0.08 |
| 38'4" | 45'9" | 7' | Interbedded black slates and grey quartzites: beds highly contorted, dip | 252 | 253 | <.01 | <.01 | <.01 | .04 | 0.04 |
| | | | at 20°-75°. Quartzite bands often brecciated. $FeS_2$ as irregular 1/16" | 413 | 414 | <.01 | <.01 | <.01 | .06 | 0.05 |
| | | | ½" thick veins, mainly between 38'4" and 40'. Slates very graphitic | 414 | 415 | <.01 | <.01 | <.01 | .06 | 0.12 |
| | | | between 44' and 45'9". | 415 | 416 | <.01 | <.01 | .01 | .08 | 0.12 |
| | | | /2 | 416 | 417 | <.01 | <.01 | .02 | .06 | 0.0 |

COCKINGTON PRINT

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Property | QUEEN HILL 113 | District | | Hole No. | G.13 (Cont'd) | | | | | | | | |
| Commenced | 11/9/71 | Location | ZEEHAN, TASMANIA | Tests at | | Hor. Comp. | 264115 | | | | | | |
| Completed | 20/9/71 | Core Size | "N" | Corr. Dip | 59° | Vert. Comp. | | | | | | | |
| Co-ordinates | | | | True Brg. | 282°M | Logged by | P. O'Shea | | | | | | |
| Objective | | | | % Recov. | | Date | 12/9/71 - 20/9/71 | | | | | | |

| Footage From | To | Description Recovery | | Sample No. | Length | Analysis c/o Cu | Zn | Pb | Sn | Ag |
|---|---|---|---|---|---|---|---|---|---|---|
| 45'9" | 46'9" | 9" | Black fault pug: soft graphitic highly sheared slate, $FeS_2$ disseminated | 417 | 418 | <.01 | <.01 | .01 | .06 | 0.04 |
| | | | throughout. | 418 | 419 | <.01 | <.01 | .08 | .12 | 0.04 |
| 46'9" | 60'3" | 13'3" | Interbedded dark grey-black slates and grey quartzites: quartzite beds | 419 | 420 | <.01 | <.01 | .07 | .09 | 012 |
| | | | massive from 52'3" - 54'6". Slate beds frequently graphitic. Beds dip | 420 | 421 | <.01 | <.01 | .04 | .07 | 0.05 |
| | | | at 45°-55°.from 46'9"-55', highly contorted from 55'-60'3". Quartzite beds | 421 | 422 | <.01 | <.01 | .02 | .16 | 0.05 |
| | | | often brecciated. | | | | | | | |
| 60'3" | 61' | 7" | Black graphitic slate:highly sheared fault zone. | 642 | 643 | <.01 | .16 | .06 | .06 | 0.05 |
| 61' | 76'9" | 13'6" | Black graphitic slates, minor grey quartzites: beds dip at 40°-65°, | 643 | 644 | <.01 | <.01 | .04 | .06 | 0.08 |
| | | | quartzite beds broken in places. Occasional 1/16"-¼" thick irregular | 644 | 645 | <.01 | .05 | .02 | .09 | 0.12 |
| | | | quartz and siderite veins. 1" thick quartz-$FeS_2$ vein, dip 75° at 69'. | 645 | 646 | <.01 | .25 | .03 | .09 | 0.13 |
| | | | Rare irregular $FeS_2$ veins. | 646 | 647 | .09 | .06 | .07 | 1.45 | 0.09 |
| 76'9" | 109' | 32'3" | Interbedded dark grey-black slates and grey quartzites: beds contorted, | 647 | 648 | <.01 | .02 | .07 | 3.11 | 0.26 |
| | | | dip at 20°-80°, quartzite beds often brecciated due to folding and shearing | 648 | 649 | <.01 | <.01 | .04 | 2.61 | 0.15 |
| | | | forces. Occasional irregular 1/16"-1/8" thick quartz and siderite veins | 649 | 650 | .02 | <.01 | <.01 | 2.72 | 0.11 |
| | | | ½" thick $FeS_2$-siderite vein, dip 50°, at 88'6". ¼" thick $FeS_2$-siderite | 650 | 651 | <.01 | <.01 | .03 | 0.91 | 0.10 |
| | | | vein, dip 50° at 106'5". | 651 | 652 | <.01 | <.01 | .02 | 4.42 | 0.10 |
| 109' | 128' | 19' | Black slates, minor grey quartzites: beds dip at 40°-50°, quartsites occur | 652 | 653 | .04 | 1.71 | 1.30 | 0.49 | 0.09 |
| | | | mainly as highly brecciated beds. Quartzite fragments are frequently | 653 | 654 | <.01 | .76 | .12 | .18 | 0.11 |
| | | | replaced by $FeS_2$ which may be syngenetic. Occasional irregular quartz | 654 | 655 | <.01 | .10 | .17 | .07 | 0.12 |
| | | | and siderite veins less than 1/16" thick. | 655 | 656 | <.01 | .59 | .43 | .14 | 0.13 |
| 128' | 142' | 14' | Interbedded dark grey-black slates and grey quartzites: beds dip at 50°-85° | 656 | 657 | <.01 | .56 | .63 | .16 | 0.05 |
| | | | average of 55°. Quartzite beds frequently brecciated. Rare 1/16"-1/8" | 657 | 658 | <.01 | .15 | .06 | .10 | 0.13 |
| | | | thick irregular quartz and $FeS_2$ veins and blebs. | 658 | 659 | <.01 | .10 | .07 | .06 | 0.09 |

Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No. G.13 Shee

COCKINGTON PRINT

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|---|---|---|---|---|---|
| Property | QUEEN HILL 114 | District | Hole No. | G.13 (Cont'd) | |
| Commenced | | Location ZEEHAN, TASMANIA | Tests at | Hor. Comp. | 764116 |
| Completed | | Core Size "N" to 120' then | Corr. Dip | Vert. Comp. | |
| Co-ordinates | | reduced to "B" | True Brg. | Logged by | |
| Objective | | | % Recov. | Date | |

| Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No. G.13 Sh |
|---|---|---|---|---|---|
| | | | | | |

| Footage From | Footage To | Description Recovery | | Sample No. | Length | Analysis % Cu | Zn | Pb | Sn | Ag |
|---|---|---|---|---|---|---|---|---|---|---|
| 142' | 149' | 7' | Interbedded black slates and grey quartzites with abundant $FeS_2$ veining: | 659 | 660 | <.01 | .88 | .49 | .11 | 0.09 |
| | | | bedding, dips at 45°-55°. $FeS_2$ veins 1/16"-1" thick, either irregular | 660 | 661 | <.01 | .84 | .71 | .13 | 0.09 |
| | | | or planar- same dip as bedding. 1" thick $FeS_2$ vein, dip 55° at 142'. | 661 | 662 | <.01 | .77 | .44 | .13 | 0.10 |
| | | | 1/8" thick galena vein, dip 60° at 148'. 1½" thick galena vein followed | 662 | 663 | <.01 | .56 | .23 | .08 | 0.14 |
| | | | by 1½" thick $FeS_2$ vein, both dip 40° at 148'5". | 663 | 664 | .02 | .59 | .25 | .11 | 0.10 |
| 149' | 196'9" | 47'3" | Interbedded dark grey-black slates and grey quartzites: beds contorted | 664 | 665 | <.01 | .45 | .47 | .13 | 0.09 |
| | | | dips vary between 25° and 85°. Quartzite beds occasionally highly | 665 | 666 | <.01 | .06 | .07 | .16 | 0.11 |
| | | | brecciated, sometimes pyritic (syngenetic ?) 3/4" thick $FeS_2$-siderite veins | 666 | 667 | <.01 | .19 | .14 | .11 | 0.15 |
| | | | dip 50°, at 166'8", 167'5" and 167'8". ¼" thick quartz vein, dip 35°, at | 667 | 668 | <.01 | .16 | .02 | .10 | 0.14 |
| | | | 170'10". $FeS_2$ elsewhere as rare 1/16" thick veins, generally following | 675 | 676 | <.01 | .01 | .03 | .11 | 0.07 |
| | | | bedding. 1" of $FeS_2$ siderite veining in slates, dip 50°, at 180'. ½" | 676 | 677 | <.01 | .15 | .04 | .16 | 0.13 |
| | | | thick quartz $FeS_2$ vein, dip 70° at 184'. 45° dip fault with ¼" pug and | 677 | 678 | <.01 | .01 | .04 | .10 | 0.11 |
| | | | $FeS_2$ at 194'. | 678 | 679 | <.01 | .03 | .01 | .12 | 0.09 |
| 196'9" | 207' | 10'3" | Black slates, minor grey quartzites, abundant $FeS_2$ and quartz veining: | 679 | 680 | <.01 | <.01 | .01 | .09 | 0.18 |
| | | | veins 1/16"-1" thick, irregular or planar, same dip as bedding (25°-75°, | 680 | 681 | <.01 | <.01 | <.01 | .06 | 0.12 |
| | | | average 55°). | 681 | 682 | <.01 | <.01 | .04 | .06 | 0.08 |
| 207' | 245'4" | 37' | Dark grey-black slates and interbedded grey quartzites: beds highly | 682 | 683 | <.01 | <.01 | <.01 | .04 | 0.04 |
| | | | contorted, dip varies between 10° and 85°. Quartzite beds frequently | 683 | 684 | <.01 | <.01 | <.01 | .09 | 0.02 |
| | | | brecciated to give a breccia of angular quartzite fragments in sheared | 684 | 685 | <.01 | <.01 | <.01 | .12 | 0.05 |
| | | | black slate matrix. White quartz slickensides, 1/8" thick, dip at 75° | | | | | | | |
| | | | at 217'. Occasional irregular 1/16"-1/8" quartz veins. | | | | | | | |

/4

COCHINGTON PRINT

| | | | |
|---|---|---|---|
| Property QUEEN HILL 115 | District | Hole No. G.13 (Cont'd) | |
| Commenced | Location | Tests at | Hor. Comp. 764117 |
| Completed | Core Size | Corr. Dip | Vert. Comp. |
| Co-ordinates | | True Brg. | Logged by |
| Objective | | % Recov. | Date |

| Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No. G.13 Sh |
|---|---|---|---|---|---|
| | | | | | |

| Footage From | To | Description Recovery | | Sample No. | Length | Analysis |
|---|---|---|---|---|---|---|
| 252'4" | 252'6" | 3' | Quartz-$FeS_2$ lode: white quartz, $FeS_2$ disseminated throughout. Patches of included black slate. Lode appears to have been emplaced along bedding planes. | | | |
| 252'6" | 267'6" | 5' | Black slates, minor grey quartzites: irregular 1/16"-¼" thick white quartz veins scattered throughout. Bedding highly contorted. Recovery very poor. | | | |
| 267'6" | 304'6" | 33' | Black slates, minor grey quartzites: beds highly contorted, dips vary between 20° and 85°. Quartzite beds frequently brecciated. Occasional irregular 1/16"-¼" thick quartz and siderite blebs and veins. 4" thick soft clay fault pug at 303'. ½" thick $FeS_2$ vein, dip 55°, at 284'. ½" thick $FeS_2$ vein, dip 45°, at 302'9". | | | |
| 304'6" | 356'5" | 51'6" | Interbedded black slates and grey fine-medium grained Quartzite: beds contorted, dip varies between 20° and 90°, quartzite beds occasionally brecciated. Bedding plane joints developed in 45°-60° dipping beds. 3/4" thick $FeS_2$ sphalerite vein, dip 50° at 305'. ½" thick quartz-$FeS_2$ vein, dip 60°, at 310'. 1¼" thick quartz-siderite vein, dip 55°, at 335'10". 1" thick quartz-$FeS_2$ veining, dip 70°, at 317'3". ¼" thick $FeS_2$-siderite veins, dip 55° at 348' and 352'. | | | |
| 356'5" | 357' | 7" | $FeS_2$-siderite vein: minor galena vein 3" thick, dips at 70°. Some included slate. | | | |
| 357' | 387'6" | 29' | Interbedded dark grey-black slates and grey quartzites: beds dip predominantly between 50° and 75°, quartzite beds generally broken up. Occasional /5 | | | |

116

| Property | QUEEN HILL | District | | Hole No. | G.13 (Cont'd) | | |
|---|---|---|---|---|---|---|---|
| Commenced | | Location | ZEEHAN, TASMANIA | Tests at | | Hor. Comp. | 764118 |
| Completed | | Core Size | | Corr. Dip | | Vert. Comp. | |
| Co-ordinates | | | | True Brg. | | Logged by | |
| Objective | | | | % Recov. | | Date | |

| Footage From | To | Description Recovery | | Sample No. | Length |
|---|---|---|---|---|---|
| | | | irregular 1/16" thick quartz and siderite veins, and $FeS_2$ veins and blebs. | | |
| 387'6" | 388' | 6" | $FeS_2$ vein, minor galena: 1¼" thick, dips at 65° | | |
| 388' | 403' | 15" | Interbedded dark grey-black slates and grey quartzites: Quartzite beds | | |
| | | | vary in thickness between 1/16" and 3". Beds highly contorted, vary in | | |
| | | | dip between 20° and 85°. Irregular 1/16"-¼" thick quartz veins | | |
| | | | scattered throughout. $FeS_2$ veins and blebs abundant between 388' and | | |
| | | | 392', elsewhere occasional $FeS_2$ as blebs. | | |
| 403' | 403'2" | 2" | $FeS_2$-galena-quartz vein: 1½" thick, dip at 50°. | | |
| 403'2" | 418' | 14'10" | Interbedded dark grey-black slates and grey quartzites: beds highly | | |
| | | | contorted, quartzite beds frequently brecciated. Occasional $FeS_2$ | | |
| | | | blebs and veins 1/16"-1/8" thick. $FeS_2$ quartz veining from 415'-415'6" | | |
| | | | dip 50°. Same as bedding, replacement or syngenetic ?. | | |
| 418' | 421'4" | 3'4" | Highly contorted pyritic slates and grey quartzites: bedding varies | | |
| | | | between 20° and 90°, pyrite here is very fine grained, would definitely | | |
| | | | appear to be syngenetic. Quartzites very fractured, fractures filled | | |
| | | | with quartz, some $FeS_2$ disseminated. | | |
| 421'4" | 439' | 17' | Interbedded black slates and grey quartzites: beds contorted, dip varies | | |
| | | | between 10° and 90°. Quartzite beds either brecciated or drawn out | | |
| | | | into stringers ½" $FeS_2$ bleb at 423'6" . | | |
| 439' | 477' | 38' | Interbedded black slates and grey to dark grey fine-grained quartzites: | | |
| | | | beds dip at 40°-90°, average dip of 60° from 439'-459', average dip of | | |
| | | | 80° from 459'-465', very variable dip from 465'-477'. Occasional less /6 | | |

| Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No. G.13 Sh. |
|---|---|---|---|---|---|
| | | | | | |

Analysis

| Property | QUEEN HILL 117 | District | | Hole No. | G.13 (Cont'd) | | |
|---|---|---|---|---|---|---|---|
| Commenced | | Location | ZEEHAN, TASMANIA | Tests at | | Hor. Comp. | 764119 |
| Completed | | Core Size | | Corr. Dip | | Vert. Comp. | |
| Co-ordinates | | | | True Brg. | | Logged by | |
| Objective | | | | % Recov. | | Date | |

| Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No. G.13 Sh |
|---|---|---|---|---|---|
| | | | | | |

| Footage From | To | Description Recovery | | Sample No. | Length | Analysis |
|---|---|---|---|---|---|---|
| | | | than 1/16"-1/16" thick siderite and quartz veins, planar or irregular. | | | |
| 477' | 485' | 8' | Grey medium grained quartzites, minor black slates: beds dip at 30°-85°, | | | |
| | | | av. dip of 45°. Occasional 1/16" thick siderite veins and blebs. | | | |
| 485' | 504' | 19' | Interbedded grey quartzites and black slates: beds contorted, dip between | | | |
| | | | 30° and 90°. Beds highly contorted with quartz veining and $FeS_2$ specks | | | |
| | | | between 498' and 499'. Rare siderite veins 1/16"-1/8" thick, irregular. | | | |
| 504' | 534' | 30' | Dark grey-black slates, minor quartzites: beds highly contorted, dip at | | | |
| | | | 20°-90° quartzite beds 1/16"-2" thick, often brecciated. 1/16"-¼" thick | | | |
| | | | white quartz veins, blebs and stringers scattered throughout. 3/4" thick | | | |
| | | | quartz-siderite $FeS_2$ galena veins, dip 75°, at 504'2", 511' and 511'3". | | | |
| | | | ½" thick $FeS_2$ siderite vein, dip 70° at 518'. ½" thick $FeS_2$-galena vein | | | |
| | | | dip 70° at 517'. 1" of 70° dipping quartz-$FeS_2$ veins at 529'6". $FeS_2$ | | | |
| | | | elsewhere as rare veins and blebs. | | | |
| 534' | 563'6" | 29'6" | Interbedded black slates, and grey quartzites: beds dip at 30°-65°, | | | |
| | | | average dip of 50°. Quartzite beds only occasionally brecciated. 1/16"-½" | | | |
| | | | thick planar or irregular quartz-siderite veins at 1" to 1' intervals, | | | |
| | | | predominantly dipping at 60°, some with $FeS_2$. ½" thick $FeS_2$ vein, dip | | | |
| | | | 45° at 545'6". 1/8"-½" thick $FeS_2$-siderite vein, dip 50°, at 550'. | | | |
| | | | ¼"-½" thick $FeS_2$-siderite-galana vein, dip 45°, at 553'6". 2" of $FeS_2$ | | | |
| | | | quartz veining, dip 60°, at 561'8". 1½" thick $FeS_2$-galena-siderite vein, | | | |
| | | | dip 40° at 562'. | | | |

/7

COCKINGTON PRINT

| | | | |
|---|---|---|---|
| Property QUEEN HILL | District | Hole No. G.13 (Cont'd) | |
| Commenced | Location ZEEHAN, TASMA[illegible] | Tests at | Hor. Comp. 764120 |
| Completed | Core Size | Corr. Dip | Vert. Comp. |
| Co-ordinates | | True Brg. | Logged by |
| Objective | | % Recov. | Date |

Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No. G.13 Sh

| Footage From | To | Description Recovery | | Sample No. | Length | Analysis |
|---|---|---|---|---|---|---|
| 563'6" | 584'3" | 20'9" | Interbedded dark grey-black slates and grey quartzites: beds dip at 45°-80°, average dip of 50°. Quartzite beds frequently brecciated. Rare irregular 1/16"-1/8" thick siderite and $FeS_2$ veins. 1¼" thick $FeS_2$ vein, dip 65°, at 580'6". | | | |
| 584'3" | 596' | 11'9" | Grey quartzites minor black slates: beds dip at 55°-85°. Rare planar 1/16"-1/8" siderite and quartz veins. | | | |
| 596' | 646'6" | 50'6" | Interbedded dark grey black slates and grey quartzites: beds highly contorted in parts, dip varies between 40° and 90°. dip constant at 40°-45° from 607'-614' and from 643'-646'6". Quartsite beds frequently brecciated. Rare planar or irregular siderite and quartz veins 1/16"-1/8" thick scattered throughout. | | | |
| 646'6" | 666' | 19'6" | Quartz-siderite lode: $FeS_2$ disseminated through lode between 646'6" and 652'10", elsewhere $FeS_2$ is as rare specks or absent. Lode contact at 646'6" dips at 25°, at 666' dips at 25° also. No dominant banding visible in lode. | | | |
| 666' | 675' | 8' | Interbedded dark grey-black slates and grey quartzites: beds highly contorted, occasional irregular 1/16"-1/4" thick quartz and siderite veins and blebs. | | | |
| 675' | 682' | 7' | Quartz-siderite lode: dark grey cherty quartz criss-crossed by irregular siderite veins, rare $FeS_2$ blebs and irregular veins. | | | |
| 682' | 696'9" | 10' | Spilitic tuff: grey to pale grey moderately to highly weathered spilitic tuff. Flow (bedding ?) dips at 80° at 692' | | | |

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COCKINGTON PRINT

119

| | | | |
|---|---|---|---|
| Property QUEEN HILL | District | Hole No. G.13 (Cont'd) | |
| Commenced | Location ZEEHA, TASMANIA | Tests at | Hor. Comp. 764121 |
| Completed | Core Size | Corr. Dip | Vert. Comp. |
| Co-ordinates | | True Brg. | Logged by |
| Objective | | % Recov. | Date |

Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No. G.13 Sheet

| Footage From | To | Description Recovery | | Sample No. | Length | Analysis |
|---|---|---|---|---|---|---|
| 696'6" | 698'6" | 6" | Quartz vein: $FeS_2$ specks disseminated, also minor-siderite. Dip in vein | | | |
| | | | at 698'6" is 50°. Recovery poor. | | | |
| 698'6" | 705' | 6'6" | Spilitic tuff: grey to dark grey agglomeratic tuff | | | |
| 705' | 792' | 86'6" | Spilitic tuff: grey to dark grey fresh spilitic tuff, amygdaloidal | | | |
| | | | throughout, amygdales filled with a black material (chlorite ?), Flow | | | |
| | | | dips at 50°-80°. Amygdales occasionally filled with quartz or siderite. | | | |
| | | | Irregular 1/16"-½" thick quartz veins scattered throughout. | | | |
| | | | END OF HOLE - 792' | | | |

HICKINSON'S PRINT

120

| | | | |
|---|---|---|---|
| Property QUEEN HILL | District | Hole No. G.14 | 72-865 |
| Commenced 7/10/71 | Location [illegible]L, TASMANIA | Tests at | Hor. Comp. 764122 |
| Completed 20/10/71 | Core Size | Corr. Dip 67° | Vert. Comp. |
| Co-ordinates | | True Brg. 202° | Logged by P. O'Shea |
| Objective | | % Recov. | Date 9 - 21/10/1971 |

| Claim QUEEN HILL | T. Brg. 202°M. | Collar Dip 67° | Elev. | Length |
|---|---|---|---|---|
| Analysis | | | | |

| Footage From | Footage To | Description | Sample No. | Length |
|---|---|---|---|---|
| 0' | 24' | Pale grey quartzites: beds fine-medium grained, micaceous on bedding planes. Beds dip at 45°-50°. | | |
| 24' | 25' | Pale grey siltstones: hard, micaceous siltstones, beds dip at 50°. Joints irregular, Fe-stained. | | |
| 25' | 70'6" | Grey to pale grey quartzites: fine-medium grained, irregular Fe-staining around strongly jointed parts. Very minor hard grey micaceous siltstones. Beds dip at 50° at 41' and 60° at 65', elsewhere bedding indistinct. Mineralisation: $FeS_2$ present as joint fillings at 49'6". Elsewhere in the core Fe-staining around joints is probably due to oxidation of $FeS_2$ in joints. ½" thick oxidised bourwork gossan vein, dip 70° at 58'9". | | |
| 70'6" | 77'6" | Grey siltstones: hard, micaceous siltstones, beds dip at 60°. Very minor pale grey quartzite beds ½"-½" thick. | | |
| 77'6" | 83' | Quartz veining in grey quartzites: ½"-1' thick quartz veins, irregular, in grey quartzites. $FeS_2$ specks, fresh and oxidised in quartz from 80'-81'. | | |
| 83' | 172'6" | Grey to pale grey quartzites: fine-medium grained quartzites, slightly micaceous throughout. Bedding dips at 70°-90° from 83'-103', and at 55°-70° from 103'-172'6". Quartzites generally more micaceous on bedding planes. Very minor grey to dark grey siltstones, as ½"-½" thick beds. 1/16"-½" thick quartz veins, planar or irregular, dip 30°-40° spaced ½"-1'6" apart. Mineralisation: 1/16"-1/8" thick $FeS_2$ veins and blebs, irregular, scattered through | | |

COBRINGTON PRINT

| | | | |
|---|---|---|---|
| Property QUEEN HILL 121 | District | Hole No. G.14 (Cont'd) | |
| Commenced | Location | Tests at | Hor. Comp. 764123 |
| Completed | Core Size | Corr. Dip | Vert. Comp. |
| Co-ordinates | | True Brg. | Logged by |
| Objective | | % Recov. | Date |

Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No. G.14 | Sheet

| Footage From | To | Description | Sample No. | Length | Analysis |
|---|---|---|---|---|---|
| | | quartzite between 105' and 110'. | | | |
| 172'6" | 175' | Fault Zone: highly contorted black graphitic slates and grey quartzites, irregular quartz Fe-$S_2$ siderite veins and blebs throughout. Quartzite-fault contact at 172'6" dips at 40° | | | |
| 175' | 207' | Interbedded dark grey, black slates and grey quartzites: beds 1/16" - 1" thick, highly contorted between 175' and 192', dip at 30°-70°. Beds ¼" - 2" thick, dip at 50°-90° between 192' and 207'. 1½" thick fault, dip 60°, at 204' and at 205'6" 20% recovery in quartzite between 205'6" and 207'. Irregular 1/16" - ¼" thick quartz-siderite veins and blebs. scattered between 189' and 192'. | | | |
| 207' | 215' | Black graphitic slate: beds highly contorted, micaceous, slate-quaftzite breccia scattered from 212' - 215' throughout slates. | | | |
| 215' | 241' | Chert breccia? brecciated chert, minor slate and quartzite fragments (especially from 215'-219') in a graphite matrix - appears to be a major fault zone. Contact at 215' dips at 83° not distinguishable at 241'. Mineralisation: between 215' and 219' some of the siltstone-slate fragments are pyriting, also from 225'4" - 226'9". Dull fine-grained $FeS_2$ in matrix at 232' for 6", and scattered through matrix as disseminated patches 1/8"-1/4" thick from 235'-239'. | | | |
| 241' | 268'6" | Black graphitic slates, minor grey quartzites: clearage in slates poorly developed between 241' and 255'. Quartzite beds frequently brecciated into 1/16" - 1/8" | | | |

../3

| | | | | |
|---|---|---|---|---|
| Property QUEEN HILL | District | Hole No. C.14 (cont'd) | | |
| Commenced | Location | Tests at | Hor. Comp. 764124 | |
| Completed | Core Size | Corr. Dip | Vert. Comp. | |
| Co-ordinates | | True Brg. | Logged by | |
| Objective | | % Recov. | Date | |

| Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No. | Sheet |
|---|---|---|---|---|---|---|
| | | | | | | |

| Footage From | To | Description | Sample No. | Length | Analysis |
|---|---|---|---|---|---|
| | | fragments beds dip 45°-65°, contorted in places. Occasional 1/16" - 1/8" thick irregular quartz veins. | | | |
| | | Mineralisation: ½" thick quartz $FeS_2$ vein, dip 45° at 245'7". 4" of quartz-$FeS_2$ veining, dip 45° at 256'6". $FeS_2$ scattered through core as angular blebs. | | | |
| 268'6" | 398' | Interbedded dark grey-black slates and grey quartzites: Slate beds 1/16"-1½" thick, quartzite beds 1/8"-6" thick. Beds dip at 40°-55° generally, in places contorted with beds dipping up to 90°, due to folding and minor faulting. | | | |
| | | Quartzite beds dominant from 294'-303'-345'6", and from 379'6"-383'. Occasional 1/16"-¼" thick irregular or planar quartz veins, mainly confined to quartzite beds. | | | |
| | | 6" fault pug, dip 30°, at 356'6". 2' fault pug, dip 55° at 395'. | | | |
| | | Mineralisation: ¼" thick $FeS_2$ vein, dip 30° at 306'. ¼" thick $FeS_2$ quartz-siderite vein, dip 35° at 319'6". 1/8" thick $FeS_2$ vein, dip 30° at 335'2". | | | |
| | | 3/4" thick $FeS_2$ siderite-quartz- vein, dip 63°, at 336'. 3½" thick quartz-$FeS_2$ siderite veining, dip 60° at 341'3". 1" thick $FeS_2$-siderite-fluorite vein, dip 55° at 345'6". $FeS_2$ as 1/16" - 1/8" thick veins dipping same as bedding (45°-55°), spaced 1/16" - 6" apart, from 335'6" - 347'6". ¼" thick $FeS_2$ vein, dip 60°, at 377'. ¼" thick $FeS_2$-quartz-siderite vein, dip 35° at 388'2". 1 3/4" thick. $FeS_2$-quartz vein, dip 45°, at 391'6". | | | |
| 398' | 409' | Interbedded dark grey slates and grey quartzites: beds strongly folded, dip between 20° and 65°. Beds brecciated in a fault between 401'7". Fault dips at 70°. Fault, dip 70° from 403'6"-404', consisting of quartz cemented breccia. | | | |

../4

| Property 123 | District | Hole No. G.14 (cont'd) | Hor. Comp. 764125 |
|---|---|---|---|
| Commenced | Location | Tests at | |
| Completed | Core Size | Corr. Dip | Vert. Comp. |
| Co-ordinates | | True Brg. | Logged by |
| Objective | | % Recov. | Date |

| Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No. | Sheet |
|---|---|---|---|---|---|---|
| | | | | | | |

| Footage From | To | Description | Sample No. | Length | Analysis Sn | Cu | Pb | Ag |
|---|---|---|---|---|---|---|---|---|
| | | Fault, dip 70°, at 404'7" for 3/4". | | | | | | |
| | | Mineralization: ¼" thick $FeS_2$ vein, dip 45°, [illegible] at 398'. 3" of quartz-$FeS_2$ veining, dip 30°, at 399'7" 1¼" thick quartz-$FeS_2$ veining, dip 55°, at 401'6". 1" thick $FeS_2$ veining, dip 30°, at 422'6". 1" thick quartz-$FeS_2$ vein, dip 50°, at 432'10". $FeS_2$ specks in fault breccia at 433'6"/ | 412'-414' | | 1.85 | 1.01 | | 4.55 |
| 409' | 415'6" | Quartz-$FeS_2$ lode: quartz-$FeS_2$ veins 1/16"-6" thick strongly developed in black slate-grey quartzite country rock which is mostly highly brecciated. Quartz-$FeS_2$ veins dip at 25°-35°, average dip of 30°. Minor siderite and fluorite in some veins. Stannite disseminated and as 1/4" thick veins, in massive $FeS_2$ lode between 412' and 413'. | | | | | | |
| 415'6" | 425'5" | Black slates and brecciated quartzites: 1/8"-1" thick brecciated quartzite fragments in a black slate matrix. Highly contorted, linsations dip at 45°-70°. | | | | | | |
| 425'5" | 480'6" | Interbedded dark grey-black slates and grey quartzites: beds dip at 30°-50° from 425'6", beds highly contorted from 436'6"-442', folded, dip at 40°-90° from 442'-460', dip at 30°-75° from 468'-480'6". Quartzite beds often dislocated between 429' and 442'. Rare irregular 1/16"-¼" thick quartz and siderite veins. Mineralization: 3/4" thick $FeS_2$ veins, dip 60 at 437'. 3/4" thick $FeS_2$-siderite vein, dip 50°, at 438'2". ¼" thick $FeS_2$ siderite vein, dip 40° at 448'10". 5" of $FeS_2$-quartz veining, dip 40°, at 479'3". | | | | | | |
| 480'6" | 529'5" | Interbedded dark grey-black slates and grey quartzites: quartzites often brecciated or dislocated, beds dip at 30°-55°. 1" of massive quartzite at 483'. | | | | | | |

COCKINGTON PRINT

Property

Commenced 124 | Location | Tests at | Hor. Comp. 764126

Completed | Core Size | Corr. Dip | Vert. Comp.

Co-ordinates | | True Brg. | Logged by

Objective | | % Recov. | Date

6.14 (cont'd)

| Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No. |
|---|---|---|---|---|---|
| | | | | | |

| Footage From | To | Description | Sample No. | Length | Analysis Sn | Cu | Pb | Ag |
|---|---|---|---|---|---|---|---|---|
| | | ¼" thick fault pug, dip 30°, at 484'10". 1/8" thick fault pug, dip 45°, at 523'1". ¼" thick fault pug, dip 60°, at 525'5". Occasional quartz-siderite veins, 1/16"-¼" thick. | 529' | 534' | 0.26 | 0.73 | 18.35 | 9.67 |
| | | Mineralization: $FeS_2$ specks scattered throughout quartzite beds from 482'6" - 484' elsewhere as rare specks. ¼" thick $FeS_2$-siderite vein, dip 55° at ... 515'. | | | | | | |
| 529'5" | 533'11" | Siderite-galena lode: 7" of slate breccia cemented by quartz-siderite lode at 529'5" followed by massive siderite with bands and patches of galena throughout. Chalcopyrite scattered through the siderite as irregular patches, especially between 532'1". Breccia-scattered contact at 530' dips at 60°. Lode-country rock contact at 533'11" dips at 20°. Banding in lode dips at 55°. | | | | | | |
| 533'11" | 600' | Interbedded dark grey slates and grey quartzites: beds contorted, dip between 20° and 90°, very variable. Beds highly contorted from 533'11" - 560'. Quartzite beds occasionally dislocated or brecciated. 3/4" thick chert bed, dip 30°, at 566'6". ¼" thick brecciated chert bed, dip 50°, at 575'6". 1/16"-1" thick irregular quartz veins, scattered throughout, especially from 533'11" - 543'. | | | | | | |
| | | Mineralization: 3/4" thick siderite-$FeS_2$ vein, dip 70° at 541'. 3/4" thick siderite-$FeS_2$ vein, dip 30°, at 541'6". | | | | | | |
| 600' | 604'8" | Grey quartzites, minor dark grey slates: Beds highly contorted, quartzites, brecciated. 1/16" - 1/4" -thick quartz, siderite and $FeS_2$ veins scattered throughout the quartzite beds. | | | | | | |

| Property | QUEEN HILL 125 | District | | Hole No. | G.14(cont'd) | | |
|---|---|---|---|---|---|---|---|
| Commenced | | Location | | Tests at | | Hor. Comp. | 764127 |
| Completed | | Core Size | | Corr. Dip | | Vert. Comp. | |
| Co-ordinates | | | | True Brg. | | Logged by | |
| Objective | | | | % Recov. | | Date | |

| Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No. | Sheet |
|---|---|---|---|---|---|---|
| | | | | | | |

| Footage From | To | Description | Sample No. | Length | Analysis Sn | Cu | Pb | Ag |
|---|---|---|---|---|---|---|---|---|
| 604'8" | | Interbedded dark grey-black slates and grey quartzites: beds contorted, dip between 20° and 90°. 1 ft. of chert at 614'6". Quartzite beds frequently brecciated. 4" felsit pug at 613'2", dip 30°. | 634' - 638' | | 0.43 | | | 0.72 |
| | | | 662' - 665' | | 0.93 | 0.01 | | |
| | | Mineralization: $FeS_2$ scattered throughout as 1/16"-1/8" thick irregular veins and blebs replacing quartzite. 2½" thick siderite vein, dip 5°, replacing chert at 615'3". ½" thick siderite-sphalerite vein, dip 70°, at 621'3". 5" thick $FeS_2$-quartz veining, dip 35°, at 632'10". | | | | | | |
| 634'6" | 637'8" | Quartz-pyrite-lode: Quartz-pyrite criss-cross veins with minor included country rock. Banding in $FeS_2$ at 634'9" dips at 30°. Minor stannite present between 634'6" and 635'5" as blebs and less than 1/16" thick veins in pyrite. | | | | | | |
| 637'8" | 662'6" | Interbedded black slates and grey quartzites: beds contorted, quartzites often brecciated. Beds dip at 35°-75°, average dip of 55°-60°. Beds pyritic at 660'9" for 1'9". | | | | | | |
| | | Mineralization: $FeS_2$ disseminated throughout as specks, blebs and irregular veins 1/16"-1" thick. 1" thick $FeS_2$ vein, dip 35°, at 642'7". 1" thick $FeS_2$ quartz vein, dip 65° at 648'10". 1" thick $FeS_2$ vein, dip 52°, at 651'5". ½" thick $FeS_2$-quartz vein, dip 40°, at 656'3". 5" of $FeS_2$-quartz veining, dip 60° at 656'6". 1" thick $FeS_2$ vein, dip 65° at 659'. ½" thick $FeS_2$ vein, dip 50° at 660'5". ½" thick $FeS_2$ vein, dip 75°, at 661'6". | | | | | | |
| 662'6" | 664'1" | Quartz-Pyrite lode: Massive quartz-pyrite lode, contact at 664'1" dips at 30°. No banding in lode. | | | | | | |
| | | ../7 | | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| Property 126 | QUEEN HILL | District | Hole No. | 8.14 (Cont'd) | |
| Commenced | | Location | Tests at | Hor. Comp. | 764128 |
| Completed | | Core Size | Corr. Dip | Vert. Comp. | |
| Co-ordinates | | | True Brg. | Logged by | |
| Objective | | | % Recov. | Date | |

| Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No. |
|---|---|---|---|---|---|
| | | | | | |

| Footage From | To | Description | Sample No. | Length | Analysis |
|---|---|---|---|---|---|
| 664'1" | 710'6" | Interbedded black slates and gray quartzites: beds contorted, dip at 20°-90°. Irregular 1/16" thick quartz and siderite veins scattered throughout from 664'1"-680'. Average dip of beds between 680', and 710'6" is 55°. Slates often graphitic on cleavage surfaces. Quartzite beds sometimes dislocated 1/14" shattered slate and pug on fault, dip 50°, at 703'9". Fault, dip 60° with 6/8" pug at 707'6". 2" of shattered slate in fault at 709'. Recovery 80% from 707'-710'6". | | | |
| | | Mineralization: Rare irregular $FeS_2$ veins 1/16"-1/8" thick between 604'1" and 678'9". 2" of $FeS_2$-siderite veining in country rock, dip 40°, at 679'. | | | |
| 710'6" | 718' | Fault pug and shattered slate: black slate shattered into 1/16"-1" lengths, smaller pieces cemented by soft clay pug. 2" thick siderite vein, dip 40°, at 726'. Core recovery 30% from 710'6" - 716'6". | | | |
| 718' | 721' | Siderite lode: no banding visible. Chalcopyrite scattered throughout. Rare galena specks. Siderite-contorted country rock contact 721' dips at 55°. | | | |
| 721' | 727' | Interbedded black graphitic slates and grey quartzites: beds contorted, bedding difficult to discern. 1/16"-1/4" thick irregular quarts and siderite veins scattered throughout. 1" thick $FeS_2$-siderite vein, dip 40°, at 722'. | | | |
| 727' | 762'3" | Green, fine-grained quartzites, minor grey slates: beds dip at 60°-70°. 9" thick fault pug with quartzite and $FeS_2$ angular fragments, fault plane dips at 70°, at 750'8". Rare 1/16" thick irregular or planar quartz veins. | | | |

COCKINGTON PRINT

Property QUEEN HILL 127 | District | Hole No. G.14(Cont'd)

Commenced | Location | Tests at | Hor. Comp. 764'29

Completed | Core Size | Corr. Dip | Vert. Comp.

Co-ordinates | True Brg. | Logged by

Objective | % Recov. | Date

| Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No. |
|---|---|---|---|---|---|
| | | | | | |

| Footage From | To | Description | Sample No. | Length | Analysis |
|---|---|---|---|---|---|
| 762'3" | 775'9" | Black Slates: Slightly to strongly graphitic throughout. Cleavage dips at 70°-90°. | | | |
| | | Rare 1/16" thick irregular quartz veins and $FeS_2$ blebs. | | | |
| 775'9" | 793' | Grey to dark grey quartzites, siltstones and minor slates: beds dip at 75°-90°. | | | |
| | | Occasional 1/16" thick irregular quartz veins. Slates graphitic. | | | |
| | | Mineralization: Rare $FeS_2$ blebs. 3/4" thick $FeS_2$-siderite vein, dip 60° at 783'4" | | | |
| 793' | 789'9" | Siderite-pyrite lode: siderite $FeS_2$ veins and blebs with included patches of | | | |
| | | country rock (793'6" - 794' and 796'-797' is slates with $FeS_2$, scattered throughout | | | |
| | | as specks and blebs). | | | |
| 789'9" | 806' | Interbedded grey quartzites and black slates: Beds contorted, dip at 70°-90°, | | | |
| | | some beds brecciated. Irregular 1/16"-1/8" thick quartz and siderite veins | | | |
| | | scattered throughout. | | | |
| | | Mineralization: $FeS_2$ scattered throughout as specks, blebs and irregular veins | | | |
| | | at 799'9". $FeS_2$ appears to be syngenetic. | | | |
| 806' | 822'6" | Dark Grey-black slates: Slightly to strongly graphitic. Rare grey quartzite | | | |
| | | beds. Beds dip at 60°. Beds pyritic between 815'. Rare 1/16" - 1/8" thick | | | |
| | | irregular quartz veins. | | | |
| 822'6" | 838'6" | Grey quartzites, minor dark grey siltstones: beds dip at 50°-65°, bedding often not | | | |
| | | discernible. 6" of brecciated quartzite in siderite matrix at 823'10". 1/16" thick | | | |
| | | irregular quartz-siderite veins scattered throughout. | | | |
| | | Mineralization: $FeS_2$ specks and blebs scattered throughout the quartzite beds. | | | |
| | | 2½" thick $FeS_2$-siderite vein, dip 60° at 834'6". | | | |
| | | | | | |

| Property | 128 QUEEN HILL | District | | Hole No. | G.14 (cont'd) | | |
|---|---|---|---|---|---|---|---|
| Commenced | | Location | | Tests at | | Hor. Comp. | 764130 |
| Completed | | Core Size | | Corr. Dip | | Vert. Comp. | |
| Co-ordinates | | | | True Brg. | | Logged by | |
| Objective | | | | % Recov. | | Date | |

| Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No. | Sheet |
|---|---|---|---|---|---|---|
| | | | | | | |

| Footage From | To | Description | Sample No. | Length | Analysis |
|---|---|---|---|---|---|
| 838'6" | 842' | Black graphitic slates: beds dip at 70°, occasional less than 1/16" thick siderite veins. | | | |
| 842' | 872' | Interbedded dark grey slates, grey quartzites and siltstones: beds dip at 70°-75° from 842'-847'. beds contorted dip at 35°-90° from 847'-872'. Slates graphitic on cleavage planes. Quartzite beds brecciated from 848'3"-848'6". Rare quartz and $FeS_2$ specks and blebs, and irregular 1/16" thick veins. | | | |
| 872' | 884' | Grey quartzites: grey fine-grained quartzites, very minor black slates. Beds dip at 50°-65°. Quartzite beds sometimes brecciated. Rare quartz veins and blebs. $FeS_2$ scattered throughout as ¼" blebs. | | | |
| 884' | 915'6" | Interbedded black slates and grey quartzites: beds dip at 70°-90°, quartzites fine-grained, often micaceous with $FeS_2$ specks. Quartzites often brecciated from 908'-915'6". Occasional irregular quartz veins and $FeS_2$ blebs. | | | |
| 915'6" | 919'8" | Quartz-siderite-pyrite lode: Massive quartz-siderite lode with $FeS_2$ specks throughout. 6" of included $FeS_2$ specked quartzite at 915'9". Lode-country rock contacts dip at 50°. Irregular quartz veins scattered throughout lode | | | |
| 918'8" | 922' | Dark grey-black slates and grey quartzites: beds dip at 80°. Less than 1/16" thick - 1/16" thick planar quartz veins scattered throughout, dip at 50°. $FeS_2$ specks scattered throughout. | | | |
| 922' | 922'10" | Quartz-siderite-pyrite lode: Massive quartz-siderite lode with $FeS_2$ specks, same as 915'6"-919'8". | | | |
| | | .../10 | | | |

123

| | | | |
|---|---|---|---|
| Property QUEEN HILL | District | Hole No. G.14 (Cont'd) | |
| Commenced | Location | Tests at | Hor. Comp. 764131 |
| Completed | Core Size | Corr. Dip | Vert. Comp. |
| Co-ordinates | | True Brg. | Logged by |
| Objective | | % Recov. | Date |

| Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No. |
|---|---|---|---|---|---|
| | | | | | |

| Footage From | To | Description | Sample No. | Length | Analysis |
|---|---|---|---|---|---|
| 922'10" | 935'6" | Tuffaceous slates, quartzites and spilites: grey tuffaceous slates, agglomerate in parts. Quartzites pale grey-cream, often replaced by siderite, major lineation dips at 80°. Spilites grey massive. Rare $FeS_2$ specks. | | | |
| 935'6" | 937' | Black fault pug with shattered slate fragments: fault plane at 935'6" dips at 45°. $FeS_2$ specks throughout. | | | |
| 937' | 981' | Spilitic Tuff: pale grey-green spilitic tuff, agglomerate in patches (especially from 937'-941'), occasionally amygdaloidal (amygdales quartz filled). Planar or irregular 1/16"-¼" thick siderite veins scattered throughout. Faulted zone from 961'3"-963'6" - core very broken. Mineralization: $FeS_2$ as irregular veins, blebs and specks together with strong siderite veining present between 937' and 940'. 5" thick quartz-siderite-$FeS_2$ vein with some included spilite, dip 55°, at 943'6". 6" of siderite replacement of spilite at 944'3". 2" thick siderite vein with $FeS_2$ specks, dip 50° at 948'6". | | | |
| 981' | 981'6" | Fault pug: pale grey, soft fault pug cementing angular quartz fragments. Fault plane dips at 40°. | | | |
| 981'6" | 984'6" | Black tuffaceous shale: broken, graphitic on cleavage planes. Major lineation dips at 70°. | | | |
| 984'6" | 1000' | Spilitic tuff: cream, amygdaloidal spilite fresh to slightly weathered. Amygdales filled with either quartz or a black mineral (chlorite ?). Flow at 998' dips at 50°. Occasional irregular 1/16"-¼" thick siderite veins. 2" thick quartz siderite vein, dip 65°, with $FeS_2$ specks at 988'6"/ | | | |

Property 130 QUEEN HILL | District | Hole No.

Commenced | Location | Tests at | Hor. Comp. 764'32

Completed | Core Size | Corr. Dip | Vert. Comp.

Co-ordinates | True Brg. | Logged by

Objective | % Recov. | Date

| Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No. |
|---|---|---|---|---|---|
| | | | | | |

| Footage From | To | Description | Sample No. | Length | Analysis |
|---|---|---|---|---|---|
| | | **END OF HOLE AT 1000'** | | | |
| | | **Tropari Results:** **Depth:** **Dip:** **Bearing:** | | | |
| | | 300' 67° 271°M | | | |
| | | 400' 61° 290°M | | | |
| | | 600' 59° 260°M | | | |
| | | 1000' 53° 209°M | | | |
| | | **Acid Tube Results:** 800' 57° | | | |

COCKINGTON PRINT

131

| | | | | | |
|---|---|---|---|---|---|
| Property | QUEEN HILL | District | Zeehan | Hole No. | G.15 |
| Commenced | 22/1/72 | Location | Tasmania | Tests at | |
| Completed | 5/2/72 | Core Size | | Corr. Dip | 60° |
| Co-ordinates | | | | True Brg. | 282° |
| Objective | | | | % Recov. | |

72-865

Hor. Comp. 764133

Vert. Comp.

Logged by D. R. Brown

Date 26/1/1972-6/2/1972

Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No. | Sheet

| Footage From | To | Description | Sample No. | Length | Analysis |
|---|---|---|---|---|---|
| | | **Percussion drilled to 99'** | | | |
| 0' | 99' | Fines, 70% by volume above the water table, are light brown and abrasive. Chips, 30% by volume above water table, are composed of quartz and cream to very light grey quartzite. | | | |
| | | The water table began at approximately 20', below which recover decreased with depth. Between 20-35', chips are mainly recovered, which consist of quartzite and quartz. Below 35', recovery is generally very poor and consists of a light brown slurry with chips of quartzite and quartz up to ½" dia. | | | |
| | | Rock type: light brown quartzite. | | | |
| | | Diamond drilling started at 99', using N.X. size rods. | | | |

COCKINGTON PRINT

| | | | | | |
|---|---|---|---|---|---|
| Property 132 | QUEEN HILL | District | Zeehan | Hole No. | G.15 |
| Commenced | 22/1/72 | Location | Tasmania | Tests at | |
| Completed | 5/2/72 | Core Size | | Corr. Dip | 60° |
| Co-ordinates | | | | True Brg. | 282° |
| Objective | | | | % Recov. | |

Hor. Comp. 764134
Vert. Comp.
Logged by D. R. Brown
Date 26/1/1972-5/2/1972

| Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No. | Sheet |
|---|---|---|---|---|---|---|
| | | | | | | |

| Footage From | To | Description | Sample No. | Length | Analysis |
|---|---|---|---|---|---|
| | | Percussion drilled to 99' | | | |
| 99' | 184' | Cream to pale grey quartzites. Fine to medium grained: predominately medium. | | | |
| | | Irregular joints. Core fractured and broken. Bedding (indistinct) dips 55° at 113', | | | |
| | | 65° at 129'. Mineralization: $FeS_2$ veins at 121'9", 3/4" thick dips 45°; at 126', | | | |
| | | 1" thick dips at 20°, at 128', ¼" thick dips at 55°, at 130'3", 3/4" thick dips at 50°. | | | |
| | | Occasional $FeS_2$ blebs and veins up to 1/8" thick spasmodicly throught from 155". | | | |
| 184' | 191'9" | Pale grey quartzite with minor grey siltstone. Fine to medium grained quartzites. | | | |
| | | At 185' bedding (very indistinct) dips 50°. | | | |
| | | Mineralization: A few small (up to ¼" thick) irregular quartz veins. | | | |
| 191'9" | 216" | Pale grey siltstone. Bedding non-existent except at 209'3" where it dips at 80°. | | | |
| | | Possible fault between 197'-200'6" where recovery of very broken puggy siltstone | | | |
| | | was 1'2". Core very broken in places. | | | |
| 216' | 226' | Light grey quartzite with interbedded and slightly contorted siltstone beds. | | | |
| | | Quartzite medium grained and relatively soft. Core broken in places. Bedding dips | | | |
| | | 55° at 225'5". | | | |
| | | Mineralization: $FeS_2$ blebs (1/8") over 2" at 218'4" - 218'6". | | | |
| 226' | 236'11" | Brecciated and contorted black slates with minor interbedded grey quartzites. | | | |
| | | Quartzite finely bedded within slate. Core broken: shows slickensides and graphite | | | |
| | | on partings. | | | |
| 236'11" | 242'7" | Light grey quartzite with very minor interbedded black slates. Quartzite is very | | | |
| | | heavily quartz veined between 236'11" and 241'4", indicating strong fracturing or | | | |
| | | faulting. At 242'1" bedding dips at 25°. | | | |
| | | Mineralization: Very sparse $FeS_2$ veins, 1/32" thick. /2. | | | |

PRINTED IN AUSTRALIA

| | | | | | |
|---|---|---|---|---|---|
| Property 133 QUEEN HILL | District Zeehan | Hole No. G.15 | | | |
| Commenced 22/1/1972 | Location Tasmania | Tests at | Hor. Comp. 764135 | | |
| Completed 5/2/1972 | Core Size | Corr. Dip 60° | Vert. Comp. | | |
| Co-ordinates | | True Brg. 282° | Logged by D. R. Brown | | |
| Objective | | % Recov. | Date 26/1/1972-6/2/1972 | | |

| Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No. | Sheet |
|---|---|---|---|---|---|---|
| | | | | | | |

| Footage From | Footage To | Description | Sample No. | Length | Analysis |
|---|---|---|---|---|---|
| | | Percussion drilled to 99' | | | |
| 242'7" | 261'3" | Contorted black slates with finely interbedded and laminated light grey quartzites. Quartzites fine to medium grained. Core friable and extremely broken in places. Mineralization: $FeS_2$ vein at 251'8", ½" to 1" thick, dips at 40°. Otherwise very sparse and irregular veins (1/16" thick) and blebs (up to 1/8" dia.). | | | |
| 261'3" | 269' | Pale grey quartzites with interbedded black slates in places. Moderately contorted where quartzites and slates interbedded. At 265', bedding dips 60°. | | | |
| 269' | 322'10" | Finely interbedded and laminated black slates and pale quartzites. Moderately to strongly contorted throughout. Quartzite f.g. to m.g., beds up to 2½" thick. BQ starts at 273'6". Bedding dips 50° at 311', 25° at 295'7", 40° at 321'10". Mineralization: Sparse siderite veins up to ¼" thick throughout, but increasing in intensity with depth. $FeS_2$ associated with siderite veins between 284'11" and 286'2". Fin ely disseminated $FeS_2$ (syngenetic) with vein ½" - 3/4" thick at 285', dipping at 60°. Quartz vein with sulphide blebs (up to ¼") 3/4" to 1¼" thick dips -40° at 316'8". | | | |
| 322'10" | 329'7" | Finely interbedded and laminated black slates and pale quartzites. Moderately contorted. Puggy and very broken in places, possible fault zone. Mineralization: A few small (¼" thick) quartz veins with associated $FeS_2$ blebs. | | | |
| 329'7" | 333'3" | Pale grey quartzite and interbedded black slates. Laminated in places. Laminations dip 60° at 332'6". Mineralization: Extensive quartz veining between 330'4" - 332' with associated minor $FeS_2$ blebs; poor core recovery. Elsewhere, irregular quartz and siderite veins up to ¼" thick. | | | |

COCKINGTON PRINT

| | | | | | |
|---|---|---|---|---|---|
| Property 134 QUEEN HILL | District Zeehan | Hole No. G.15 | | | |
| Commenced 22/1/1972 | Location Tasmania | Tests at | | Hor. Comp. 764136 | |
| Completed 5/2/72 | Core Size | Corr. Dip 60° | | Vert. Comp. | |
| Co-ordinates | | True Brg. 282° | | Logged by D. R. Brown | |
| Objective | | % Recov. | | Date 26/1/1972-6/2/1972 | |

| Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No. | Sheet |
|---|---|---|---|---|---|---|
| | | | | | | |

| Footage From | To | Description | Sample No. | Length | Analysis Sn | Ag | Cu | Zn | Pb | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | **Percussion drilled to 99'** | | | | | | | | |
| 333'3" | 340'8" | Black slate and grey quartzite, laminated throughout, medium to strongly contorted | | | | | | | | |
| | | to slightly brecciated in places. Laminae dip 75° at 339'7", 85° at 335'. | | | | | | | | |
| | | Mineralization: Sparse, irregular siderite veins up to 1/8" thick. | | | | | | | | |
| 340'8" | 344' | Speckled, grey-black m.g. quartzite. | | | | | | | | |
| | | Mineralization: Quartz and siderite veins up to ½" thick. Very fine, | | | | | | | | |
| | | irregularly disseminated $FeS_2$ throughout. | | | | | | | | |
| 344' | 398'6" | Laminated and interbedded black slate and pale grey quartzites. Laminations and | | | | | | | | |
| | | beds contorted in places especially between 371'-390'. Beds dip 70° at 345'6", | | | | | | | | |
| | | 75° at 354', 75° at 371', 80° at 378'8", 65° at 385'1", 60° at 392'6". | | | | | | | | |
| | | Mineralization: Very fine $FeS_2$ in a few quartzite beds and laminae. Irregular | | | | | | | | |
| | | siderite and minor quartz veins (up to ¼" thick) throughout. $FeS_2$ veins: ¼" | | | | | | | | |
| | | thick at 359'9" dips 55°, ¼" thick at 370'2" dips 55°, 2½" at 381'5" - 381'7½" | | | | | | | | |
| | | dips - 55°, ½" at 388' dips 40°. | | | | | | | | |
| 398'6" | 402'1" | Lode: Massive and veined sulphide with quartz, apparently interbedded with black | 398-399 | | 0·88 | 0·22 | <0·01 | <0·01 | 0·01 | |
| | | slate. Galena and siderite between 399'2" - 399'8". Pyrite crystals up to 1/10" | 399-400 | | 1·59 | 26·1 | 1·28 | 0·20 | 15·2 | |
| | | dia. observable. | 400-402 | | 2·89 | 9·40 | 1·79 | 0·08 | 0·11 | |
| 402'1" | 407'7" | Fractured black slate. Highly contorted and fractured, with quartz veins filling | 402-404 | | 0·29 | 0·25 | <0·01 | <0·01 | 0·04 | |
| | | fractures. | 404-406 | | 0·12 | 0·15 | <0·01 | <0·01 | <0·01 | |
| | | Mineralization: Numerons irregular $FeS_2$ veins (1/16" - ½" thick) throughout, | | | | | | | | |
| | | forming large blebs up to 1" dia. in places. | | | | | | | | |
| | | .../4. | | | | | | | | |

COCKATOO PRINT

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|---|---|---|---|---|---|
| Property 135 QUEEN HILL | District Zeehan | Hole No. G.15 | | | |
| Commenced 22/1/72 | Location Tasmania | Tests at | Hor. Comp. 764137 | | |
| Completed 5/2/72 | Core Size | Corr. Dip 60° | Vert. Comp. | | |
| Co-ordinates | | True Brg. 282° | Logged by D. R. Brown | | |
| Objective | | % Recov. | Date 26/1/1972-6/2/1972 | | |

| Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No. | Sheet |
|---|---|---|---|---|---|---|
| | | | | | | |

| Footage From | To | Description | Sample No. | Length | Analysis |
|---|---|---|---|---|---|
| | | Percussion drilled to 99' | | | |
| 407'7" | 452'8" | Black slate with minor grey quartzite. Slate and quartzite laminated and interbedded. Strongly contorted to mildly brecciated in places. Bedding dips at: 50° at 425', 40° at 449'6". Mineralization: $FeS_2$ veins: 3/8" at 425 dips 50°. Sparse minor siderite veins, up to 1/16" thick, throughout. | | | |
| 452'8" | 456'8" | Light grey quartzite. Medium grained, fractured; fractures filled with quartz veins up to 3/4" thick. | | | |
| 456'8" | 466'4" | Interbedded black slate and light grey quartzite. Laminations in places. Numerous quartz veins throughout, up to ¼" thick. Bedding broken by fracturing. | | | |
| 466'4" | 469' | Black slate with minor interbedded light grey quartzite. Slate friable, core very broken, puggy in planes on joints. Mineralization: $FeS_2$ vein (¼") at 468'2" dips 75°. | | | |
| 469' | 487' | Pale grey quartzite with very minor interbedded black slate. Quartzite fractured in places - fractures filled by quartz veins up to 1" thick. At 474' bedding dips 35°, at 486'3" dips 45°. Mineralization: Irregular quartz-siderite-$FeS_2$ vein at 479'6", average thickness 3/4". Sparse, irregular siderite veins up to 1/8" thick throughout. | | | |
| 487' | 491'8" | Laminated and interbedded black slate with minor quartzite. Laminations dip 65° at 470'7". Mineralization: Fine $FeS_2$ within some quartzite laminations and fine beds. | | | |
| | | .../5. | | | |

COCKINGTON PRINT

| | | | |
|---|---|---|---|
| Property 38 QUEEN HILL | District Zeehan | Hole No. G.15 | |
| Commenced 22/1/72 | Location Tasmania | Tests at | Hor. Comp. 764'38 |
| Completed 5/2/72 | Core Size | Corr. Dip 60° | Vert. Comp. |
| Co-ordinates | | True Brg. 282° | Logged by D. R. Brown |
| Objective | | % Recov. | Date 26/1/1972-6/2/1972 |

| Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No. |
|---|---|---|---|---|---|
| | | | | | |

| Footage From | To | Description | Sample No. | Length | Analysis |
|---|---|---|---|---|---|
| | | Percussion Drilled to 99' | | | |
| 491'8" | 499'6" | Dark grey-black impure quartzite. Fine grained. Appears carbonaceous. No bedding observable. | | | |
| 499'6" | 509'4" | Pale light grey quartzite with very minor interbedded slates. Sparse quartz veins up to 3/8" thick. | | | |
| 509'4" | 521' | Black slates and pale grey quartzites. Laminated and interbedded. Very slightly contorted in plates (509'4" - 511' mainly). Average dip 60°. Mineralization: Very sparse irregular siderite veins up to 1/8" thick. $FeS_2$ veins (½") at 518'6" dips 55°. | | | |
| 521' | 545'10" | Black slate with minor pale grey quartzite. Laminated and interbedded. Moderately to strongly contorted throughout. Mineralization: $FeS_2$ and siderite veins: 3/8" - ½" thick at 527' dips 85°. $FeS_2$ vein (½" - 3/4") dips 20° at 531'. Irregular siderite and quartz veins throughout which carry specks and blebs of $FeS_2$; veins up to ½" thick. | | | |
| 545'10" | 554'4" | Black slate with very minor pale grey quartzite. Laminated with minor contortions. Quartzite predominantly fine grained. Beds dip 60° at 546'2"; 45° at 549'4"; 40° at 554'2". | | | |
| 554'4" | 562'6" | Black pyritic slate with very minor pale grey laminated quartzites. Slate moderately contorted; where not contorted average dip is approximately 60°. Mineralization: Fine $FeS_2$ disseminated throughout. Very numerous irregular $FeS_2$ veins (up to 3/8" thick) and blebs (up to ½" dia.). $FeS_2$ veins are associated with siderite and quartz; veins appear conformable with bedding. At 555' fluorite | | | |

COCKINGTON PRINT

| | | | | | |
|---|---|---|---|---|---|
| Property 137 | QUEEN HILL | District | Zeehan | Hole No. | G.15 |
| Commenced | 22/1/1972 | Location | Tasmania | Tests at | |
| Completed | 5/2/1972 | Core Size | | Corr. Dip | 60° |
| Co-ordinates | | | | True Brg. | 282° |
| Objective | | | | % Recov. | |

Hor. Comp. 764139
Vert. Comp.
Logged by D. R. Brown
Date 26/1/1972-6/2/1972

| Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No. | Sh |
|---|---|---|---|---|---|---|
| | | | | | | |

| Footage From | To | Description | Sample No. | Length | Analysis Sn | Cu | Zn | Pb | Ag |
|---|---|---|---|---|---|---|---|---|---|
| | | Percussion Drilled to 99'. | | | | | | | |
| | | crystals (1/16" dia.).in quartz and siderite vein (¼" thick). | | | | | | | |
| 582'6" | 639'3" | Black slate with interbedded pale grey quartzite. Quartzite occurs as laminae or | 626-628 | | 0.88 | <0.01 | <0.01 | 0.16 | 0.27 |
| | | stringers within the slate, although beds up to 10" thick are occasionally | 628-631 | | 0.35 | <0.01 | <0.01 | 0.03 | 0.19 |
| | | present. Slate and quartzite moderately to strongly contorted throughout, | 631-634 | | 0.01 | <0.01 | <0.01 | 0.01 | 0.10 |
| | | quartzite brecciated in places. Bedding dips at 45° at 577'; 60° at 587'; 55° | 634-636 | | 1.21 | 0.01 | 0.01 | 0.01 | 0.12 |
| | | at 604'; 45° at 607'; 40° at 621'; 45° at 631'6". Core recovery between 590' | 636-639 | | 0.01 | <0.01 | <0.01 | 0.62 | 0.07 |
| | | and 600' is 3'2". Small fault between 624'6" and 626'6" where core is puggy and | | | | | | | |
| | | broken. | | | | | | | |
| | | Mineralization: $FeS_2$ veining (up to ¼" thick) and blebs (up to 3/8" dia.) occur | | | | | | | |
| | | spasmodically throughout; this mineralization usually occurs in conjunction with | | | | | | | |
| | | quartz or siderite veining. $FeS_2$ mineralization occurs more specifically at: | | | | | | | |
| | | 571', veins over 2" dip at 45°; at 602'2" a vein 1" thick dips 45°. Between | | | | | | | |
| | | 626'6" and 630' $FeS_2$ and quartz veining is intense within black slate (estimate | | | | | | | |
| | | 10% - 20% of core is sulphide); between 633'11" and 635'2" $FeS_2$ and quartz veining | | | | | | | |
| | | within black slate and quartzite (estimate 30 - 50% sulphide in core). | | | | | | | |
| 639'3" | 641'6" | Black slate with very minor pale grey quartzite. Quartzite occurs as stringers | | | | | | | |
| | | and squeezes. | | | | | | | |
| 641'6" | 649'9" | Light grey fine to course grained quartzite with minor black slate. Quartzite and | | | | | | | |
| | | slate brecciated in places. Bedding dips at 40° at 644'. | | | | | | | |
| | | Mineralization: Between 641'6" and 642'3" strong $FeS_2$ and quartz veining within | | | | | | | |
| | | quartzite and slate (estimate 10% - 20% of core is sulphide). | | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Property | 38 QUEEN HILL | District | Zeehan | Hole No. | G.15 | | |
| Commenced | 22/1/1972 | Location | Tasmania | Tests at | | Hor. Comp. | 764140 |
| Completed | 5/2/1972 | Core Size | | Corr. Dip | 60° | Vert. Comp. | |
| Co-ordinates | | | | True Brg. | 282° | Logged by | D. R. Brown |
| Objective | | | | % Recov. | | Date | 22/1/1972-6/2/1972 |

| Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No. |
|---|---|---|---|---|---|
| | | | | | |

| Footage From | To | Description | Sample No. | Length | Analysis |
|---|---|---|---|---|---|
| | | Percussion Drilled to 99' | | | |
| 649'9" | 729' | Black slate with interbedded pale grey quartzite. Quartzite occurs as laminae and stringers or irregular patches within the slate, although beds up to 5" thick are observable. Slate and quartzite are contorted throughout with brecciated zones occurring occasionally. Where observable, bedding dips at approximately 55° at 676'; 55° at 695'; Mineralization: $FeS_2$ as veins (up to ¼" thick) and blebs (up to 3/8" dia.) occur spasmodically. Quartz and, to a lesser extent, siderite veins (up to 1" thick) occur in increasing abundance. $FeS_2$ mineralization occurs more specifically at: 680'7" to 681', veins up to ¼" thick dip at 45°; 722'8" to 723'1", vein (1½" thick) associated with fine disseminated $FeS_2$ dips - 60°. Siderite vein (1" thick) dips 45° at 728". | | | |
| 729' | 733' | Pale grey quartzite with interbedded black slate. Quartzite medium grained; quartzite and slate contorted, and fractured in places. Mineralization: Finely disseminated $FeS_2$ predominantly in quartzite. Pyrite veining occurs at 729'6" over 3/4", dips 55°. Between 732'2" and 733' pyrite veining (over 1" in width) dips - 85°. Quartz veins associated with pyrite. | | | |
| 733' | 744'4" | Black slate with very minor interbedded pale quartzites. Quartzite occurs as laminations, stringers and irregular patches in slate. At 741'6" laminae dips at - 45°. Mineralization: Very finely disseminated pyrite throughout. Numerous irregular pyrite veins (up to 1/16" thick). Veining more intense between 739'6" and 740'4" (estimate 5% - 10% of core is sulphide). | | | |

COCKINGTON PRINT

| | | | | | |
|---|---|---|---|---|---|
| Property 133 QUEEN HILL | District Zeehan | Hole No. G.15 | | | |
| Commenced 22/1/1972 | Location Tasmania | Tests at | Hor. Comp. 764141 | | |
| Completed 5/2/1972 | Core Size | Corr. Dip 60° | Vert. Comp. | | |
| Co-ordinates | | True Brg. 282° | Logged by D. R. Brown | | |
| Objective | | % Recov. | Date 22/1/1972-6/2/1972 | | |

| Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No. | Sha |
|---|---|---|---|---|---|---|
| | | | | | | |

| Footage From | To | Description | Sample No. | Length | Analysis Sn | Ag | Cu | Zn | Pb |
|---|---|---|---|---|---|---|---|---|---|
| | | Percussion Drilled to 99' | | | | | | | |
| 744'4" | 745'1" | Pale grey quartzite. Strongly fractured. | | | | | | | |
| | | Mineralization: Disseminated pyrite. | | | | | | | |
| 745'1" | 758'8" | Black slate with minor pale grey quartzite. Quartzite occurs as beds up to 6" | | | | | | | |
| | | thick, stringers and irregular patches. Where bedded quartzite is usually | | | | | | | |
| | | brecciated. | | | | | | | |
| | | Mineralization: Numerous irregular quartz and siderite veins (up to ¼" thick). | | | | | | | |
| | | Mild pyrite veining between 745'6" and 748' (estimate 5% - 10% of the core is | 761 - 764 | | 0·13 | 0·06 | <0·01 | <0·01 | <0·01 |
| | | sulphide). Decreasing pyrite veining between 748' and 750'10". | 764 - 768 | | 0·06 | 0·01 | <0·01 | <0·01 | <0·01 |
| 758'8" | 776'9" | Pale grey to grey quartzite and black slate. Quartzite and slate bedded and | 768 - 770 | | 0·32 | 0·12 | 0·05 | 0·05 | 0·02 |
| | | laminated, slightly contorted in places. Bedding dips at 40° at 759'1", dips 65° | 770 - 773 | | 0·33 | 0·22 | 0·04 | 0·05 | 0·02 |
| | | at 763'; dips 40° at 766'; dips 30° at 774'6". Core very broken and friable | 773 - 775 | | 0·28 | 0·30 | 0·09 | 0·02 | 0·04 |
| | | between 773'6" and 775'. | 775 - 777 | | 0·27 | 0·18 | 0·02 | 0·02 | 0·02 |
| | | Mineralization: Finely disseminated pyrite from 763' to 776'9". Pyrite veining | 777 - 781 | | 0·24 | 0·35 | 0·01 | 0·01 | 0·10 |
| | | begins at 763' and increases in intensity with depth. Between 767'8" and 776'9" | 781 - 785 | | 0·87 | 1·32 | 0·51 | 0·14 | 0·31 |
| | | estimated sulphide content is 10% - 30% overall. | 785 - 787 | | 0·25 | 0·30 | 0·03 | 0·01 | 0·03 |
| 776'9" | 789'8" | Lode Pyritic quartz lode within black slate and minor quartzite. Lode is soft | 787 - 790 | | 0·22 | 0·67 | 0·08 | 0·21 | 2·00 |
| | | and friable between 778' and 780'6", 785' and 786'6", 788' and 789'6". Estimated | 790 - 795 | | 0·36 | 0·22 | 0·01 | 0·94 | 0·03 |
| | | sulphide content of core is 50% - 85%. At 787'3" galena and siderite vein (1" | 795 - 800 | | 0·3 | 0·68 | 0·03 | 2·30 | 1·53 |
| | | thick) dips at 40°. | 800 - 801 | | 0·78 | 0·41 | 0·03 | 2·29 | 0·82 |
| 789'8" | 806'7" | Black slate with very minor fine grained pale grey quartzite. Quartzite occurs as | 801 - 805 | | 0·23 | 0·22 | 0·01 | 0·29 | 0·06 |
| | | stringers and large (up to 2" dia.) patches. Core broken throughout. Between | 805 - 807 | | 0·24 | 0·13 | 0·02 | 0·20 | 0·04 |
| | | 799'2" and 800'10" quartz and chloritic material within slate; between | 807 - 810 | | 0·29 | 0·10 | <0·01 | 0·12 | 0·02 |

COCKINGTON PRINT

| | | | | | |
|---|---|---|---|---|---|
| Property | QUEEN HILL | District | Zeehan | Hole No. | G.15 |
| Commenced | 22/1/1972 | Location | Tasmania | Tests at | |
| Completed | 5/2/1972 | Core Size | | Corr. Dip | 60° |
| Co-ordinates | | | | True Brg. | 282° |
| Objective | | | | % Recov. | |

Hor. Comp. 764142
Vert. Comp.
Logged by D. R. Brown
Date 26/1/1972-6/2/1972

| Footage From | Footage To | Description | Sample No. | Length | Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Percussion Drilled to 99' | | | | | | | | |
| | | 800'10" and 806'7" black slate is puggy and very broken; fault zone between 799'2" and 806'7". | 810 - 814 | | | | | | | |
| | | Mineralization: $FeS_2$ throughout in veins up to 1/16" thick and blebs up to ¼" dia. Pyrite veining more intense between 792' and 792'6" (estimate sulphide content is 30% - 40%); between 793' and 795'6" estimated sulphide content is 20% - 30% overall; between 793'10" and 794'4" sulphide content is estimated to be 80% - 90%, including a small vein (¼") of sphalerite and siderite; between 798' and 799'5" estimated sulphide content is 10% - 15%, with a siderite - galena vein (3/4" thick) occurring at 799'5" and dipping at -30°; between 800' and 802' strongly veined sulphide and quartz occur in black slate (no estimate of sulphide) content possible, due to broken nature of core). | 814 - 816 | | | | | | | |
| | | | 816 - 818 | | | | | | | |
| | | | 818 - 821 | | | | | | | |
| | | | 821 - 825 | | | | | | | |
| | | | 825 - 828 | | | | | | | |
| 806'7" | 813' | Fault zone. Pale grey to grey very soft puggy material. Mineralization: Very numerous and irregular pale-brown siderite veins (up to ¼" thick). Fine sparsely disseminated pyrite throughout. From 811'10" to 812'4" there is a 1½" thick pyrite vein, dip 70°. | | | | | | | | |
| 813' | 818'1" | Lode: Pyrite, quartz, siderite lode within probable black slate. Siderite abundant in places. Estimated sulphide content overall is 40% - 70%. | | | | | | | | |
| 818'1" | 825' | Pyritic black slate with very minor quartzite. Quartzite occurs as stringers and small irregular patches. Mineralization: Pyrite occurs throughout as fine veins, specks and disseminations. In places the pyrite is abundant and may comprise up to 30% of the core, although | | | | | | | | |

| Sample No. | Analysis Sn | Ag | Cu | Zn | Pb |
|---|---|---|---|---|---|
| 810 - 814 | 1·85 | 0·12 | 0·03 | 0·11 | 0·01 |
| 814 - 816 | 1·39 | 0·22 | 0·06 | 0·12 | 0·12 |
| 816 - 818 | 0·26 | 0·15 | 0·08 | 0·11 | 0·05 |
| 818 - 821 | 0·22 | 0·25 | 0·06 | 0·11 | 0·07 |
| 821 - 825 | 0·19 | 0·12 | 0·01 | 0·05 | 0·02 |
| 825 - 828 | 0·37 | 0·07 | <0·01 | 0·11 | 0·01 |

COCKINGTON PRINT

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|---|---|---|---|---|---|
| Property | QUEEN HILL | District | Zeehan | Hole No. | G.[illegible] |
| Commenced | 22/1/1972 | Location | Tasmani[illegible] | Tests at | |
| Completed | 5/2/1972 | Core Size | | Corr. Dip | 60° |
| Co-ordinates | | | | True Brg. | 282° |
| Objective | | | | % Recov. | |

Hor. Comp. 764113[illegible]
Vert. Comp.
Logged by D. R. Brown
Date 26/1/1972-6/2/1972

| Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No. |
|---|---|---|---|---|---|
| | | | | | |

| Footage From | Footage To | Description | Sample No. | Length | Analysis |
|---|---|---|---|---|---|
| | | Percussion Drilled to 99' | | | |
| | | the average sulphide content would be 20% - 30%. Pyrite vein (¼" thick) dips at | | | |
| | | 50° at 823'6". Between 824' and 825' coarser veined pyrite and siderite | | | |
| | | constitute an estimated 20% - 25% of the rock. | | | |
| 825' | 863' | Spilitic tuff. Agglomeratic in parts, light brown to pale grey in colour, | | | |
| | | amygdaloidal; amygdules are quartz or calcite filled. Occasional and calcite | | | |
| | | veins (up to ¼" thick). | | | |
| | | Mineralization: Thin lace-like pyrite veining between 828' and 828'10", and | | | |
| | | between 858'2" and 861' (Estimated sulphide content 10% - 20%). | | | |
| | | | | | |
| | | 863' | | | |
| | | END OF HOLE | | | |

COCKINGTON PRINT

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|---|---|---|---|---|---|
| Property 142 QUEEN HILL | District Zeehan | Hole No. G.16 | | | |
| Commenced 6.2.72 | Location Tasmania | Tests at | Hor. Comp. 764144 | | |
| Completed 9.2.72 | Core Size | Corr. Dip 60° | Vert. Comp. | | |
| Co-ordinates | | True Brg. 259° | Logged by D. R. Brown | | |
| Objective | | % Recov. | Date 6.2.1972-9.2.1972 | | |

| Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No. | Shee |
|---|---|---|---|---|---|---|
| | | | | | | |

| Footage From | To | Description | Sample No. | Length | Analysis |
|---|---|---|---|---|---|
| | | Percussion drilled to 100' | | | |
| 0 | 35' | Fines, 95% by volume:- pale grey to light grey soft fines. Chips, 5% by volume:- Quartz and pale grey quartzite (very rare) up to ½" dia. | | | |
| | | Rock type: Pale grey shale | | | |
| 35' | 100' | Fines, 90% by volume:- dark grey to black soft fines. Fines becoming slightly abrasive towards 100'. Chips, 10% by volume:- Quartz and uncrushed black slate chips up to ½" dia., but most chips below ¼" dia. | | | |
| | | Rock type: Black slate with minor quartzites towards 100'. | | | |
| | | Diamond drilling started at 100' using N.X. size rods. | | | |

COCKINGTON PRINT

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|---|---|---|---|---|---|
| Property | QUEEN HILL | District | Zeehan | Hole No. | G.16 |
| Commenced | 6.2.72 | Location | Tasmania | Tests at | |
| Completed | 9.2.72 | Core Size | | Corr. Dip | 60° |
| Co-ordinates | | | | True Brg. | 259° |
| Objective | | | | % Recov. | |

Hor. Comp. 764145

Vert. Comp.

Logged by D. R. Brown

Date 6.2.1972-9.2.1972

| Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No. | Sheet |
|---|---|---|---|---|---|---|
| | | | | | | |

| Footage From | Footage To | Description | Sample No. | Length | Analysis |
|---|---|---|---|---|---|
| | | Percussion drilled to 100' | | | |
| 100' | 101'4" | Pale grey quartzite. Medium grained. | | | |
| 101'4" | 115' | Black slate and light grey to grey quartzite. Slate and quartzite interbedded, laminated and contorted. Quartzite fine grained. | | | |
| | | Mineralization: Very fine disseminated pyrite throught, appears syngenetic. | | | |
| 115' | 129'6" | Pale grey to grey quartzite with minor black slate. Black slate occurs as thin beds and laminae within the quartzite and is moderately contorted. Core very broken in places, especially between 120' and 124' (possible fault zone?); | | | |
| 129'6" | 157'6" | Probable fault zone. Core recovery 2'6" which consists of heavily pyrite-veined pale grey quartzite and puggy quartz material. Pyrite vein (½" - 3/4" thick) in quartzite dips 75°, Iron and sulphur staining on quartzite fractures. | | | |
| 157'6" | 187'2" | Black pyritic shale. Core very broken with graphite on cleavage and fracture planes. | | | |
| | | Mineralization: Very fine disseminated pyrite throughout. Small pyrite blebs (up to ½" dia.) are scattered throughout. Vein of fine pyrite (½" wide) dips 75° at 176'. | | | |
| 187'2" | 197' | Light blue-grey spilitic tuff. Very broken with black graphitic pug between 187'2" and 188'10"; fault zone. Very broken between 193'6" and 197', spilite friable (probable fault zone). | | | |
| | | Mineralization: Pyrite, siderite and quartz veins (up to 3/4" thick) throughout, although siderite veining predominates. Between 187'2" and 193'6" estimated sulphide content of core is 10% - 15%. | | | |

COCKINGTON PRINT

-144

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|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Property | QUEEN HILL | District | Zeehan | Hole No. | G.16 | | | | | | | |
| Commenced | 6.2.72 | Location | Tasmania | Tests at | | Hor. Comp. | 764146 | | | | | |
| Completed | 9.2.72 | Core Size | | Corr. Dip | 60° | Vert. Comp. | | | | | | |
| Co-ordinates | | | | True Brg. | 259° | Logged by | D. R. Brown | | | | | |
| Objective | | | | % Recov. | | Date | 6.2.1972-9.2.1972 | | | | | |

| Footage From | To | Description | Sample No. | Length | Analysis Cu | Zn | Pb | Sn | Ag |
|---|---|---|---|---|---|---|---|---|---|
| | | Percussion Drilled to 100' | | | | | | | |
| 197' | 199'8" | Black slate with minor pale grey quartzite as stringers and irregular patches. | 196 | 200 | <.01 | 3.74 | .77 | .66 | .60 |
| | | Core strongly contorted and broken. | | | | | | | |
| | | Mineralization: Very numerous quartz-siderite veins (up to 3/4" in thickness). | | | | | | | |
| | | Minor pyrite specks (up to 1/16" dia.) occur in quartz-siderite veins. | | | | | | | |
| 199'8" | 202'10" | Quartz-pyrite-sphalerite lode. Lode occurs as quartz-pyrite-sphalerite veins | 200 | 202 | <.01 | 2.14 | .04 | 1.01 | .33 |
| | | within black slate. Between 201'11" and 202'10" massive pyrite-sphalerite occurs | 202 | 203 | <.01 | 20.1 | .05 | .46 | .45 |
| | | with very minor quartz. | | | | | | | |
| 202'10" | 221' | Pale grey to grey quartzite with minor black slate. Quartzite and slate | | | | | | | |
| | | interbedded and laminated in places. Where slate occurs it is broken, soft and | | | | | | | |
| | | slightly puggy. Quartzite fine to medium grained. | | | | | | | |
| | | Mineralization: Numerous, irregular quartz veins (up to 1½" thick) occur | | | | | | | |
| | | throughout. Sphalerite-pyrite vein (3" thick) occurs between 205' and 205'3". | | | | | | | |
| 221' | 234'8" | Black slate with pale grey quartzite. Quartzite occurs as individual beds up to | | | | | | | |
| | | 9" thick, laminations, stringers and irregular patches. Rock is strongly | | | | | | | |
| | | contorted. | | | | | | | |
| | | Mineralization: Thin (up to 1/8") quartz and siderite veins throughout. Rare | | | | | | | |
| | | blebs of pyrite up to 3/8? dia. Pyrite vein at 232'6" is ¼" thick and dips | | | | | | | |
| | | 60°. | | | | | | | |

.../3.

| Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No. | St |
|---|---|---|---|---|---|---|
| | | | | | | |

COCKINGTON PRINT

| | | | | | |
|---|---|---|---|---|---|
| Property 145 | QUEEN HILL | District | Zeehan | Hole No. | |
| Commenced | 6.2.72 | Location | Tasmania | Tests at | Hor. Comp. 764147 |
| Completed | 9.2.72 | Core Size | | Corr. Dip 60° | Vert. Comp. |
| Co-ordinates | | | | True Brg. 259° | Logged by D. R. Brown |
| Objective | | | | % Recov. | Date 6.2.1972-9.2.1972 |

| Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No. |
|---|---|---|---|---|---|
| | | | | | |

| Footage From | To | Description | Sample No. | Length | Analysis Cu | Zn | Pb | Sn | Ag |
|---|---|---|---|---|---|---|---|---|---|
| | | Percussion drilled to 100' | | | | | | | |
| 234'8" | 250' | Black pyritic slate. Slate soft and easily broken with graphite occurring on cleavage and fracture planes. Lineations dip 55° at 236'3"; 55° at 240'; 60° at 245'. Mineralization: Fine pyrite is disseminated throughout. Pyrite also occurs as thin veins (up to 1/16" thick) conformable with the lineations and as individual blebs (up to 3/4" dia.). A siderite vein between ½" and 1" thick occurs at 240'6" and dips 50°. A siderite-pyrite vein (½" - 3/4" thick) occurs at 242'8" and dips 65°. | | | | | | | |
| 250' | 250'7" | Pyrite-galena-sphalerite-quartz lode occurs within black slate. | | | | | | | |
| 250'7" | 266' | Black slate with pale grey siltstone. Slate and siltstone are bedded and laminated. Bedding and/or laminae dip 40° at 255'; 55° at 259'9"; 60° at 262'; 65° at 264'. Mineralization: Blebs (up to 3/4" dia., but generally -¼" dia.) of pyrite are scattered throughout. | | | | | | | |
| 266' | 274'7" | Black slate with very minor pale grey quartzite and siltstone. Quartzite and siltstone occur as laminae, stringers and irregular patches. Core very broken in places, with slate showing graphite on cleavage and fracture planes. Mineralization: Fine pyrite disseminated weakly throughout. | 272 | 274 | .01 | .03 | .01 | .40 | .07 |
| | | | 274 | 276 | .01 | .09 | .01 | .46 | .13 |
| | | | 276 | 279 | <.01 | .01 | .05 | .18 | .05 |
| | | | 279 | 283 | <.01 | .01 | <.01 | .12 | .07 |
| | | | 283 | 285 | <.01 | .01 | <.01 | .14 | .06 |
| | | .../4. | | | | | | | |

COCKINGTON PRINT

| | | | | | |
|---|---|---|---|---|---|
| Property 140 | QUEEN HILL | District Zeehan | Hole No. G.16 | | |
| Commenced | 6.2.72 | Location Tasmania | Tests at | Hor. Comp. | 764148 |
| Completed | 9.2.72 | Core Size | Corr. Dip 60° | Vert. Comp. | |
| Co-ordinates | | | True Brg. 259° | Logged by D. R. Brown | |
| Objective | | | % Recov. | Date 6.2.1972-9.2.1972 | |

| Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No. |
|---|---|---|---|---|---|
| | | | | | |

| Footage From | To | Description | Sample No. | Length | Analysis Cu | Zn | Pb | Sn | Ag |
|---|---|---|---|---|---|---|---|---|---|
| | | Percussion drilled to 100' | | | | | | | |
| 274'7" | 292'9" | Extremely pyritic black slate with pale grey fine grained quartzite and siltstone. Rock is very contorted and brecciated in places. Quartzite and siltstone occur as breccia and irregular patches (up to 1" dia.). Mineralization: The extremely pyritic slate is a dull yellow-black colour due to microscopic pyrite. Pyrite blebs (up to ½" dia.) and thin veins (up to 1/8" thick) are abundant within the pyritic slate. Pyrite blebs (up to 1/8" dia.) also occur spasmodically within the quartzite and siltstone. Estimated sulphide content overall (macroscopic) is 10% - 15%. | 285 | 287 | <.01 | .01 | <.01 | .12 | .10 |
| | | | 287 | 289 | <.01 | .01 | <.01 | .10 | .8 |
| | | | 289 | 291 | <.01 | .01 | <.01 | .10 | .12 |
| | | | 291 | 293 | .02 | .01 | <.01 | .08 | .12 |
| 292'9" | 302' | Spilitic tuff, light green-grey in colour. Amygdaloidal throughout, amygdules (up to 1/8" dia.) being filled with quartz and calcite. Flow structures readily observable. Spilite appears conformable with slates, contact dipping 35° at 292'9" and 45° at 302'. Mineralization: Both planar and irregular siderite veins occur spasmodically. Very rare pyrite aggregates up to ¼" dia. | | | | | | | |
| 302' | 352' | Pyritic black slate with very minor stringers and irregular patches of pale grey quartzite, mainly occurring between 302' and 307'. Mineralization: Fine pyrite is disseminated throughout. Pyrite also occurs as irregular thin veins (up to 1/16" thick) and as individual blebs (up to ½" dia.). Siderite veins up to ½" thick occur between 333' - 333'3" and dip at 50°. Quartz veins (up to 3/8" thick) occur spasmodically. | | | | | | | |
| | | .../5. | | | | | | | |

COCKINGTON PRINT

No. 147

| | | | | | |
|---|---|---|---|---|---|
| Property | QUEEN HILL | District | Zeehan | Hole No. | G.16 |
| Commenced | 6.2.72 | Location | Tasmania | Tests at | |
| Completed | 9.2.72 | Core Size | | Corr. Dip | 60° |
| Co-ordinates | | | | True Brg. | 259° |
| Objective | | | | % Recov. | |

Hor. Comp. 764'19

Vert. Comp.

Logged by D. R. Brown

Date 6.2.1972-9.2.1972

| Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No. |
|---|---|---|---|---|---|
| | | | | | |

| Footage From | To | Description | Sample No. | Length | Analysis Cu | Zn | Pb | Sn | Ag |
|---|---|---|---|---|---|---|---|---|---|
| | | Percussion drilled to 100' | | | | | | | |
| 352' | 377'6" | Spilitic tuff. Pale grey spilitic tuff, agglomeratic and amygdaloidal. | 376 | 378 | <.01 | .08 | .24 | .12 | .12 |
| | | Amygdules quartz or calcite filled. Occasional irregular calcite veins up to | 378 | 379 | <.01 | .40 | .16 | .18 | .15 |
| | | 1/8" thick. At 356'8", agglomeratic bed dips 370°. | 379 | 380 | .01 | .05 | .01 | .20 | .12 |
| | | Mineralization: fine pyrite aggregates between 372'2" - 379' (estimated pyrite | 380 | 381 | .02 | .80 | .38 | .14 | .17 |
| | | content 5 - 10%). | 381 | 382 | .01 | 1.10 | .53 | .19 | .18 |
| 377'6" | 379' | Siderite lode, within fragmentary black slate. Siderite light brown with | 382 | 383 | <.01 | .35 | .38 | .22 | .17 |
| | | crystals up to 3/4" wide discernable. Estimated siderite content 60 - 80%. | 383 | 384 | <.01 | .63 | .23 | .42 | .20 |
| 379' | 380' | Splitic tuff (as between 352' - 377'6"). | 384 | 385 | <.01 | .05 | .24 | 1.82 | .22 |
| 380' | 387'10" | Irregular very fine pyrite lode. Very fine pyrite as solid masses and patches | 385 | 386 | <.01 | .05 | .23 | .13 | .22 |
| | | within a light grey quartzite. Siderite also present. The pyrite is similar | 386 | 387 | <.01 | .43 | .15 | .12 | .15 |
| | | to that encounted between 274'7" - 292'9". Estimated pyrite content of rock | 387 | 388 | .01 | 1.19 | .28 | .14 | .22 |
| | | overall: 40 - 50%. | 388 | 390 | <.01 | .42 | .28 | .16 | .13 |
| 387'10" | 390' | Siderite lode. Irregular veins and particles of siderite within a broken slate- | | | | | | | |
| | | quartzite rock. Siderite crystals up to 3/4" thick discernable. Estimated | | | | | | | |
| | | siderite content: 30 - 40%. | | | | | | | |
| 390' | 405'8" | Black siliceous slate (very hard) with light grey quartzites and siltstones. | | | | | | | |
| | | Very numerous and irregular siderite and quartz veins throughout, the veins | | | | | | | |
| | | being up to 1" thick, but generally between 1/16" - 1/8" thick. | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | .../6. | | | | | | | |
| | | | | | | | | | |

COCKINGTON PRINT

| | | | | | |
|---|---|---|---|---|---|
| Property 143 QUEEN HILL | District Zeehan | Hole No. G.16 | | | |
| Commenced 6.2.72 | Location Tasmania | Tests at | | Hor. Comp. 764150 | |
| Completed 9.2.72 | Core Size | Corr. Dip 60° | | Vert. Comp. | |
| Co-ordinates | | True Brg. 259° | | Logged by D. R. Brown | |
| Objective | | % Recov. | | Date 6.2.1972-9.2.1972 | |

| Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No. |
|---|---|---|---|---|---|
| | | | | | |

| Footage From | To | Description | Sample No. | Length | Analysis |
|---|---|---|---|---|---|
| | | Percussion Drilled to 100' | | | |
| 405'8" | 419'6" | Spilitic tuff. Pale grey to brownish grey spilitic tuff, both agglomeratic and amygdaloidal, but mainly amygdaloidal. Amygdules of quartz and calcite up to 1/8" dia. Flowage structure evident in places. Irregular veins of calcite present. Appears to become slate like between 417'1" - 418'2". | | | |
| 419'6" | 434'10" | Grey to light greeny grey fine grained quartzite. Hard. Very numerous and irregular quartz and siderite veins up to ½" thick throughout. | | | |
| 434'10" | 438'4" | Interbedded fine grained quartzites (cream colour) with grey fine grained quartzites. Beds dip at an average of 40° when not mildly contorted or fractured. | | | |
| 438'4" | 452'2" | Hard black slate and pale grey to grey medium grained quartzites. Slates and quartzites interbedded and laminated; in places slightly contorted. Where not contorted beds and laminae dip 20° at 443'; 5° at 444'; 75° at 446'4"; 70° at 449'; 45° at 451'5". Mineralization: Sparse irregular siderite veins throughout. A siderite vein (3/4" thick) at 451'2" dips 50°. | | | |
| 452'2" | 453'8" | Hard green-grey spilite. Amygdaloidal; dark green amygdules up to 1/8" dia., with veins (up to 1/8" thick), specks and irregular patches of siderite and calcite. Spilite appears conformable with the sediments. | | | |
| 453'8" | 454'5" | Hard black slate and pale grey quartzite, (as between 458'4" - 452'2"). | | | |
| 454'5" | 456'3" | Hard green-grey spilate (as between 452'2"-453'8"). The contact with the sediments at 454'5" dips 35°. | | | |

.../7

COCKINGTON'S PRINT

| | | | | | |
|---|---|---|---|---|---|
| Property 143 | QUEEN HILL | District | Zeehan | Hole No. | G.16 |
| Commenced | 6.2.72 | Location | Tasmania | Tests at | |
| Completed | 9.2.72 | Core Size | | Corr. Dip | 60o |
| Co-ordinates | | | | True Brg. | 259° |
| Objective | | | | % Recov. | |

Hor. Comp. 764'51

Vert. Comp.

Logged by D. R. Brown

Date 6.2.1972-9.2.1972

| Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No. | Sheet |
|---|---|---|---|---|---|---|
| | | | | | | |

| Footage From | To | Description | Sample No. | Length | Analysis |
|---|---|---|---|---|---|
| | | Percussion Drilled to 100' | | | |
| 456'3" | 460' | Hard black slate and pale grey quartzite. Slates and quartzites interbedded and laminated; average dip of beds and laminae is 50°. | | | |
| | | 460' End of Hole | | | |
| | | Survey results: Collar 259° bearing 60° inclination | | | |
| | | 100' 60° inclination (acid tube) | | | |
| | | 200' 325° (mag.) 62° inclination (Tropari) | | | |
| | | 325' 271° 61° inclination (Tropari) | | | |
| | | 450' 255° 58° inclination (Tropari) | | | |

COCKINGTON PRINT

72-865

764152

# APPENDIX 3

## DRILLING RESULTS - G.19, G.20, MONTANA AREA

Diamond drill hole Nos. G.19 and G.20 were sited to test the major quartz-pyrite-siderite mineralization previously reported by Twelvetrees and Ward (1910) and Waller (1904) as being located between the No.1 and No.2 lodes of the Montana No.2 workings.

### Bore Hole G.19

This hole located only sporadic mineralization, but gave sufficient information to justify a further bore hole down dip.

### Bore Hole G.20

Bore hole G.20 was sited down dip from G.19, and located a major quartz-pyrite-siderite lode over a drilled thickness of 55'3" between 430'9" and 486'.

Initial unconfirmed assay results indicate that tin is present, and these results will be forwarded to you on receipt.

151

72-865

| | | | | | |
|---|---|---|---|---|---|
| Property | QUEEN HILL | District | INTERNATIONAL | Hole No. | G.19 |
| Commenced | 8th April, 1972 | Location | ZEEHAN, TASMANIA | Tests at | |
| Completed | | Core Size | 'H' 'O' | Corr. Dip | 50° |
| Co-ordinates | | | | True Brg. | 282°M |
| Objective | To intersect massive pyrite at 350' between two lodes. | | | % Recov. | |

Hor. Comp. 764153
Vert. Comp.
Logged by P.O'S D.R.B.
Date 25.4.-29.4.1972

Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No. | Sheet

| Footage From | Footage To | Description | Sample No. | Length | Analysis |
|---|---|---|---|---|---|
| 0' | 39' | No recovery except for six quartzite pebbles; overburden. | | | |
| 39' | 41' | Grey Slates: grey to pale grey slates, dip of bedding vertical. Frequent soft clay zones throughout. Core very broken up into 1/8"-1/2" pieces. Recovery 50%. | | | |
| 41' | 84' | Cream-grey to purple interbedded mudstones and shales: very pale grey-purple and pale cream mudstones and shales, beds dip at 70° from 41'-60', at 50° from 60'-65' and at 70° from 65'-84'. Beds are frequently decomposed to a soft clay - some of the soft clay is probably fault pug. Recovery 50% from 41'-70', 5% from 70'-75', 50% from 75'-84'. Core mostly very broken. | | | |
| 84' | 90' | Greywacke and quartzite: grey-dark, greywacke with shale, quartzite pebbles, and irregular siderite veining (two pieces of core-ore 1/2" long, other 3" long), remainder of core is pale grey-cream re-crystallized quartzite with irregular siderite veins. Recovery 20%. | | | |
| 90' | 114' | Pale cream-grey mudstones and shales: very pale cream-grey to purple interbedded mudstones and shales. Beds dip at 75°, poorly cleaved. Core very broken with soft clay patches from 98'-100', broken from 102'6"-105' and from 110'-114'. Recovery poor in broken sections. | | | |
| 114' | 138' | Grey to dark grey chert: grey to dark grey hard chert beds, bedding at 126', dips at 75° from 127'-132' beds are siliceous indurated siltstones and mudstones, grey to cream. Recovery 20% from 132'-138'. | | | |
| 138' | 141' | Sand and Gravel: ) (Stope from 138'-152'6") | | | |
| 141' | 153' | 6" of indurated mudstone with gravel stuck to at end of run:) | | | |

COCKINGTON PRINT

152

| | | | |
|---|---|---|---|
| Property Queen Hill | District International | Hole No. G.19 | |
| Commenced 8th April, 1972 | Location Zeehan, Tasmania | Tests at | Hor. Comp. 764154 |
| Completed | Core Size 'H' 'O' | Corr. Dip 50° | Vert. Comp. |
| Co-ordinates | | True Brg. 282°M | Logged by P.O'S D.R.B. |
| Objective To intersect massive pyrite at 350' between two lodes | | % Recov. | Date 25.4-29.4.1972 |

Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No. | Sheet

| Footage From | Footage To | Description | Sample No. | Length | Analysis |
|---|---|---|---|---|---|
| 153' | 161' | Pale cream indurated mudstones: hard pale cream indurated mudstone, dip of bed not discernible, occasional irregular 1/16-1/8" thick quartz veins and soft clay zones. Rolled quartzite pieces from 139'-161' - core recovery 10%. Mineralization: 2 1/4" blebs of galena in rolled quartzite between 159' and 161'. | | | |
| 161' | 167' | 1/2" thick black siltstone , then greywacke: Recovery only 5%, dip of bedding in siltstones 40° - Some $FeS_2$ specks in siltstone. Greywacke as 1/4"-1" rolled pieces. | | | |
| 167' | 182' | Pyritic black shales and fine grained grey quartzites: Beds dip at 45°-65°, beds from 167'-173'6" frequently have included brecciated fragments and pieces of slate and quartzite 1/16"-1" across. Mineralization: $FeS_2$ as specks and slabs throughout brecciated beds, and forming distinct beds 1/16"-1/2" thick. $FeS_2$ content varies between approx. 1% and 10% of core. Occasional irregular 1/16"-1/2" thick quartz and calcite veins. Siderite slabs in calcite veins at 182'. | | | |
| 182' | 187' | Pale grey quartzite: pale grey massive quartzite, bedding not distinguishable. Irregular 1/16"-1/8" thick quartz and calcite veins scattered throughout. Galena speck at 182'. | | | |
| 187' | 209' | Black Slates: black slates, graphitic in parts, occasional 1/8"-1/2" thick grey quartzites. Beds contorted, dip at 50°-90°, average of 70°. Occasional 1/16" thick irregular quartz and siderite veins, veining becoming more abundant with depth from 205'. Recovery from 207'-209' - 30%. | | | |

COCKINGTON PRINT

153

| | | | |
|---|---|---|---|
| Property Queen Hill | District International | Hole No. G.19 | |
| Commenced 8th April, 1972 | Location Zeehan, Tasmania | Tests at | Hor. Comp. 764155 |
| Completed | Core Size 'H' 'O' | Corr. Dip 50° | Vert. Comp. |
| Co-ordinates | | True Brg. 282°M | Logged by P.O'S D.R.B. |
| Objective To intersect massive pyrite at 350' between two lodes | | % Recov. | Date 25.4 -29.4.1972 |

Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No. | Sheet

| Footage From | Footage To | Description | Sample No. | Length | Analysis |
|---|---|---|---|---|---|
| | | **Mineralization**: 1/4" irregular $FeS_2$ galena-siderite veing at 194'. $FeS_2$ specks in irregular quartz veins from 205'-209'. 6" of quartz-$FeS_2$ lode with included slate at 208'6". | | | |
| 209' | 214' | **Stope**: No core recovery ) Stope probably from 209'-214'6" | | | |
| 214' | 215' | 1" of wood and six pieces of rolled slate: ) | | | |
| 215' | 226' | **Grey-slack slates and quartzites**: abundant irregular quartz-siderite veining, with $FeS_2$ specks, recovery 10%. Two runs of core from 215'-227' as casing did not locate drill hole on footwall side of stope. Started coring again at 214'6", core similar to previous in lithology. | | | |
| 226' | 228'6" | **Quartz-siderite lode**: massive cream-white-siderite and quartz with rare specks of galena. | | | |
| 228'6" | 244'3" | **Interbedded black slates and grey quartzites**: slate beds weathered to soft clay, mostly due probably to faulting. Beds highly contorted, frequent irregular siderite veins in quartzites from 236'-239'. Recovery 60% from 233'6"-239', elsewhere only 20%. | | | |
| 244'3" | 259' | **Black slates**: slates slightly weathered and very broken, puggy in places, probably due to faulting. Very minor sparse irregular siderite and quartz veins. Recovery 50%. | | | |
| 259' | 265' | **Interbedded black and grey slates with minor grey quartzites**: Beds highly contorted and slightly brecciated. Siderite has replaced quartzite in contorted beds. | | | |
| 265' | 268'3" | **Grey cherty siltstone**: moderately soft, unbedded core. Numerous thin irregular siderite veins. | | | |

COCKINGTON PRINT

154

| | | | |
|---|---|---|---|
| Property Queen Hill | District International | Hole No. G.19 | |
| Commenced 8th April, 1972 | Location Zeehan, Tasmania | Tests at | Hor. Comp. 764156 |
| Completed | Core Size 'E' 'O' | Corr. Dip 50° | Vert. Comp. |
| Co-ordinates | | True Brg. 282°M | Logged by P.O'S D.R.B. |
| Objective To intersect massive pyrite at 350' between two lodes | | % Recov. | Date 25.4-29.4.1972 |

Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No. | Sheet

| Footage From | To | Description | Sample No. | Length | Analysis |
|---|---|---|---|---|---|
| 268'3" | 270' | Black slate: broken throughout, puggy in places, slightly cherty. Small irregular siderite veins and blebs. | | | |
| 270' | 276' | Light grey cherty mudstone: relatively soft. Numerous irregular siderite veins throughout. Siderite veins 1/4"-5/8" thick with galena and sphalerite dip 70° at 276'. No bedding observable. | | | |
| 276' | 300' | Light grey-grey quartzite and minor cherty mudstone: bedding dips 35° at 278'3", 45° at 285'. Core broken in places, but generally unbroken and hard. Numerous irregular siderite veins up to 1/4" thick throughout, slightly vuggy at 290'6". | | | |
| 300' | 315' | Light grey cherty mudstone: relatively soft. Recovery poor - 30%. Core contains ground quartzites, probably fell from higher in bore. Pyritic pug 309'9"-310". Possible stope 310'-315'. | | | |
| 315' | 333'9" | Grey to black quartzite: hard and exhibits occasional bedding, at 327' beds dip at 45°. Mineralization: Strong quartz, siderite veining with associated pyrite, occurs between 316'6"-316'11", 320'-321', 321'-321'7", specks of galena 323'-323'8", with sphalerite, little siderite, 325'-326', pyrite also occurs disseminated as fine specks through the quartzite, mainly between 327'-333'9" where estimated pyrite content is 5-10%. | | | |
| 333'9" | 343'6" | Black slate with interbedded grey quartzite: very strongly contorted and brecciated in places. Puggy and broken in places, recovery overall 55-60%. | | | |

COCKINGTON PRINT

155

| | | | |
|---|---|---|---|
| Property Queen Hill | District International | Hole No. Q.19 | |
| Commenced 8th April, 1972 | Location Zeehan, Tasmania | Tests at | Hor. Comp. 764157 |
| Completed | Core Size 'H' 'O' | Corr. Dip 50° | Vert. Comp. |
| Co-ordinates | | True Brg. 282°M | Logged by P.O'S D.R.B. |
| Objective To intersect massive pyrite at 350' between two lodes | | % Recov. | Date 25.4-29.4.1972 |

Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No. | Sheet

| Footage From | To | Description | Sample No. | Length | Analysis |
|---|---|---|---|---|---|
| | | Mineralization: Pyrite, quartz vein 1/4"-3/4" wide, dips 20° at 341'; other irregular pyrite veins up to 1/4" thick spasmodically distributed. | | | |
| 343'6" | 354' | Pyritic black slate and minor dark grey quartzite: slightly contorted. Pyrite occurs as finely disseminated specks and blebs (up to 1/2" dia.) and thin (up to 1/8" thick) short irregular veins. Coarser pyrite specks are confined to the contorted quartzite. Estimated pyrite content 10-20%. Pyrite appears to be of a remobilised syngenetic origin between 352'6"-354' estimated pyrite content 20-30%. | | | |
| 354' | 355'6" | Pyrite, quartz, minor galena lode: galena as fine, wide (up to 3/4") veins within pyrite. Estimated sulphide content 65-75%. | | | |
| 355'6" | 359'4" | Same as 343'6"-354'. Very broken between 356'6"-359'4". Pyrite vein at 357'4", 1/2" thick. | | | |
| 359'4" | 380' | Black slate with interbedded grey to dark grey quartzite: slated and quartzite, usually laminated or finely interbedded where not quartzite beds up to 8" thick. Except for thick quartzite beds, core mildly to strongly contorted, with numerous very irregular quartz veins. Where discernible, laminations dip at 50° at 361' and 45° at 369'. | | | |
| | | Mineralization: occasional blebs (up to 1/2" dia.) and associated veining of pyrite. Small galena, siderite veins (1/8") associated with web-like and disseminated pyrite mineralization between 365'7"-366'6" in quartzite. Galena siderite vein (1/8") dips approx. 65° at 372'4". | | | |

COCKINGTON PRINT

156

| | | | |
|---|---|---|---|
| Property Queen Hill | District International | Hole No. G.19 | |
| Commenced 8th April, 1972 | Location Zeehan, Tasmania | Tests at | Hor. Comp. 764158 |
| Completed | Core Size 'H' 'O' | Corr. Dip 50° | Vert. Comp. |
| Co-ordinates | | True Brg. 282°M | Logged by P.O'S D.R.B. |
| Objective To intersect massive pyrite at 350' between two lodes | | % Recov. | Date 25.4-29.4.1972 |

Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No. | Sheet

| Footage From | Footage To | Description | Sample No. | Length | Analysis |
|---|---|---|---|---|---|
| 380' | 397' | Weak pyrite, quartz, galena and siderite lode: with contorted black slate and grey quartzite. Pyrite disseminated and as veins and larger masses, particularly in quartzite. Galena as veins up to 1" thick associated with siderite. Overall estimate of sulphide content 15-20%. Between 392'-393'6" estimated sulphide content 60-70%. Probable Stope between 387'-392', recovery very poor - 10%. | | | |
| 397' | 430' | Black slate and light grey quartzite: quartzite rarely as individual beds wholly as stringes and irregular patches. Slate and quartzite strongly contorted. Probable fault between 416'-417'4" - core broken and puggy. Siderite and quartz veins very irregularly distributed throughout. Mineralization: siderite and quartz veins usually contain some fine pyrite between 425'3"-425'10" - pyrite, sphalerite, siderite and green opaline material - estimated sulphide content 50%. Pyrite also occurs as individual blebs and associated fine veins in occasional places. | | | |

SURVEY RESULTS:

| | Depth | Dip | Bearing |
|---|---|---|---|
| Tropari | 100' | 48° | 281° |
| Tropari | 200' | 47° | 281° |
| Tropari | 216' | 39° | 281° (inside rods) |
| Tropari | 300' | 47° | 284° |
| Acid Tube | 200' | 42° | |
| | 300' | 45° | |
| | 400' | 46° | |

COCKINGTON PRINT

# Drill Hole Record

157

72-865

| | | | | | |
|---|---|---|---|---|---|
| Property | Queen Hill Area | District | | Hole No. | G.20 |
| Commenced | ~~29th April, 1972~~ | Location | ~~Zeehan, Tasmania~~ | Tests at | |
| Completed | 13th May, 1972 | Core Size | ~~HQ, NQ.~~ | Corr. Dip | 52° |
| Co-ordinates | 11,553N, 8003W | | | True Brg. | 282° Magnetic |
| Objective | ~~To intersect massive quartz-pyrite lode between 2 lodes~~ | | | % Recov. | |

Hor. Comp. 764159

Vert. Comp.

Logged by D.R. Brown

Date 1.5.72-14.5.72

Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No. | Sheet

| Footage From | Footage To | Description | Sample No. | Length | Analysis |
|---|---|---|---|---|---|
| 0 | 30' | Used tri-cone bit. No core recovery. | | | |
| 30 | 90' | Grey-black slates: soft, friable, very broken, weathered. Core recovery ~~50%~~. Between 30'-50'. Quartzite stringers and patches nearing 90'. | | | |
| 90' | 97' | Black slates and light grey-grey quartzite: interbedded and laminated in places. Core soft, friable, weathered. Very broken in places. | | | |
| 97' | 110' | Grey-black slate with light grey quartzite: slate and quartzite interbedded and laminated. Core midly contorted, with very numerous irregular quartz veins up to ½" thick. Core slightly weathered. Slate becoming pyritic. | | | |
| 110' | 119'6" | Pyritic grey-black slate: laminated in places. Pyrite very fine, disseminated and as pyrite beds up to 1/16" thick in black slate. Pyrite blebs up to 1/2" dia. also present laminations dip at between 75°-90°. Core only slightly weathered. | | | |
| 119'6" | 134' | Light grey-grey quartzite with interbedded grey-black slate: slate laminated and contorted. Core slightly weathered, with joint planes and fractures carrying a red-orange iron coating. Spasmodic, generally planar quartz veins up to 3/8" thick. | | | |
| 134' | 151' | Light grey quartzite: numerous irregular quartz veins randomly distributed. Red-orange iron coating on joints and fractures up to 147'. | | | |
| 151' | 167' | Grey-black slate with interbedded grey quartzite: ~~Planar quartz veins throughout.~~ Grey-black slate exhibits a patchy texture in places. | | | |

COCKINGTON PRINT

# Drill Hole Record



158

| | | | |
|---|---|---|---|
| Property Queen Hill Area | District | Hole No. G.20 | |
| Commenced 29th April, 1972 | Location Zeehan, Tasmania | Tests at | Hor. Comp. 764160 |
| Completed 13th May, 1972 | Core Size HQ, NQ. | Corr. Dip 52° | Vert. Comp. |
| Co-ordinates 11,553N,8003W | | True Brg. 282° Magnetic | Logged by D.R.Brown |
| Objective To intersect massive quartz-pyrite lode between 2 Lodes | | Recov. | Date 1.5.72-14.5.72 |

Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No. | Sheet

| Footage From | To | Description | Sample No. | Length | Analysis |
|---|---|---|---|---|---|
| 167' | 177'10" | Grey-black slate with very minor quartzite: quartzite as stringers and patches. Black slate finely pyritic; pyrite disseminated (very fine) and as occasional irregular segregations and blebs. Core unweathered. Sparse planar quartz veins up to 1/4" thick. | | | |
| 177'10" | 215'6" | Light grey quartzite with very minor grey-black slate: web-like slate squeezes in quartzite in places, elsewhere slate apparently interbedded with quartzite. Sparse, irregular patchy siderite and quartz veins. | | | |
| 215'6" | 275' | Black slate with minor dark grey quartzite: quartzite principally as stringers and patches. Core broken in places, mildly contorted in places. Bedding dips at 70° at 216'8", 70° at 268'. Quartz veins prolific between 217'-218' in quartzite. Core broken and puggy between 220'-226', and between 269'-273', possible fault zones. Slate becoming lighter in colour towards 275'. | | | |
| | | Stope: 241'-250'. Lost circulation, very stiff rods, zero core recovery. | | | |
| 275' | 284' | Light grey slate with interbedded light grey slightly dolomitic siltstone: bedding dips approximately 55° where discernible. Numerous irregular quartz and carbonate veins up to 1/4" thick. | | | |

COCKINGTON PRINT

153

| | | | | | |
|---|---|---|---|---|---|
| Property | Queen Hill Area | District | Hole No. | G.20 | 764161 |
| Commenced | 29th April, 1972 | Location Zeehan, Tasmania | Tests at | | Hor. Comp. |
| Completed | 13th May, 1972 | Core Size HQ, NQ. | Corr. Dip | 52° | Vert. Comp. |
| Co-ordinates | 11,553N,8003W | | True Brg. | 282° Magnetic | Logged by D.R. Brown |
| Objective | To intersect massive quartz-pyrite lode between 2 lodes | | % Recov. | | Date 1.5.72-14.5.72 |

Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No. | Sheet

| Footage From | Footage To | Description | Sample No. | Length | Analysis |
|---|---|---|---|---|---|
| 284' | 328' | Light grey to grey dolomitic siltstone: rock hard and unweathered. No bedding observable, rock remarkably homogeneous and undisturbed. Numerous planar carbonate (mainly calcite) veins, up to 1/2" wide - very fine and web-like in places. Mineralization: Siderite veining between 292'-293'. | | | |
| 328' | 341'6" | Light grey dolomitic siltstone: cherty and graphitic in places. Graphite appears as fracture and joint fillings, the cherty and slightly opaline material as patches and large blebs, usually associated with the graphite. Numerous, very irregular thin carbonate veins up to 1/8" thick throughout. | | | |
| 341'6" | 351' | Grey pinkish cherty & pebbly siltstone: Pinkish chert occurs interbedded with very finely laminated grey-green to grey-cream siltstone. Chert beds up to 8" thick, usually approximately 1/2" thick. Fine pebble beds, up to 3/4" thick, with pebbles up to 1/4" dia. within a matrix of siltstone. Core very mildly contorted in places. Overall, bedding dips at an average of 40°-45°. Mineralization: Very finely crystalline pyrite segregations occuring towards 351'. Carbonate veins (mainly calcite) occur spasmodically and prolifically in chert between 342'4"-343'. | | | |
| 351' | 365'6" | Grey-black pyritic slate and patchy grey quartzite: pyrite occurs as very fine specks in beds of slate and as blebs and segregations up to 1/2" dia. in quartzite. Quartzite is impure (silty) and occurs as squeezes, patches, and stringers. Some beds mildly contorted and broken. Bedding dips at an average of 40°-45°. Between 352'4"-353" and 355'6"-356'6" core broken and puggy - fault zones. Numerous, irregular veins up to 3/4" thick of siderite and calcite. | | | |

COCKINGTON PRINT

# Drill Hole Record



160

| | | | |
|---|---|---|---|
| Property Queen Hill Area | District | Hole No. G.20 | |
| Commenced 29th April, 1972 | Location Zeehan, TASMANIA | Tests at | Hor. Comp. 764162 |
| Completed 13th May, 1972 | Core Size HQ, NQ. | Corr. Dip 52° | Vert. Comp. |
| Co-ordinates 11, 553N, 8003W | | True Brg. 282° Magnetic | Logged by D.R. Brown |
| Objective To intersect massive quartz-pyrite lode between 2 lodes | | % Recov. | Date 1.5.72-14.5.72 |

Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No. | Sheet

| Footage From | To | Description | Sample No. | Length | Analysis |
|---|---|---|---|---|---|
| 365'6" | 397' | Weakly pyritic black slate: pyrite disseminated as very fine, individual crystals throughout, black slates estimated pyrite content 1-2%. Slate broken in places and contains rare, irregular siderite veins up to 1/4" thick. At 369', quartz-siderite vein 2" thick, dips 50°. | | | |
| | | Stope: 390'-395'. No core recovery. Lost drilling pressure. | | | |
| 397' | 430'9" | Light grey-grey slate and grey f.g. quartzite: slate and quartzite laminated. Very fine pyrite disseminated throughout - estimated pyrite content - < 1/2%. Rock is uncontorted for most part, bedding dips 65° at 397'6", 80° at 402', 70° at 406', 90° at 408', 70° at 412', 90° at 418', 85° at 423', 70° at 427'. Core broken and puggy between 414'6"-415'6"; 425'-426'3"; fault zones. Mineralization: occasional pyrite blebs, segregations (up to 1/2" dia.) and thin veins (up to 1/8" thick). Irregularly distributed planar (not with bedding) siderite veins up to 1/2" thick. | | | |
| 430'9" | 436' | Pyrite, siderite, quartz, minor sphalerite lode: occurs as follows: | | | |
| | | 430'9"-455' Pyrite, quartz, siderite. Estimated pyrite content 30-90%. Overall average 65%. | | | |
| | | 455' -468' Quartz, siderite and minor sphalerite and pyrite. A black material is occasionally present as inclusions up to 1/2" wide in quartz - possibly a chromium mineral. Estimated sulphide content 0-5%, overall average 1-2%. Between 462'-464', a very hard | | | |

COCKINGTON PRINT

# Drill Hole Record

161

Property Queen Hill Area | District | Hole No. G.20

Commenced 29th April, 1972 | Location Zeehan, Tasmania | Tests at | Hor. Comp. 764163

Completed 13th May, 1972 | Core Size HQ, NQ. | Corr. Dip 52° | Vert. Comp.

Co-ordinates 11,553N,8003W | True Brg. 282° Magnetic | Logged by D.R. Brown

Objective To intersect massive quartz-pyrite lode between 2 lodes | % Recov. | Date 1.5.72-14.5.72

Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No. | Sheet

| Footage From | To | Description | Sample No. | Length | Analysis |
|---|---|---|---|---|---|
| | | chocolate brown chert occurs, which is mineralized with thin siderite veins. | | | |
| | | 468' -469'10" Pyrite, quartz, siderite. Estimated pyrite content 90-95% | | | |
| | | 469'10"-473'6" Siderite, quartz, pyrite, minor sphalerite. Estimated sulphide content 5%. | | | |
| | | 473'6" -474'6" Pyrite, siderite, quartz, minor sphalerite. Estimated sulphide content 50%. | | | |
| | | 474'6" -477'9" Siderite, quartz, pyrite. Estimated pyrite content 5%. | | | |
| | | 477'9" - 486' Pyrite, siderite, sphalerite, minor quartz. Estimated sulphide content 50-60% overall. | | | |
| 486' | 504' | Black slate with grey quartzite: slate and quartzite interbedded and laminated markedly uncontorted. Bedding dips 30° at 490', 40° at 493', 50° at 498'. Core broken and slightly puggy between 499'-501'6": possible fault zone. Contact with quartzite at 504' dips approx. 55°. | | | |
| | | Mineralization: irregular pyrite veins (up to 1/8") associated with siderite and sphalerite, together with pyrite blebs, spasmodically distributed. More specifically broken pyrite veins occur between 500'6"-501'6" and 503'7"-504'. | | | |
| 504' | 570' | Light grey-grey black quartzite: hard, medium grained, exhibits very slight contorted bedding occasionally. | | | |

COCKINGTON PRINT

Drill Hole Record

162

| | | | | | |
|---|---|---|---|---|---|
| Property | Queen Hill Area | District | | Hole No. | G.20 |
| Commenced | 29th April, 1972 | Location | Zeehan, Tasmania | Tests at | |
| Completed | 13th May, 1972 | Core Size | HQ, NQ. | Corr. Dip | 52° |
| Co-ordinates | 11,553N,8003W | | | True Brg. | 282° Magnetic |
| Objective | To intersect massive quartz-pyrite lode between 2 lodes | | | % Recov. | |

Hor. Comp. 764164
Vert. Comp.
Logged by D.R. BRown
Date 1.5.72-14.5.72

| Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No. | Sheet |
|---|---|---|---|---|---|---|
| | | | | | | |

| Footage From | Footage To | Description | Sample No. | Length | Analysis |
|---|---|---|---|---|---|
| | | Mineralization: web-like pyrite veining irregularly distributed between 504'-530', with very finely disseminated pyrite specks throughout. Stronger pyrite veining occurs at: 519'-519'9" pyrite veins and disseminations, estimate sulphide content 10-15%, at 527'2", 3/8" pyrite vein dips 35°, at 536'-537'3", quartz, siderite veining in brecciated quartzite. | | | |
| 570' | 578' | Light grey quartzite with minor interbedded black slate: slate very broken. Fine irregular quartz veins throughout. Veins of pyrite coming in near 578'. | | | |
| 578' | 622' | Black slate with minor light grey-grey quartzite: quartzite occurs as stringers and patches within contorted slate - rarely as individual beds. Quartz and siderite veins (up to 3/4" thick) occur spasmodically, but increase in intensity in the rare individual quartzite beds. Core extremely broken and puggy between 596'-609'. Between 605'-607' zero core recovery, rods became tight, lost circulation. Possible stope or very strong unmineralized fault - No.2 lode. Mineralization: Occasional pyrite blebs up to 1/2" in dia. and veins (up to 1/4" thick), associated with quartz and siderite veins. | | | |
| | | END OF HOLE | | | |

COCKINGTON PRINT

163

| | | | |
|---|---|---|---|
| Property Queen Hill Area | District | Hole No. G.20 | |
| Commenced 29th April, 1972 | Location Zeehan, Tasmania | Tests at | Hor. Comp. 764165 |
| Completed 13th May, 1972 | Core Size HQ, NQ. | Corr. Dip 52° | Vert. Comp. |
| Co-ordinates 11,553N,8003W | | True Brg. 282° Magnetic | Logged by D.R. Brown |
| Objective To intersect massive quartz-pyrite lode between 2 lodes | | % Recov. | Date 1.5.72-14.5.72 |

Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No. | Sheet

| Footage From | Footage To | Description | Sample No. | Length | Analysis |
|---|---|---|---|---|---|

SURVEY RESULTS

| | Depth | Dip | Bearing |
|---|---|---|---|
| Tropori | 100' | 53° | 292° |
| Tropori | 200' | 52° | 289° |
| Tropori | 300' | 52° | 180° |
| Tropori | 400' | 51° | 284° |
| Tropori | 500' | 37° | 284° |
| Acid Tube | 500' | 50° | |
| Acid Tube | 600' | 49° | |

COCKINGTON PRINT

PLANS:

PLAN OF ZEEHAN AREA (TEXT)

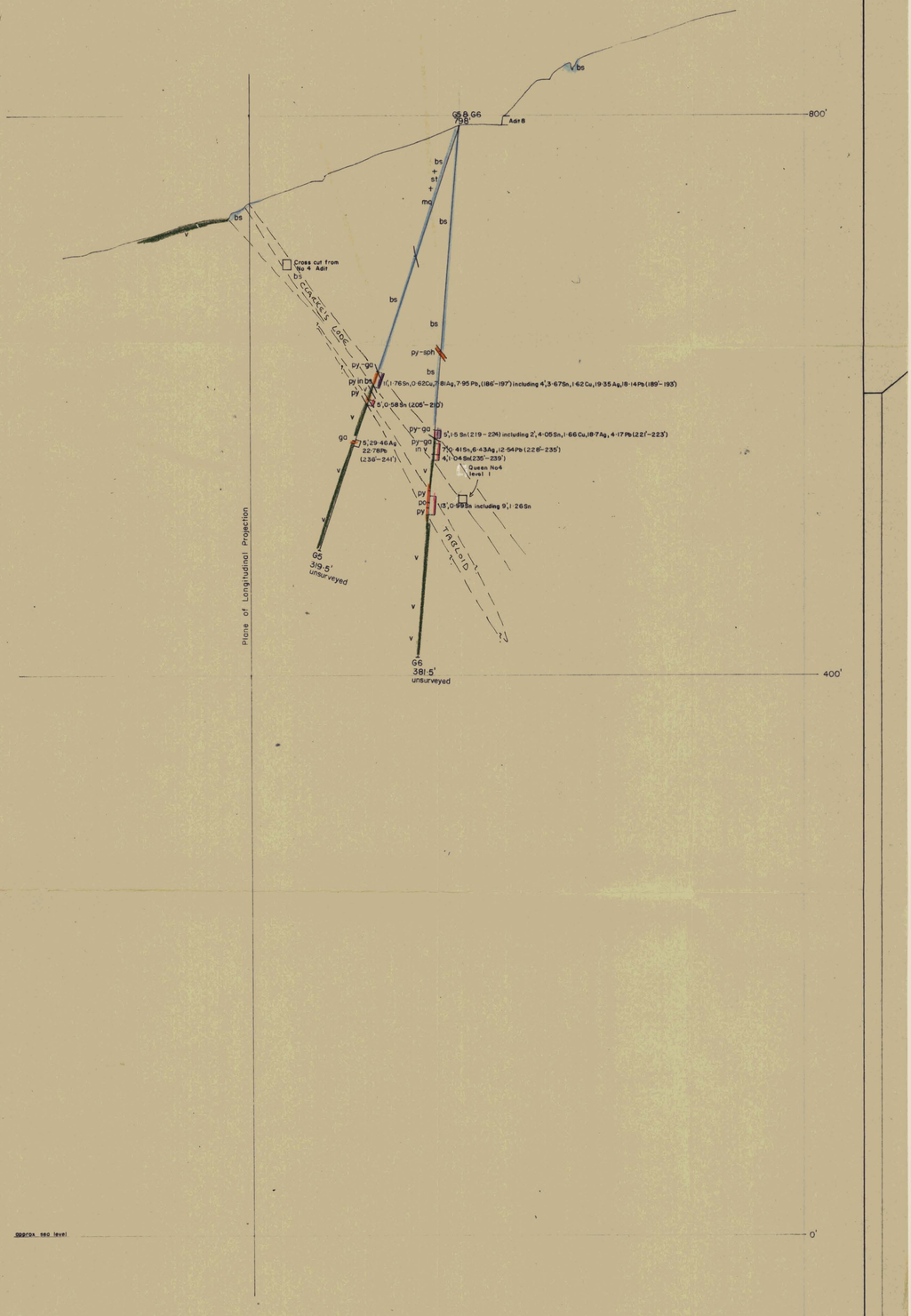
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|---|---|---|
| NORTH WEST TIN FIELD | SECTION G5 & G6 | PLATE 645E/71 |
| | SECTION G7 & G8 | PLATE 645B/71 |
| | SECTION G10 | PLATE 645A/71 |
| | SECTION G11 & G12 | PLATE 645D/71 |
| | SECTION G13 | PALTE 645C/71 |
| QUEEN HILL | SECTION G14 | |
| | SECTION G15 | |
| | SECTION G16 | |
| | SECTION G18 | |
| MONTANA HILL | SECTION G19, G20 | |

GEOLOGICAL MAP OF THE QUEEN HILL AREA, APRIL 1972

QUEEN HILL-DUNKLEY LEASE GEOLOGY

GEOLOGICAL PLAN:QUEEN HILL OCTOBER 1971

GEOLOGICAL FACT PLANS (13)




7647

Cassiterite mineralization

Sn, Cu & Pb Values in percent
Ag Values in ounces per ton

Po Pyrrhotite

Py Pyrite veins, lodes, bedded pyrite

High Cu assays (possible stannite)

ga Galena, (coarsely crystalline)

Si Siderite

Sph Sphalerite

qt Massive light grey-buff quartzite

mg Floggy micaceous quartzites in thin (¼"-½") beds

st Siltstones, carbonaceous in part

bs Black shales & slates

CAMBRIAN

Spilitic tuff

Spilitic agglomerate

Spilitic lavas

-Q- Quartz veins

Contorted

-F- Fault

Dashed lines Projected Towards Observer
Dotted lines Projected Away from Observer

Section Bearing 282° viewed from South

0 10 20 30 40 50
METRES

50 0 50 100
FEET

5 cm

COMINCO EXPLORATION PTY. LTD.

DRAWN SYE-HE-HS TRACED BY G.E.R

CHECKED BY

REVISED BY DATE

REVISED BY DATE

NORTH WEST TIN FIELD, TASMANIA

QUEEN HILL, ML 36M/62

SECTION G6&G6

COMINCO GIPPSLAND JOINT VENTURE

Location code: K55/5/50

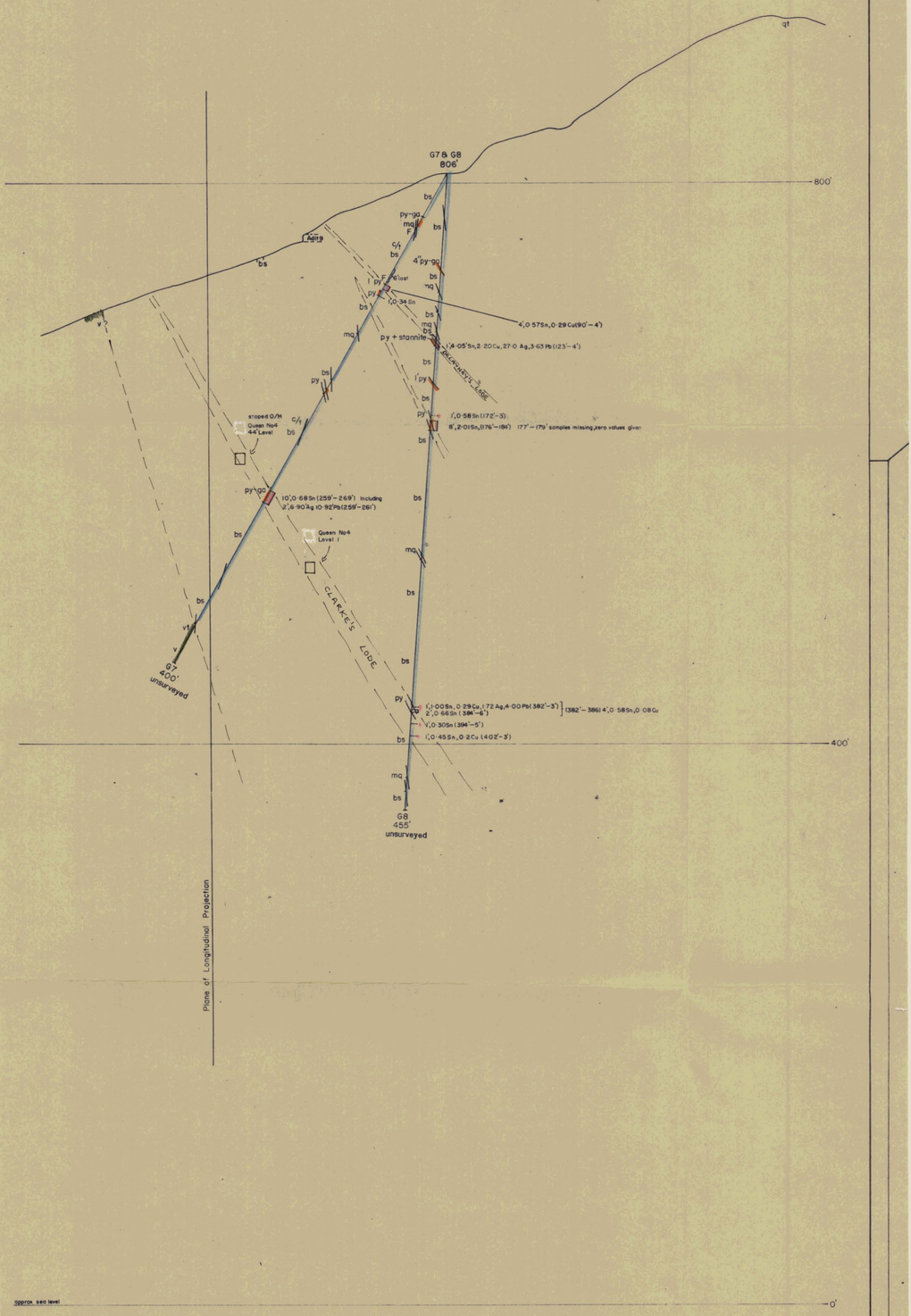
Scale: 1:600

Date: SEPTEMBER 1971

Plate: 645E/71

3393

72-865




Cassiterite mineralization

Sn,Cu&Pb Values in percent
Ag Values in ounces per ton

Po Pyrrhotite

Py Pyrite veins,lodes,bedded pyrite

High Cu assays (possible stannite)

go Galena,(coarsely crystalline)

Si Siderite

Sph Sphalerite

qt Massive light grey–buff quartzite

mq Flaggy micaceous quartzites in thin(½") beds

st Siltstones ,carbonaceous in part

bs Black shales & slates

Spilitic tuff

Spilitic agglomerate

Spilitic lavas

-Q- Quartz veins

c/f Contorted

-F- Fault

Dashed lines Projected Towards Observer
Dotted lines Projected Away from Observer

Section Bearing 282° viewed from South

0 10 20 30 40 50
METRES

50 0 50 100
FEET

5 cm

NATIONAL ARCHIVES
764168 72-865

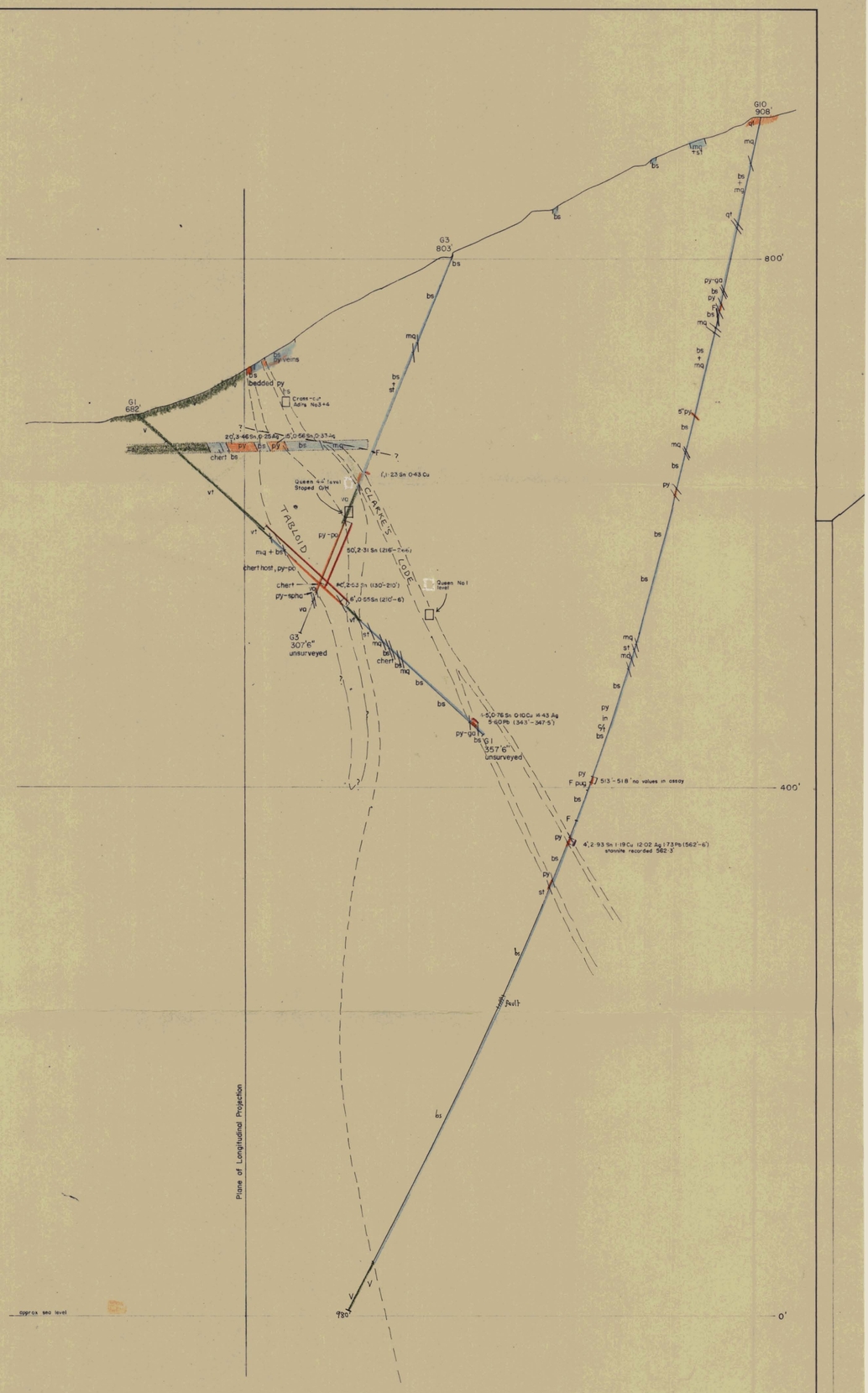
COMINCO EXPLORATION PTY. LTD.

DRAWN BY FL.H.EH.S. TRACED BY G.E.R.
CHECKED BY
REVISED BY DATE
REVISED BY DATE

NORTH WEST TIN FIELD, TASMANIA
QUEEN HILL, ML 36M/62
SECTION G7&G8
COMINCO GIPPSLAND JOINT VENTURE

Location code: K55/5/50
Scale: 1:600
Date: SEPTEMBER 1971
Plate: 645B/71

3393




Cassiterite mineralization

Sn,Cu&Pb Values in percent
Ag Values in ounces per ton

Po Pyrrhotite

Py Pyrite veins, lodes, bedded pyrite

High Cu assays ( possible stannite)

ga Galena(coarsely crystalline)

Sl Siderite

Sph Sphalerite

qt Massive light grey–buff quartzite

mq Flaggy micaceous quartzites in thin($\frac{1}{2}$") beds

st Siltstones, carbonaceous in part

bs Black shales & slates

Spilitic tuff

Spilitic agglomerate

Spilitic lavas

–Q– Quartz veins

c/t Contorted

–F– Fault

5 cm

Dashed lines Projected Towards Observer
Dotted lines Projected Away from Observer

Section Bearing 282° viewed from South

0 10 20 30 40 50
METRES

50 0 50 100
FEET

7641 6972-865

COMINCO EXPLORATION PTY. LTD.

NORTH WEST TIN FIELD, TASMANIA

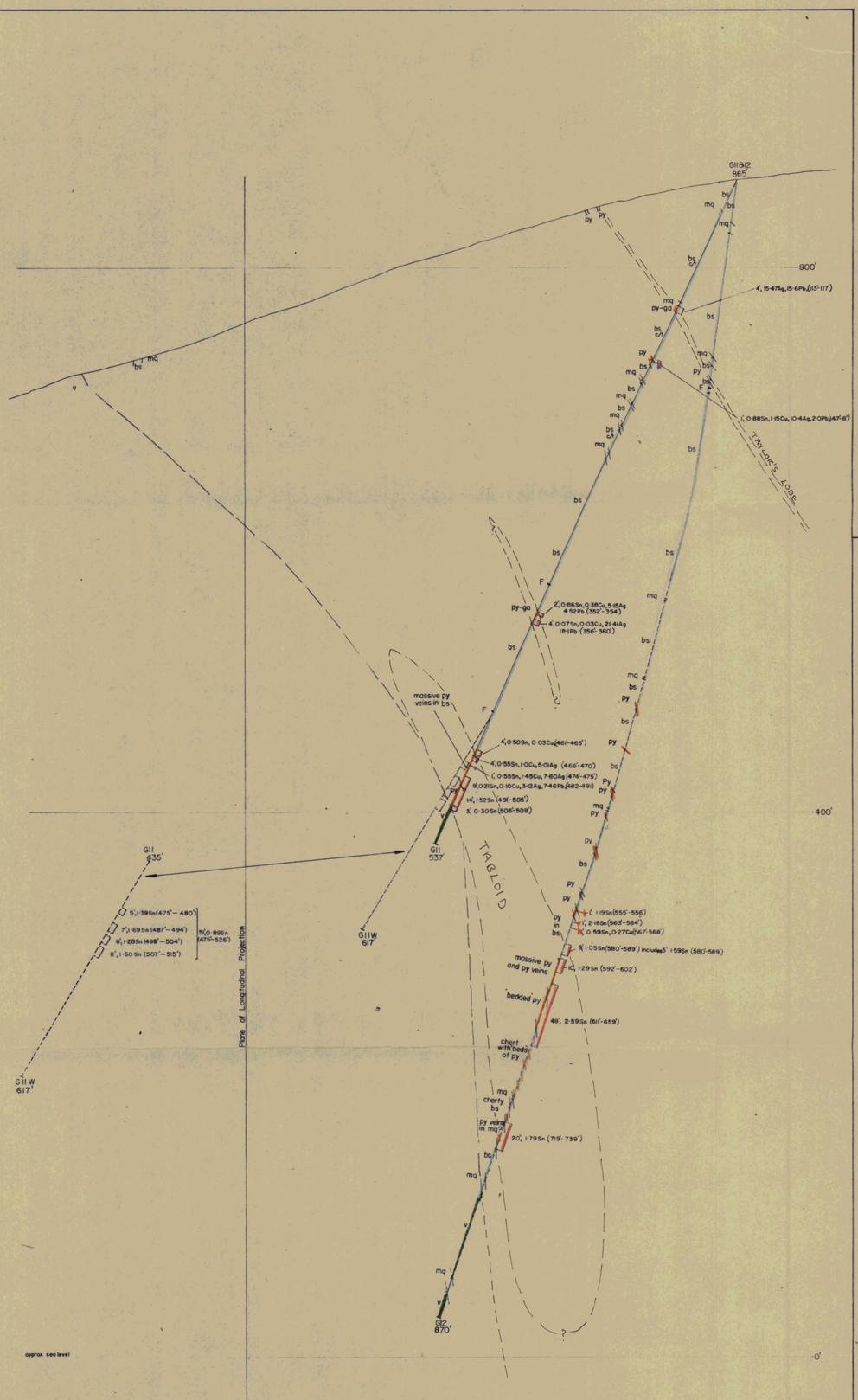
QUEEN HILL, ML 36M/62

SECTION G10

COMINCO GIPPSLAND JOINT VENTURE

3400

| | | | |
|---|---|---|---|
| Location code: K55/5/50 | DRAWN BY: FLEHMS | TRACED BY: GER | |
| | CHECKED BY | REVISED BY | DATE |
| | REVISED BY | | DATE |
| Scale: 1:600 | Date: SEPTEMBER 1971 | Plate: 645A/71 | |




Cassiterite mineralization

Sn,Cu&Pb Values in percent
Ag Values in ounces per ton

Py — Pyrite veins, lodes, bedded pyrite

High Cu assays (possible stannite)

ga — Galena, (coarsely crystalline)

Si — Siderite

Sph — Sphalerite

qt — Massive light grey-buff quartzite

mq — Flaggy micaceous quartzites in thin(<½") beds

st — Siltstones, carbonaceous in part

bs — Black shales & slates

CAMBRIAN

Spilitic tuff

Spilitic agglomerate

Spilitic lavas

-Q- Quartz veins

S/t Contorted

-F- Fault

Dashed lines Projected Towards Observer
Dotted lines Projected Away from Observer

Section Bearing 282° viewed from South

0 10 20 30 40 50
METRES

50 0 50 100
FEET

5 cm

COMINCO EXPLORATION PTY.LTD.

NORTH WEST TIN FIELD, TASMANIA

QUEEN HILL, ML 36M/62

SECTION GII&II2

COMINCO GIPPSLAND JOINT VENTURE

DRAWN BY F.L.H.E.H.S. TRACED BY K.W.B.

CHECKED BY

REVISED BY | DATE | REVISED BY | DATE

Location code: K55/ 5/50

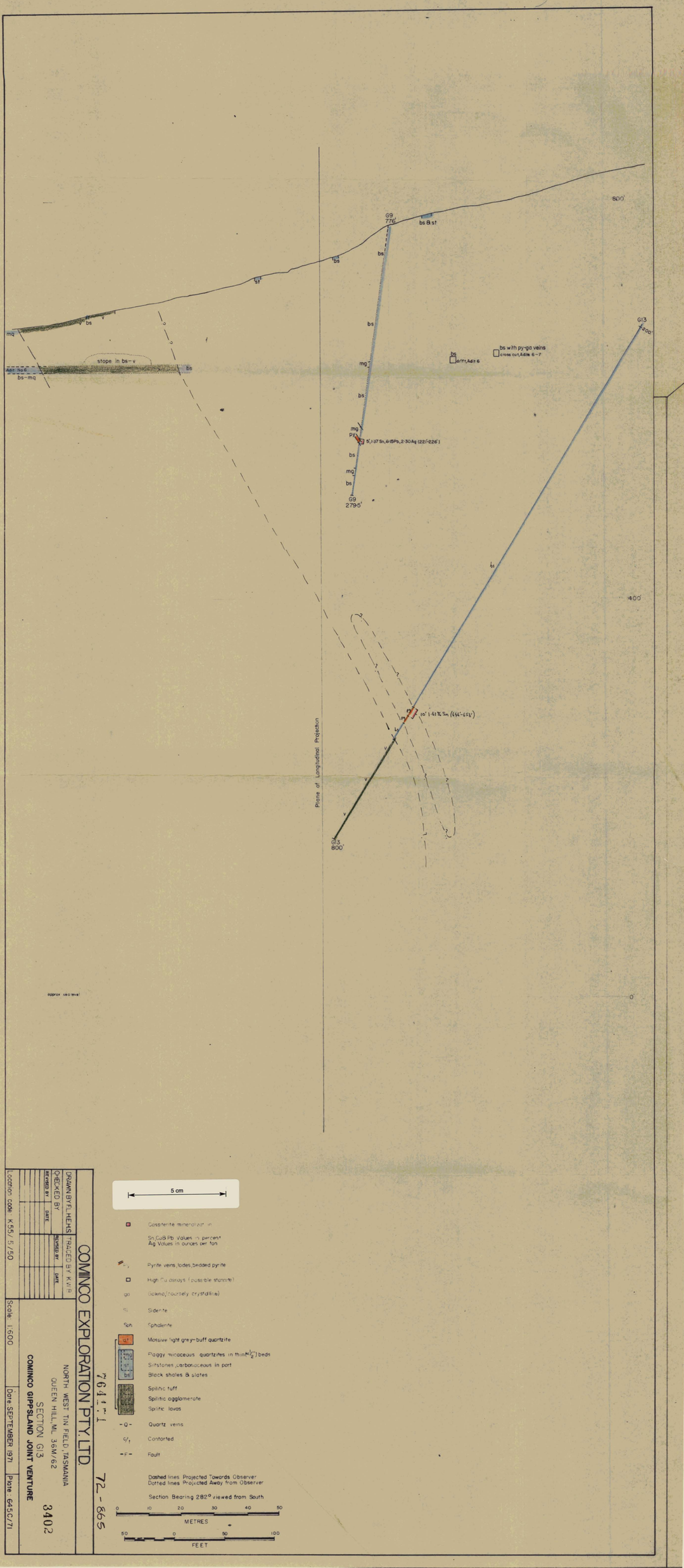
Scale: 1:600

Date: SEPTEMBER 1971

Plate: 6450/71

761170 72-865

3401




5 cm

- Cassiterite mineralization in Sn, Cu & Pb Values in percent Ag Values in ounces per ton
- Pyrite veins, lodes, bedded pyrite
- High Cu assays (possible stannite)
- ga Galena (coarsely crystalline)
- Si Siderite
- Sph Sphalerite
- qt Massive light grey-buff quartzite
- mq Flaggy micaceous quartzites in thin (½") beds
- st Siltstones, carbonaceous in part
- bs Black shales & slates
- Spilitic tuff
- Spilitic agglomerate
- Spilitic lavas
- -Q- Quartz veins
- Contorted
- -F- Fault

Dashed lines Projected Towards Observer
Dotted lines Projected Away from Observer

Section Bearing 282° viewed from South

0 10 20 30 40 50
METRES

50 0 50 100
FEET

COMINCO EXPLORATION PTY. LTD.

NORTH WEST TIN FIELD, TASMANIA

QUEEN HILL ML 36M/62

SECTION G13

COMINCO GIPPSLAND JOINT VENTURE

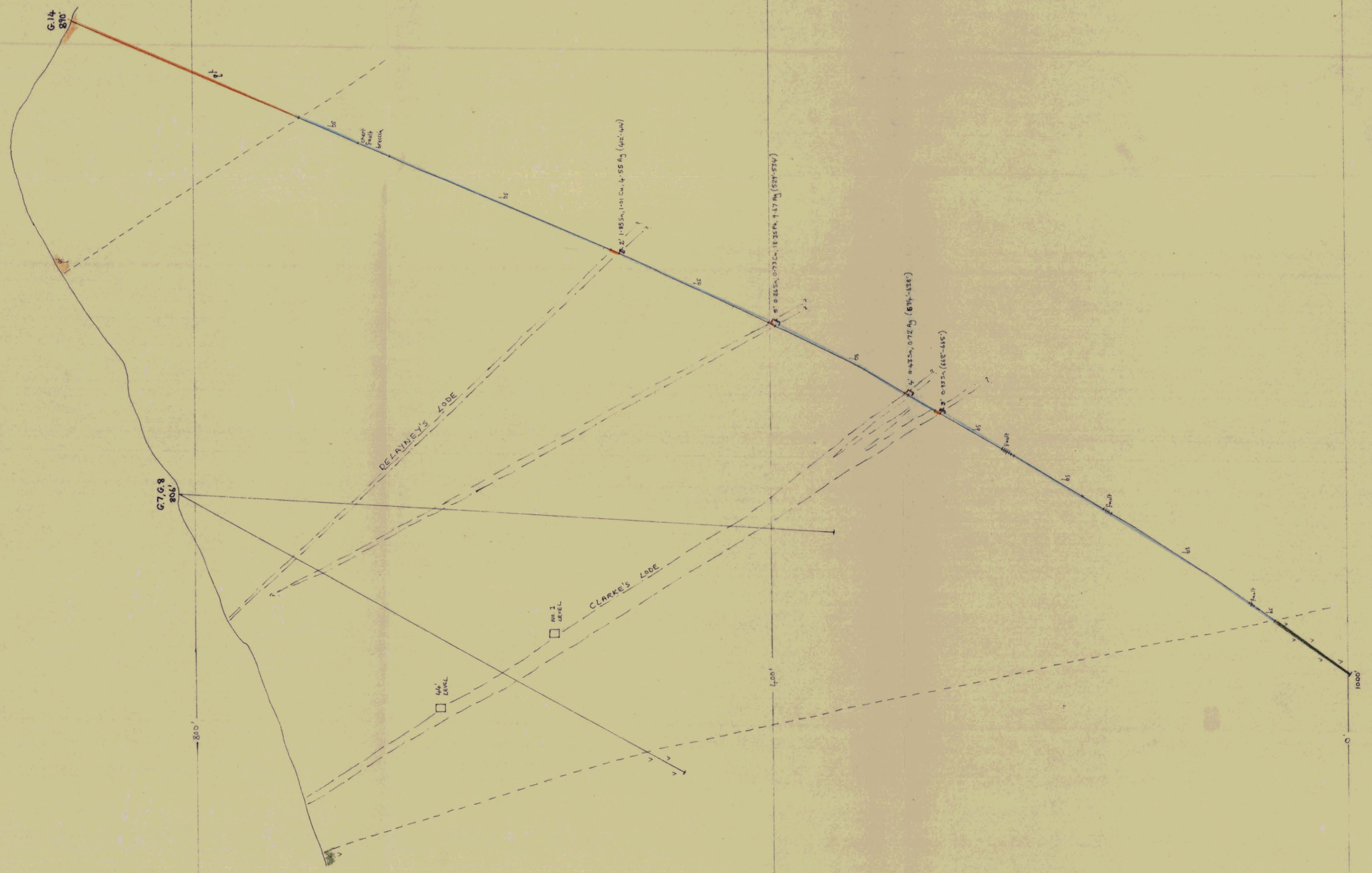
3402

72-865

7641 ml

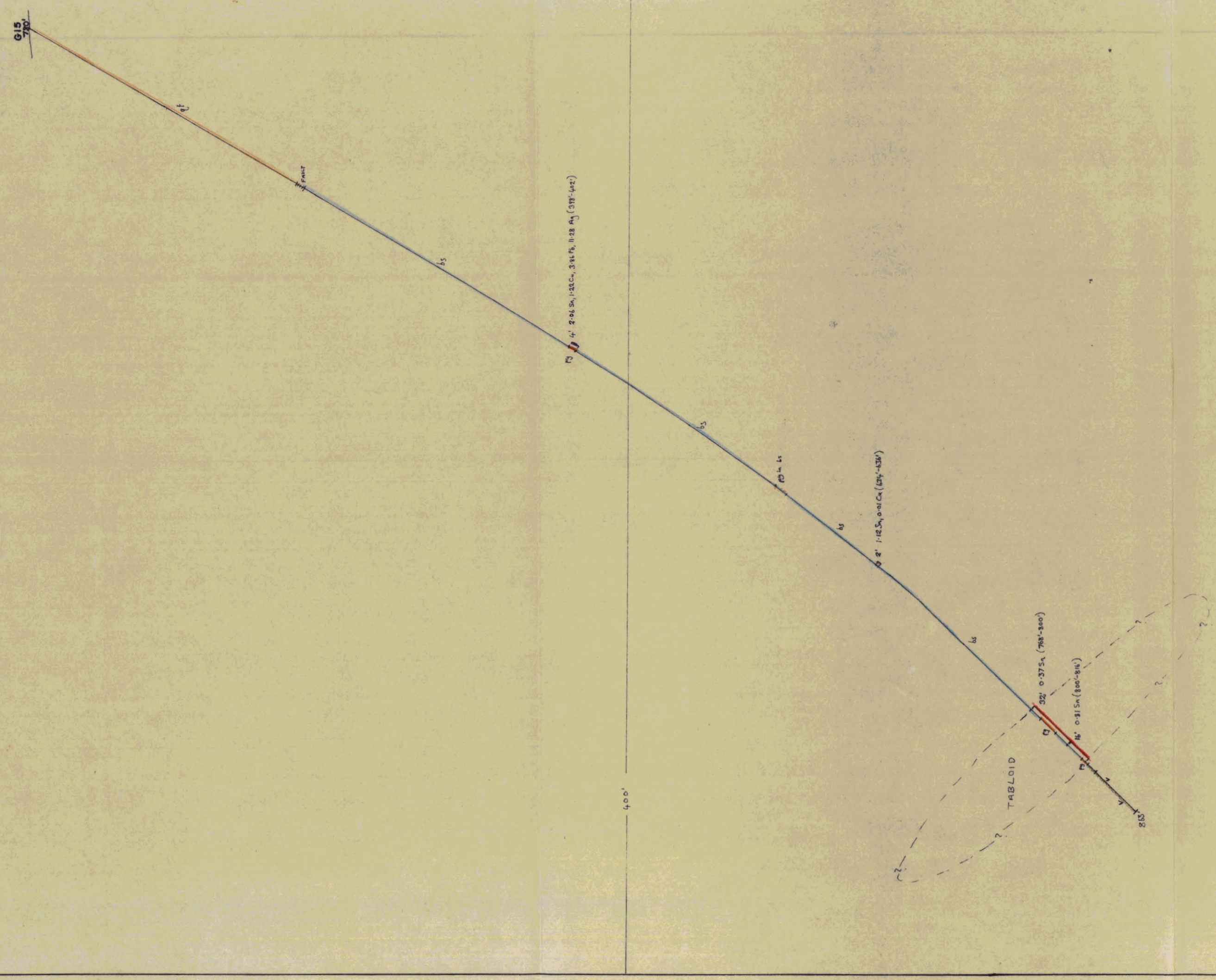
DRAWN BY FL HEHS | TRACED BY K W R | CHECKED BY | DATE | REVISED BY | DATE

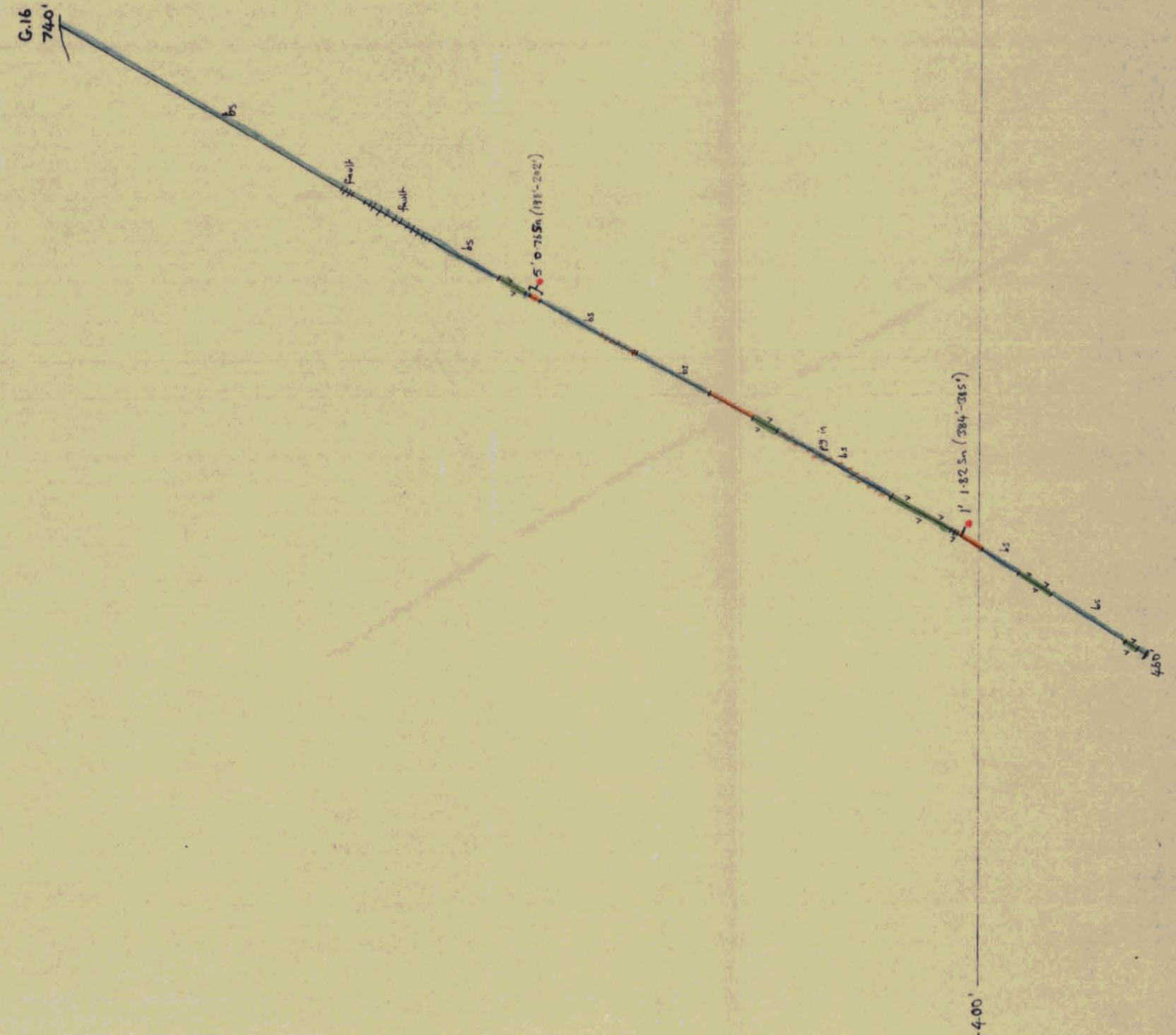
Location code: K55/51/50 | Scale: 1:500 | Date: SEPTEMBER 1971 | Plate: 6455C/71




764172 72-865

| GIPPSLAND MINERALS - COMINCO JOINT VENTURE | |
|---|---|
| QUEEN HILL — SECTION G.14 | |
| ZEEHAN, TASMANIA | 3403 |
| DRAWN | R.J. FISHER 16.5.72 |
| TRACED | |
| CHECKED | |


615
700'
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Green massive quartzites, mica schist and some bands of interbedded grits, black slates, siltstones and quartzites, locally pyritic (5% or so).

Green-grey spilite.

Quartz, pyrite, lode matter siderite.

Cassiterite mineralization.

High degree assays (possibly above 1%).

100 50 0 50 FEET

Section bearing 251° M viewed from the south.

5 cm

764174 72-865

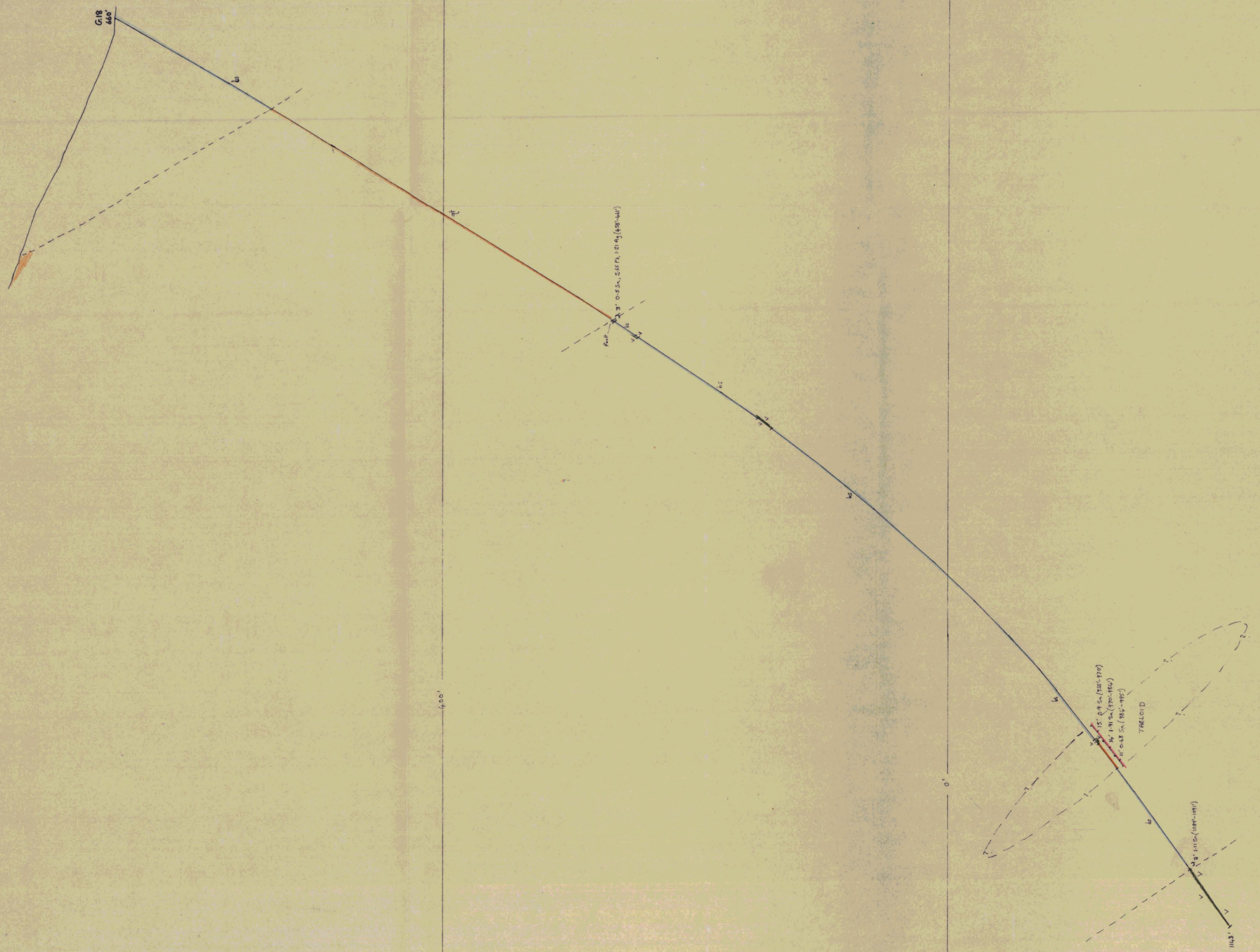
GIPPSLAND MINERALS – COMINCO JOINT VENTURE

QUEEN HILL – SECTION G.16

ZEEHAN, TASMANIA

3405

| | |
|---|---|
| DRAWN | P.J.O'SHEA (FROM ORIG. BY D. BROWN) 16-5-72 |
| TRACED | |
| CHECKED | |




Gossanous quartzites more or less massive.
Interbedded graphitic chlorite schistose and quartzitic, usually pyritic (5%-25%)
Coarse grey pyrite.
Quartz-pyrite lode mineralisation.
Siderite
Cassiterite mineralisation.
High copper assays (usually chalcopyrite)

100 50 0 FEET 50

Section bearing 282°M. viewed from the south.

5 cm

764175 72-865

GIPPSLAND MINERALS – COMINCO JOINT VENTURE

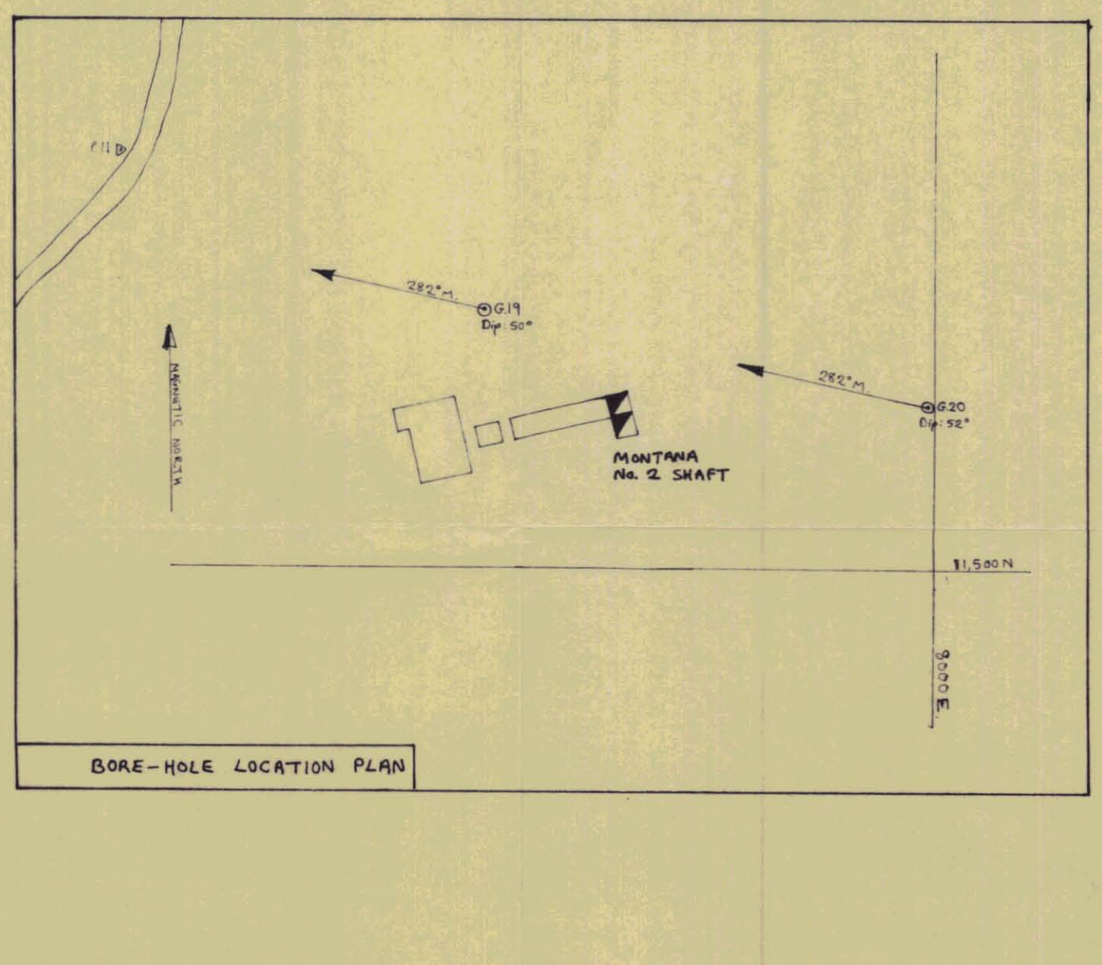
QUEEN HILL – SECTION G.18

ZEEHAN, TASMANIA

3406

| | |
|---|---|
| DRAWN | F.J.O'SHEA 17.5.72 |
| TRACED | |
| CHECKED | |




BORE-HOLE LOCATION PLAN

- qt — Pale grey - grey black quartzites.
- cs — Pale cream - grey to dull purple shales, siltstones and minor greywackes.
- bs — Pale grey dolomitic siltstones.
- ms — Interbedded grey - black shales, siltstones and quartzites, locally pyritic (5%-30%).
- py — Quartz - pyrite - siderite lode.
- Cassiterite mineralisation
- High copper assays (possibly stannite).

50 0 50 100
FEET

Section bearing 282°M. viewed from the south.

5 cm

GIPPSLAND MINERALS - COMINCO JOINT VENTURE

MONTANA HILL — SECTION G.19, G.20

ZEEHAN, TASMANIA

3407

72-865

764176

3407

# GIPPSLAND MINERALS - COMINCO JOINT VENTURE

## GEOLOGICAL MAP OF THE QUEEN HILL AREA, ZEEHAN, TASMANIA. E.L. 47/71

| | |
|---|---|
| DRAWN | R.J. O'SHEA 17-4-72 |
| TRACED | |
| CHECKED | |

3408

72-865

MAGNETIC NORTH

MONTANA FAULT

DONAH TEAR FAULT

BOUNDARY OF EXPLORATION LICENCE AREA

MONTANA NO. 1 SHAFT

MONTANA NO. 2 SHAFT

QUEEN NO. 4 SHAFT

QUEEN NO. 2 SHAFT

ARGENT NO. 4 SHAFT

CEMETRY RESERVE

300 FT RAISE SHAFT

14500N
14000N
13500N
13000N
12500N
12000N
11500N
11000N
10500N
10000N
9500N
9000N
8500N
8000N
7500N

30005E
30006E
30007E
30008E
30009E
30010E
30011E
30012E

### LEGEND

PERMIAN — TILLITE : PALE GREY GLACIAL TILLITE WITH INCLUDED FRAGMENTS OF QUARTZITE AND SLATE.

ORDOVICIAN — GORDON LIMESTONE — LIMESTONE :

CAMBRIAN — CRIMSON CREEK FORMATION — INTERBEDDED MUDSTONES, SHALES AND TUFFS : BEDS PALE GREY, CREAM, PALE RED AND BLACK, MINOR GREYWACKES.

PROTEROZOIC TO LOWER CAMBRIAN — CONAH SERIES

- QUARTZITE : PALE GREY-WHITE MASSIVE QUARTZITE AND QUARTZITIC SANDSTONE, RARE SHALE BEDS.
- INTERBEDDED SLATES, SHALES AND SILTSTONES, MINOR QUARTZITES; BEDS GREY TO DARK GREY-BLACK.
- SPILITE : GREY-GREEN AMYGDALOIDAL SPILITIC LAVAS AND AGGLOMERATIC TUFFS, WEATHERING BROWN.

DIP AND STRIKE OF BEDDING

DIP AND STRIKE OF FAULT

GEOLOGICAL CONTACT CERTAIN

GEOLOGICAL CONTACT UNCERTRIN

GEOLOGICAL CONTACT INFERRED

MINERALISED FAULT OR SHEAR JOINT

ROAD OR TRACK

SHAFT

STREAM

0' 100' 200' 300' 400' 500'

5 cm


MAGNETIC NORTH
72-865
3409
GIPPSLAND MINERALS-COMINCO JOINT VENTURE
QUEEN HILL – DUNKLEY LEASE
OPEN-CUT ON CLARKE'S LODE
DRAWN P.J. OSHEA 19.8.71
TRACED
CHECKED
764178
5 cm
LEGEND
CAMBRIAN OONAH SERIES
GREY TO DARK GREY INTERBEDDED SLATES, SHALES, SILTSTONES AND QUARTZITES.
DARK GREY SLATES, SHALES AND MINOR INTERBEDDED GREY QUARTZITES. OCCURRENT ½"-4" WIDE PYRITE VEINS.
GREY SPASTIC TUFFS, INTERBEDDED WITH GREY SHALES.
GREY SPASTIC, MASSIVE AND AGGLOMERATIC.
QUARTZ-PYRITE LODE, MINOR GALENA, CHALCOPYRITE AND SPHALERITE.
DIP AND STRIKE OF LINEATIONS (SURFACE)
DIP AND STRIKE OF LINEATIONS (UNDERGROUND)
VERTICAL LINEATIONS
FOLD AXIS PLUNGE
FAULT
FAULT INFERRED
GEOLOGICAL CONTACT
DIAMOND DRILL-HOLE PUT DOWN BY GIPPSLAND MINERALS N.L.
UNDERGROUND WORKINGS
5 FOOT CONTOUR INTERVAL
CLIFF FACE
RISE
CLARKE'S LODE
TAGLOID
ADIT NO. 4 R.L. 695'
ADIT NO. 3 R.L. 695'
ADIT NO. 2 R.L. 655'
TRACK
G1 Dip 52°
G2 Dip 44°
700'
705'
710'
715'
720'
725'
730'
735'
10' 0' 5' 10' 15' 20'
SCALE: 1 INCH = 10 FEET

LEGEND

- Massive light grey-buff quartzites very minor clay silt beds.
- Interbedded grey to dark grey-black slates, shales, siltstones and quartzites.
- Grey-buff to brown spilitic tuff, agglomeratic in parts.
- Massive quartz-pyrite lodes with varying amounts of galena, blende, carrollite, chamosite and siderite.
- Fault, showing dip.
- Fault inferred.
- Line of lode inferred.
- Strike and dip of bedding.
- Strike and dip of schistosity.
- Vertical schistosity.
- Fold axis along plunge.
- Geological boundary.
- Underground workings shown in thick line.
- Diamond drill hole.
- Trenches, pits.
- Main shaft.
- Shaft.
- Rise.
- Adit portal.
- Dumps.
- 25' Contour interval.
- Stoped area.

5 cm

SCALE 1:600

72-865 764179

| GIPPSLAND MINERALS-COMINCO JOINT VENTURE | |
|---|---|
| QUEEN HILL, ZEEHAN, TASMANIA | |
| GEOLOGICAL PLAN 3410 | |
| DRAWN BY: | R.J. OSMEN 26-10-71 |
| TRACED BY: | |
| CHECKED BY: | |

72-865

3417

764180

PLAN 1.

13,000 N

13,500 N

14,000 N

10,000 E

9,500 E

9,000 E

ADIT No. 27

ADIT No. 23

INCLINED SHAFT

CAVED-IN ADIT

MONTANA No. 1 SHAFT

DRIVE ON LODE

SHAFT 200' DEEP

ADIT LEVEL AT 100 FT. IN SHAFT

DAM

APPROXIMATE POSITION OF ADIT

SHAFT 76 FT. DEEP.

RISE FROM ADIT LEVEL.

5 cm

72-865

3421

764181 PLAN 2.

13,000N

13,500N

14,000N

9,000E

8,500E

P211

P210

P216
668'

P215
672'

715'
P223

702'
P203

727'
P229

728'
P230

744'
P231

789'
P232

705'
P233

643'
P234

P235 627'

P236

SHAFT
76 FT.
DEEP

DRIVE ON LODE

681'
P237

RISE ABOVE
ADIT LEVEL

P238
672'

685'
P239

P241
660'

620'
P242

582'
P244

585'
P243

712'
P205

720'
P240

APPROXIMATE POSITION OF ADIT

DRIVE ON LODE

ADIT MOUTH
DOZED-IN

Angular blocks of grey quartzite strewn over surface, some in-situ.

750'

700'

675'

650'

725'

5 cm

72-865 PLAN 3

3423 764182

8,500E

675'

650'

P235 @ 627'

663' @ P234

585' P243

502' P244

723'

574' @ P245

8,000E

Ent (4 sites?) P247 @ 635'

P248 @ 649'

649' @ P249

577' @ P246

Conglomerate: rounded quartz and quartzite pebbles in a stiff, sandy matrix.

639' P250 @ BH

Ent

Ent

577' @ P251

GATE

7,500E

665'

Ent

13,000N

13,500N

14,000N

5 cm

72-865
PLAN 4.
3414 764183

M.N.

QUEEN

CREEK

QUEEN No. 5 SHAFT

9,000E

9,500E

10,000 E

12,000 N

12,500 N

N 00S11

N 00S11

72-865 764184
3415 PLAN 5.

DAM

MILL SITE

MILL SITE

ADIT No. 24

ADIT No. 23

ADIT No. 22

ADIT No. 21

ADIT FLOODED

MONTANA No. 6 SHAFT

CROSSCUT

RAISE

1,900 E

1,800 E

72-865 PLAN 6 764185

3413

725'

700'

675'

650'

625'

600'

575'

550'

7,500 E

7,000 E

12,500 N

13,000 N

P248 @ 667'

667' @ P249

P250 @ 677'

P255 @ 600'

577' P251

P254 587'

577' P253

P252 577'

P257 @ 576'

585' P258

P256 565'

P269

P271

671' @ P270

P266

P267

P265 555'

551' P268

561' P263

548' P262

578' P260

ROCK CAIRN-TYP

5 cm

6 sheets

72-865 PLAN 7 764186

3418

10,500E

10,000E

11,000N

10,500N

700'

675'

650'

625'

QUEEN CREEK

TO TRIAL HARBOUR

ADIT NO. 31

7 copies

72-865

3422

7641ST PLAN 8

9,000 E

9,500E

11,500N

11,000N

QUEEN CREEK

PORTAL CAVED-IN

Grey laminated shales and micaceous quartzites.

Black slates and grey quartzites.

Contorted black slates and grey quartzites.

Grey slates and quartzites.

Pyritic shales.

PLANE OF LONGITUDINAL PROJECTION

COLLAPSED STOPE

No.7. DUNN'S TUNNEL

SITE OF OLD ADIT - BLOCKED WHEN ROAD PUT IN.

775'

750'

725'

700'

675

650'

625'

5 cm

3416

MAP SHEET NO. 2.

72-865

PLAN 9.

764188

CHIP SAMPLE LOCALITY : SFT WIDE SAMPLES UNLESS OTHERWISE INDICATED.
N.E. CHIP SAMPLED TRACK IN ADITS AS SHOWN ON 20'=1" ADIT PLANS.

8,000 E

8,500 E

9,000 E

9,500 N

10,000

10,500

PAYNE'S OPEN CUT

ADIT No. 19

ADIT No. 20

ADIT No. 14

ADIT No. 18

ADIT No. 17

ADIT No. 16

ADIT No. 13

ADIT No. 12

ADIT CAVED-IN

D.D.H. G.13

D.D.H. G.15

D.D.H. G.11, G.12 & Hunter

D.D.H. G.10

10 642 N
8315 E

Dam

5 cm

764189 7R-865
PLAN 10.
3420

7 copies

11,500E

BOUNDARY OF CEMETRY RESERVE

ZEEHAN
CEMETRY

P185 725'
P186 701'
P187 708'
P174 692'
P181 692'
P180 745'
P189 742'
P188 735'
P183 729'
P179 725'
P178 711'
P182 711'
P184 727'
P177 687'
P176 680'
P175 680'
P194 671'
P193 689'
P192 760'
P191 689'
P190 692'
725
11,000E
10,500N
5 cm

72-865 PLAN 11.

764190

3412

ZEEHAN CEMETRY

BOUNDARY OF CEMETERY RESERVE

5 cm

QUEEN NO. 2 SHAFT

ADIT

ADIT NO. 30

ADIT NO. 29

DATUM P&G

QUEEN NO. 4 SHAFT

MAGAZINE

10,500 E

10,000 E

9,500 N

10,500 N

764-91 PLAN 12.

N06

S46

Dam

D.D.H. G-10

D.D.H. G-15

16,000 N

975'

850'

825'

800'

775'

750'

725'

700'

675'

650'

625'

600'

M.N.

9,500 E

9,000 N

9,000 E

8,500 E

8,000 E

72-865

3411

72-865

3413

PLAN 13.

764192

