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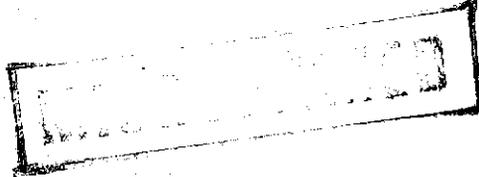
MEMORANDUM

FROM: P. O'SHEA

TO: MR. C. P. BARNES - CHIEF GEOLOGIST

SUBJECT: REPORT ON 40 ACRE QUEEN HILL LEASE - ZEEMAN, TASMANIA.

EL 44/70



Stormwater line?

26/11/67. (Dudley, DC, Fieldhouse, L.)

DATE: 30/12/70

The 40 acre Queen Hill lease was geologically mapped and sampling was carried out in adits and at all surface exposures of mineralization. Recommendations for future exploration are given.

TOPOGRAPHY

The lease area is situated at the northern end of Queen Hill, and encompasses the crest of the hill, the western slope and river flats at the base of the western slope (see map). The river flats in the western part of the area are at an approximate elevation of 630 feet above sea level, and the area rises in the east to a maximum elevation of approximately 900 feet above sea level.

A NE-SW trending stream runs along the flats just to the west of the Trial Harbour Road, and is fed by an E-W trending stream running down from Conan Hill to the west of the lease area.

Button grass grows on the swamp flats in the vicinity of the river, while vegetation on the hillside is in the form of scrub, reaching a maximum height of about 6 feet.

Rock exposure is best in the north and east parts of the area where many man-made trenches and open cuts are present; extensive open cuts have been excavated on Clark's and Taylor's lodes.

GEOLOGY

Early Cambrian? extrusive spilite, spilitic tuff and tuffaceous shale outcrops in the western part of the lease area, and is mainly confined to the lower ground. On the western slope of Queen Hill the tuffs are overlain by siltstones, shales, slates and quartzites; the tuffs, siltstones, shales, slates and quartzites are considered to belong to the early Cambrian? Conan Series (Blisset, 1962).

Due to the intense weathering of the spilites and spilitic tuffs at surface, individual flows cannot be differentiated and dip and strike values are rare. The siltstones, shales and quartzites have been affected by intense folding, the fold axes exhibiting a regional E-W trend; a number of E-W trending faults have been postulated in the lease area.

It is probable that the folding and faulting have been controlled by the NE-SW trending Balstrup fault to the south of the area and the NNW-SSE trending Despatch fault to the north.

OONAH QUARTZITE AND SLATE SERIES

The early Cambrian (or late Pre-Cambrian) Oonah series rocks in the lease area have been split into two main divisions:

- (1) Spilites, spilitic tuffs and tuffaceous shales
- (2) Slates, shales, siltstones and quartzites

Further sub-division of the slates, shales, siltstones and quartzites has proved to be very difficult due to the complex folding and faulting and the lack of suitable marker beds.

1. Spilites, Spilitic tuffs and Tuffaceous Shales

Extrusive spilites, spilitic tuffs and tuffaceous shales in the western part of the area are intensely weathered at surface, where they appear as leached pale brown-cream clays and gritty clays sometimes retaining remnants of an original amygdaloidal texture.

Shale-spilite contacts are best seen in the adits where gradations between spilitic tuffs, tuffaceous shales and shales can be picked up. Fresh spilite encountered in D.D.H. G.I. was seen to be medium grey in colour, fine grained with some amygdaloidal bands in which the amygdaloes are filled with black material (chlorite?).

2. Slates, Shales, Siltstones and Quartzites

Overlying the spilites in the eastern part of the lease area are grey to dark grey-black slates, shales and siltstones with interbedded grey quartzites. In a number of adits, the shales are seen to become pyritic and graphitic in the vicinity of lodes.

The beds are completely weathered at surface, the slates, shales and siltstones being represented by dull purple-grey silty clays. Where quartzites are interbedded the clays are full of white weathered quartzite fragments.

The shales are finely laminated, whereas the siltstones are often massive bedded, individual beds, reaching thicknesses in the order of 6 inches. The quartzite beds vary in thickness between 4" and 9", generally being in the order of 1/2 inch to 1 inch thick.

STRUCTURE

Structural deformation in the area occurred during two main periods of movement -

- (a) the Tabberabberan orogeny
- (b) a period of Mesozoic or late Tertiary faulting.

The main structural features were impressed on the area during the Tabberabberan orogeny.

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Within the lease area the beds have been strongly folded and faulted, and strike directions vary greatly. The major variation in strike direction is between ESE-WNW and SW-NE, and a "concertina" pattern of folding has been postulated. In the close vicinity of the lodes, the strike of the beds often deviates and follows that of the lodes. This strike deviation occurred during pre-lode emplacement faulting.

FAULTING

Two major periods of faulting occurred in the area -

- (a) during the Tabberabberan orogeny
- (b) during the Mesozoic or early Tertiary

(a) Tabberabberan Faulting

Faults belonging to this first period are represented, in the lease area, predominantly by NE-SW trending pre-lode emplacement faults along which lodes were later emplaced. Clarke's lode and Taylor's lode were emplaced along such faults, as can be seen by slickensides on the walls of the lodes as well as marked strike deviations and drag folding in the sediments on either side of the lodes.

In Adit No. 7, 35 feet of black-brown puggy material was driven on 58 feet in from the portal, and in Adit No. 5 50 feet of the same material was driven on 104 feet in from the portal (see adit plans). The same material was found in exposure no. C1 between the two adits where a 15 feet deep shaft has been sunk on the material and stoping has been carried out to the east at the base of the shaft.

It is considered that this material is the product of shearing in black shales and slates over a true width varying between approximately 20 feet in Adit No. 7 where the zone dips S.E. at 30°, and 45 feet in Adit No. 5 where the zone dips N.W. at 75°. A NW-SE trending fault has been postulated to account for the displacement and change in dip between the two adits.

(b) Mesozoic ? Faulting

A second, less severe period of faulting is thought to have occurred during the Mesozoic or in early Tertiary times (Blisset, 1962). A number of N-E to NW-SE trending faults have been postulated in the lease area to account for displacement of the major lodes. It would appear that in places these post-lode emplacement Mesozoic (?) faults die out at fairly shallow depths, as Clark's lode at surface appears to deviate along strike in the southern part of the lease area, whereas the "44 ft." and 110 ft. levels from the Queen No. 4 shaft have been driven straight along the lode at depth in the same area.

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A large number of minor shears have been seen in adits and surface exposures, often exhibiting displacement in the order of $\frac{1}{2}$ inch to 3 inches and many of these are probably a result of the strong folding suffered by the sediments.

FOLDING

During the Tabberabberan orogeny and prior to the first period of faulting, the sediments were strongly folded. This can be seen at outcrop where folds are often displaced by shearing. Both recumbent folds in which the fold core is curved, and tight folds in which the core is sharp have been identified in surface exposures. A hypothetical "concertina" pattern of plunging folds is suggested on the basis of dip and strike variations and fold axes measured in the field. A major NW-SE axial direction is suggested for the folds, based on field measurements; in some exposures the axes were seen to plunge N.W., whereas in other cases a S.E. plunge was noted. Measured plunge values varied between 30° and 70° .

MINERALIZATION

Lode emplacement in the lease area has occurred along faults and fissures initiated during the Tabberabberan orogeny. Two major lodes have been identified in the lease area, these being Clarke's lode and Taylor's lode. A third lode worked in cross-cuts at the end of Adit No. 1 may be Delayney's lode - which according to Mr. D. Dunkley occurs to the east of Taylor's lode. In the northern part of the lease area faulting has displaced the lodes appreciably and correlation between outcrops is very difficult.

Clarke's Lode:

Clarke's lode can be traced over an approximate strike length of 800 ft. in the southern half of the lease area, where the lode strikes 25° E of N over much of the length. Two cross faults have been inferred along this length to account for displacement between outcrops; however, this displacement could equally be due to bending in the lode channel. The lode displays an average dip of 65° to the east, and lode-country rock contacts are generally sharp.

The lode has been emplaced close to the spilite-slate contact, but is confined to the slates in all exposures examined. At surface outcrop, the lode varies in thickness between 6" and 4', an average value being 2'6" wide. In the adits the true thickness of the lode is impossible to measure as it has been worked out. However, in the 5 feet wide cross-cuts the lode width is probably in the region of 4 feet. True lode thickness encountered in the levels from the Queen No. 4 shaft are not given by Blissett (1962).

Composition:

Clarke's lode is essentially a pyritic lode in which massive fine grained pyrite, quartz and siderite constitute gangue. In this gangue are scattered veins and lenses of fine grained galena, minor occurrences of sphalerite and chalcopyrite, and finely disseminated cassiterite and stannite.

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Assay Results:

Placer prospecting carried out an investigation of the lease area in 1965 from the point of view of the tin content of the lodes. Grab samples at surface outcrop in the lease area gave tin percentages varying between nil and 3.70% at outcrop No. C3. All surface outcrops of mineralization have been re-sampled during the present exploration programme, and extensive sampling has been carried out in the adits. Many of the results are not yet available, and it is proposed to discuss the sampling programme results in a separate appendix.

Clarke's lode has been worked from Adit Nos. 1, 3 and 4 in cross cuts and extensively from the "44 feet", 110 ft. and 210 ft. levels of the Queen No. 4 shaft. According to Blissett (1962) Clarke's lode was driven on for 600 ft. at the "44 feet" level, and much stoping was carried out above the level. No. 1 (110 ft.) level was driven on Clarke's lode for 900 ft., and workable galena and stannite ore was stoped out.

Clarke's lode was exposed on No. 2 (210 ft.) level but no details are available and it may not have been worked.

It appears that the old miners were only interested in the silver-lead content of Clarke's lode, although 44 tons of stannite were included in the ore between 1901 and 1905.

Taylor's Lode:

Taylor's lode has been open-cut for 175 ft. along strike (see plan), and pits and trenches have been dug at intervals for 500 ft. to the N.E. The lode has been worked from Adit No. 7, and a caved in Adit (exposure C4) probably intersected the lode also. Evidence of lode material in the pits and trenches is minimal, however, it is exposed in three pits just to the east of exposure C4 at the north-east edge of the lease area.

A cross fault has been postulated to account for displacement of the lode between this exposure and the major open cut.

The lode exhibits a similar strike to Clarke's lode and also dips to the east at between 55° and 60°. To the S.W. of the major open cut the lode present in Adit No. 9 may well be Taylor's lode. The lode in this adit has an average thickness of 4 ft., an average dip of 50° E, and has been worked along strike for at least 35 ft.

In the major open cut along Taylor's lode, the lode shows an average thickness of 1'6", and a rise at the end of Adit No. 8 on the lode connects up to the open-cut at the surface (at an angle of 60°). An inclined winze has also been put down at the end of Adit No. 8, on the lode, for approximately 20 ft. (caved-in at bottom).

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Taylor's lode has been emplaced along a fault in the black slates, siltstones and quartzites of the Cenah series, and black slates and siltstones with disseminated pyrite and thin quartz veins are found against both the footwall and the hanging wall.

Composition:

Taylor's lode, like Clarke's lode, is essentially a pyritic lode in which massive fine grained pyrite and quartz constitute gangue. The only other mineral positively identified in the lode during this survey was chalcopyrite. There is a strong possibility that cassiterite and/or stannite are present in fine grained form.

Delaney's Lode:

At the end of Adit No. 1 cross-cutting to the NE and SW has been carried out, but the cross-cuts are now caved in. It is possible that these cross-cuts have been driven along Delaney's lode which, according to Mr. D. Dunkley, is thought to lie to the east of Taylor's lode. If the lode strikes along the cross-cuts, then it is of similar strike to both Clarke's and Taylor's lodes; the dip could not be ascertained.

In the northern part of the area faulting has displaced the lodes considerably, and correlation between outcrops is very difficult. The lode present in exposure C2 appears to have been stope upward from the first cross-cut in Adit No. 7. It may well be the displaced northern extension of the lode present in exposure C3 and the lode in C3 may itself be the displaced northern extension of Clarke's lode.

The puggy material present in the shear zone described in the section on Tabberabberan faulting, may possibly carry tin, as puggy material collected from Adit No. 5 (Blissett 1962) gave an assay result of 4.13% tin. No correlation has been made as yet between the puggy material in Adit No. 5 and that in Adit No. 6.

G. A. Weller (1904) shows in his geological plan of the area, NW-SE trending lode referred to as No. 4 lode and No. 4 lode south, in the southern part of the lease area. No surface expression of these lodes could be found during the present survey, however, the lode was worked extensively at depth from the Queen No. 4 shaft.

SAMPLING PROCEDURES

Chip samples were taken across all accessible surface outcrops of lode material, and in seven adits. In all cases where possible the actual lodes were sampled, however, in the adits it was often only possible to sample on either side of the lode, as the lode itself had been worked out.

The majority of the chip samples were taken over 5 feet widths, and all samples were taken as close as possible at right angles to the line of the lode (i.e. across the lode).

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The surface outcrop sampling localities have been given numbers on the 50 ft. to 1 inch geological map prefixed by the letter 'C', and the adits in which sampling has been carried out have been numbered from 1 to 7.

A list of sample localities is given below:-

<u>Chip Sample No.</u>	<u>Locality</u>	<u>Width</u>
Z11	C12	5 feet
Z12	C12	6 "
Z13	C11	5 "
Z14, 15, 16, 17, 18, 19, 20	Adit No. 2	5 "
Z21, 22, 23, 24, 25, 26, 26		
Z28, 29		
Z30, 31, 32, 33, 34, 35	Adit No. 3	5 "
Z36, 37, 38, 39, 40, 41	Adit No. 1	5 "
Z42, 43, 44, 45		
Z46, 47, 48, 49, 50	Adit No. 4	5 "
Z51, 52	Adit No. 6	5 "
Z53	C7	3 "
Z54, 55, 56	C6	5 "
Z57, 58	C3	257 - 5 ft. 258 - 6 ft.
Z59, 60	Adit No. 7	5 feet
Z61	C3	5 "
Z62	C5	3 "
Z63	C4	3 "
Z64, 65	C2	5 "
Z66, 67	Adit No. 7	5 "
Z68, 69	C1	6 "
Z70, 71, 72	C8	5 "
Z73, 74	C8	4 "
Z75, 76, 77, 78, 79, 80, 81	Adit No. 7	5 "
Z82	C9	4 "
Z83	C10	5 "
Z84, 85, 86, 87, 88, 89, 90	Adit No. 6	3 "
Z91, 92, 93, 94, 95, 96, 97		
Z98, 99, 100, 101, 102, 103		
Z104, 105		
Z106	Adit No. 5	2 "
Z107, 108, 109	Adit No. 4	5 "
Z110, 111, 112	Adit No. 8	5 "
Z113, 114, 115	Adit No. 1	5 "
Z116	C13	3 "
Z117	Adit No. 9	3 "

All samples have been assayed for lead, zinc, copper, silver, tin and antimony.

DRILLING PROGRAMME

Diamond drill hole No. G1 was put down from a point on the upper track (see plan) in order to intersect Clarke's lode at an estimated vertical depth of 235 feet below outcrop (see Section A-A). As the hole was put down at an angle of 43° , the true dip of formations intersected cannot yet be calculated.

Between 138 feet and 211 feet 10 inches in the hole, lode material was intersected, and the core is at present being assayed. Tin rich pyrrhotite was intersected in this first zone between 156' and 174', and tin values were recorded throughout the whole zone. A second zone of

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lode material was intersected between 343 ft. 6 inches and 347 feet, i.e. the expected depth at which Clarke's lode ought to be intersected. The hole was completed at a depth of 357'6" in black pyritic siltstone and shale with minor quartzite bands. The geological log of this hole is appended.

A second drill hole (No. G2) has been sighted on the same position as G1. This second hole will be drilled in order to try and intersect the first zone of lode material 100 feet south along strike and 50 feet vertically below. The purpose of this hole will be to try and ascertain the dip of the first zone of lode material.

RECOMMENDATION FOR FUTURE EXPLORATION

It is recommended that further drilling be carried out on Clarke's lode, and also that drilling should begin on Taylor's lode. In this context a dozer track has been put in up the west side of Queen Hill. At the top of the track a N.E. - S.W. trending track has been cut 100 ft. to the east of Taylor's lode in order that drilling can be carried out on Taylor's lode.

The position of D.D.E. Nos. G3 and G4 are shown on the accompanying 50 feet to 1 inch geological plan, together with the position of a new track. Results of this drilling programme will be dealt with in a separate report.

P. J. O'Shea
P. J. O'SHEA

GEOLOGICAL CORE LOG

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Diamond Drill Hole No: G.1

Location: Queen Hill, Leehan, Tasmania (see plan)

Direction: 102° magnetic Inclination: 43°

FROM	TO	RECOVERY	DESCRIPTION
0'	12'	washed core	Loose cream-grey fine-medium clayey sand - completely weathered spilite and hill-wash
12'	16'	1'	Pale brown, highly weathered spilite
16'	30'6"	8'11"	Pale brown, highly to completely weathered spilite.
30'6"	45'	7' 6"	Pale grey, moderately to highly weathered friable spilitic tuff, one major direction of textured alignment observed.
45'	65'	14'	Grey (brownish tinge in places) moderately weathered spilitic tuff.
65'	95'	29'	Grey, moderately to slightly weathered spilitic tuff, amygdaloidal in parts amygdalae filled with black material (chlorite ?) Occasional 1/16" - 1/8" quartz veins dipping mostly at c. 65°. FeS speck on 1/16" quartz vein at 94'
95'	130'	34'6"	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'. 1/4" vein of siderite, galena, zinc blende at 117'7" (45° dip). FeS disseminated from 126'-127'.
130'	138'	8'	Grey, fresh spilitic tuff, with coarse grained quartz veins and pods. Irregular 1/16" - 1/4" thick FeS veining, siderite-galena veining 1/8" - 1/4" thick (45° dip) from 134'10" to 135'1"
138'	152'	14'	Interbedded grey quartzite and dark grey shale beds dip at 55° - 70°. Criss-crossed by abundant quartz and pyrite veins and lenses. FeS disseminated throughout the quartzite. Dip of FeS veins very variable.
152'	211'10"	50'10"	Quartz-pyrite lode; brecciated black siltstone is present throughout much of the lode. Quartz varies between angular coarse grained and crypto-crystalline flinty - some of quartz may be sedimentary quartzite. Pyrite is disseminated throughout in patches and in distinct veins. Sphalerite seen at 170'. Massive fine grained pyrrhotite between 156' and 174'. Yellow chalcopyrite associated with the pyrite. Dip on pyrite banding at 158' is 60°.

FROM

TO

RECOVERY

DESCRIPTION

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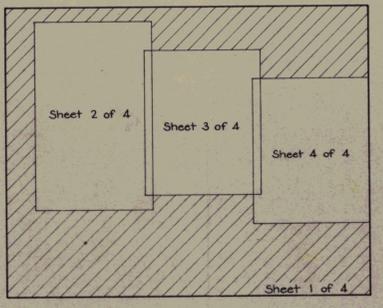
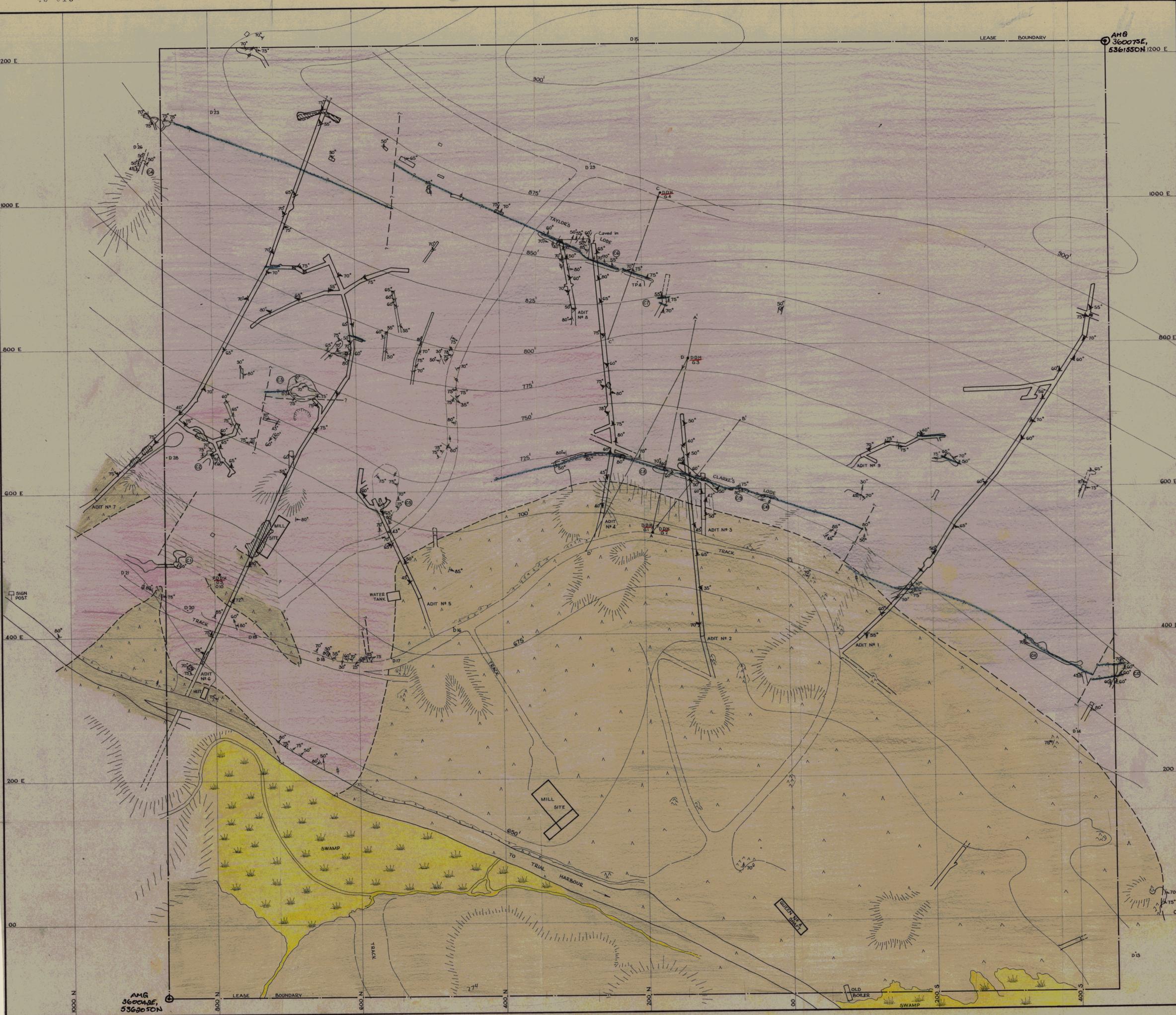
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			Siderite between 185' and 191' in lode Galena as thin 1/8" - 1/4" veins between 204' and 205'. Poor recovery between 205' and 207'
211'10"	214'	2' 2"	Black siltstone, fresh, some pyrite present as blebs and veins less than 1/16" thick. Beds dip at 73°.
214'	229'6"	15'6"	Grey to dark grey interbedded splittic tuff and tuffaceous shale, fresh. Quartz siderite veins and blebs abundant, pyrite disseminated, patchy and as veins less than 1/8" thick, also replacing amygdaloidal filling. Bedding planes not distinct, but are at high angles (65° - 80°)
229'6"	242'3"		Black siltstone, fresh, graphitic from 240'-242'3" with bands and irregular lenses of grey quartzite. Quartzite from 237' has pyrite disseminated throughout it, bedding dip of 70°.
242'3"	254'	11'9"	Dark grey medium to coarse grained quartzite? (sample no. G.S.1. 252'9" - 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'	7'	Black graphitic and pyritic slate; slickensiding dip at 65° at 254'. Bedding dips at 70°.
261'	262'9"	1'9"	Pale grey chert and angular coarse grained (quartzite?), quartz veining present, less than 1/4" thick irregular veins. Pyrite is disseminated in the (quartzite).
262'9"	265'	2'	Dark grey-black graphitic and pyritic shale and siltstone bedding dips at 65°, 70° dip on curved slickensides. Grey quartzitic siltstone from 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.
265'	270'	5'	Dark grey-black pyritic siltstone and shale, bedding dips at 70°. Less than 1/8" thick quartz veins and stringers also occasional pyrite blebs.
270'	273'6"	3'6"	Grey fine-grained quartzite and inter bedded dark grey shale, bedding dips at 70°. Pyrite less than 1/16" thick on joint planes and as blebs. 3" fault pug at 273' dipping at 60°.
273'6"	281'	7'6"	Dark grey black siltstone and shale, graphitic. Quartz veins and stringers present, also pyrite blebs scattered throughout.
281'	282'	1'	Grey fine-grained quartzitic and pale grey coarse grained (quartzite?).

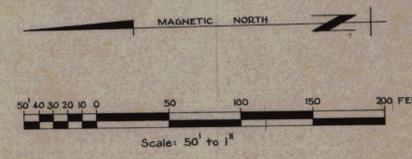
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FROM	TO	RECOVERY	DESCRIPTION
282'	284'	2'	Dark grey shale, with brecciated angular coarse grained (quartzite ?) in a matrix of quartz and siderite with disseminated pyrite from 283'-284'
284'	315'	29' 6"	Dark grey to black siltstone and shale, with occasional pale grey fine grained quartzite bands, beds dip at 60°. Blebs of pyrite up to 1/4" thick throughout, also in veins less than 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'	9'	Interbedded dark grey-black shales and grey quartzites, abundant quartz veins less than 1/4" 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'	10' 6"	Dark grey-black shales abundant quartz veins 1/16" - 1/4" thick. Thick, irregular forming breccia in places. Pyrite disseminated throughout. Core broken to 329', fault pug at 326' 3" for 9" dipping at 50°.
335'	343' 6"	8' 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, abundant from 339'-340'.
343' 6"	347'	3' 6"	Quartz-pyrite-galena lode, brecciated in parts, appears to have been injected along bedding planes, dip at 58°-60°. 5" thick galena band at 345' 6". Some shale bands visible.
347'	357' 6"	10' 6"	Dark grey-black siltstone and shale, minor grey quartzite bands, beds dip at 45°-60°. Quartz veins 1/16" - 1/4" thick, mainly along bedding planes. 1/4" siderite vein at 352'. Pyrite disseminated throughout and as thin veins and blebs.
			End of Hole at 357' 6"

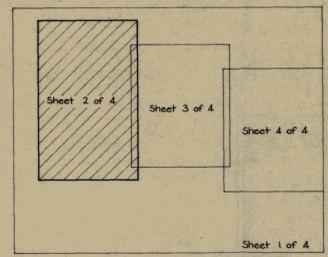
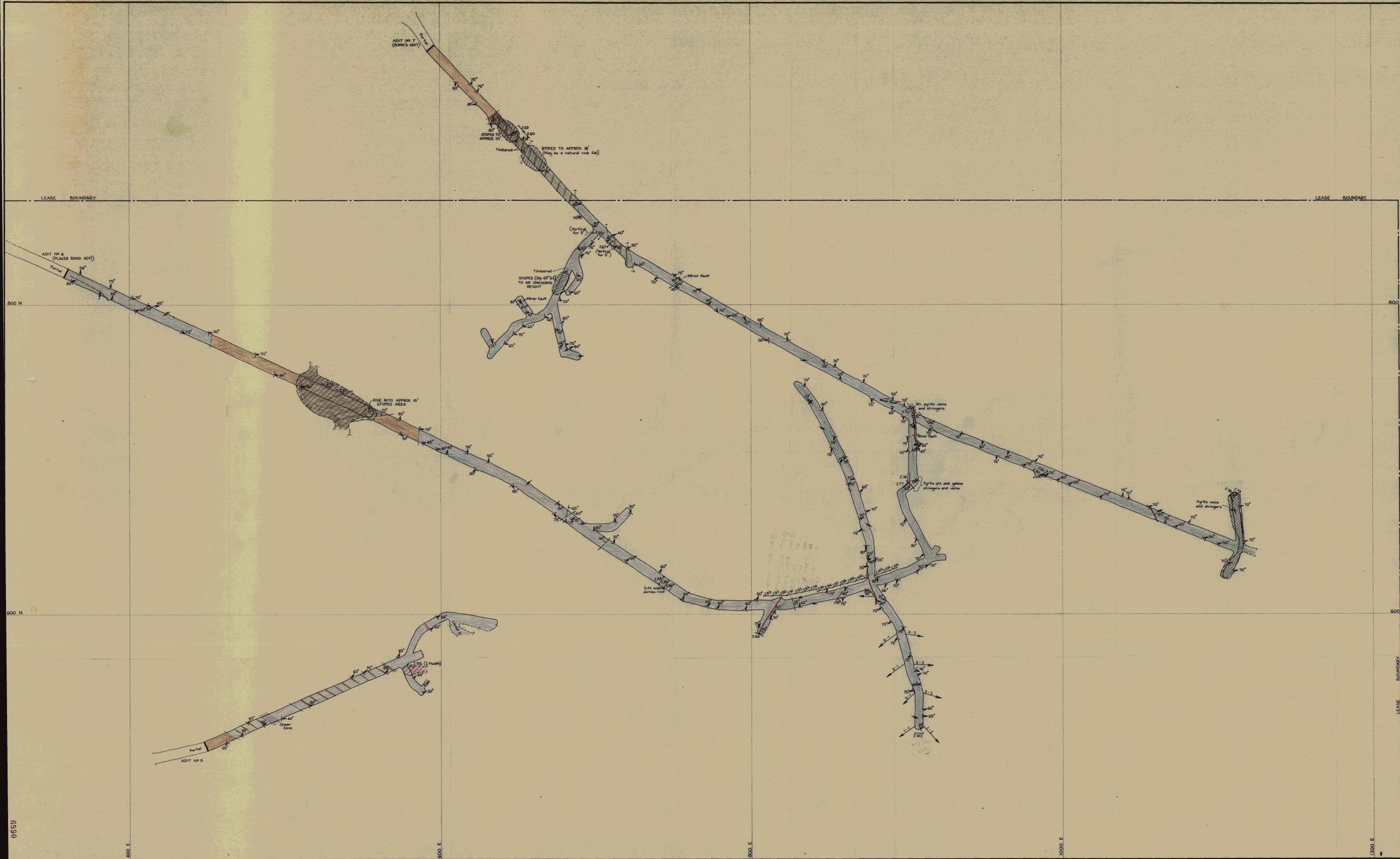


- LEGEND**
- QUATERNARY - RECENT SWAMP DEPOSITS
 - LOWER CAMBRIAN - SLATES, SHALES, SILTSTONES AND QUARTZITES
 - CONAH SERIES - SPILITE
 - PYRITE - GALENA - CASSITERITE - STANNITE LODES WITH QUARTZ-SIDERITE GANGUE
 - INFERRED LINE OF LODE
 - FAULT
 - FAULT INFERRED
 - GEOLOGICAL BOUNDARY
 - SHEAR ZONE
 - DIP AND STRIKE OF BEDS
 - VERTICAL BEDS
 - 30° FOLD AXIS ALONG PLUNGE
 - PDDH DIAMOND DRILL HOLE PUT DOWN BY PLACER PROSPECTING
 - DDH DIAMOND DRILL HOLE PUT DOWN BY GIPPSLAND MINERALS N.L.
 - UNDERGROUND WORKINGS SHOWN IN THICK LINE
 - 25' CONTOUR INTERVAL
 - NUMBERED OUTCROP
 - STOPPED AREA



GIPPSLAND MINERALS N.L.	
QUEEN HILL ZEEHAN TASMANIA	
DRAWN	P. J. O'SHEA
TRACED	B. R. POOLE
CHECKED	SHEET 1 of 4

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INDEX TO SHEETS

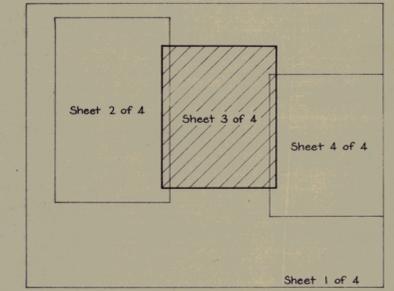
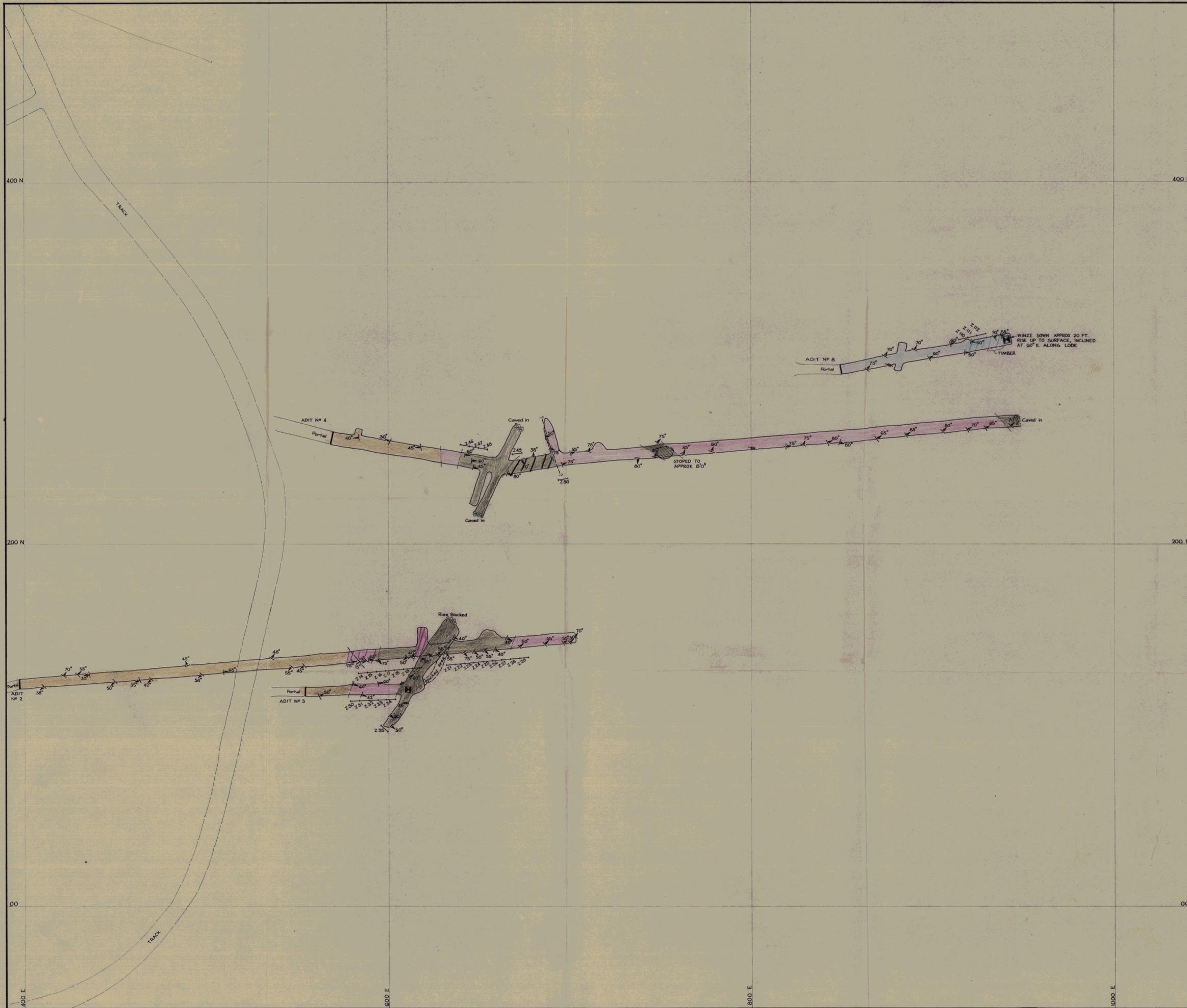
LEGEND

- GREY TO DARK GREY-BLACK SLATES, SHALES AND SILTSTONES (Some beds with thin disseminated pyrites) WITH INTERBEDDED SECT QUARTZITES 'N' VARIOUS HORIZONS.
- GREY TO DARK GREY-BLACK SLATES, SHALES AND SILTSTONES WITH INTERBEDDED SPILITE.
- BLACK-GREEN MICAC. CLAY (completely weathered clays and siltstones) PYRITIC, WITH MINOR SPILITE BANDS.
- BUFF-BROWN WEATHERED SPILITE.
- PYRITE-ORENAR VEINS.
- PYRITIC LODE MATERIAL (bed boundaries not defined).

- Z 201 CHIP SAMPLE TAKEN OVER 5 FT. WIDTH
- PERCUSSION DRILL HOLE (PLACER)
- DIP AND STRIKE OF BEDS
- STRIKE AND PLING OF FOLD
- GEOLOGICAL BOUNDARY
- FAULT
- 20° DIVECLINE
- STOPPED AREA

MAGNETIC NORTH

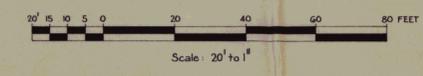
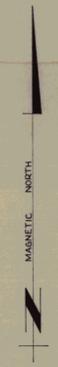
GIPPSLAND MINERALS N.L.	
QUEEN HILL	
ZEEHAN	
TASMANIA	
DRAWN	P.J. O'SHEA
TRACED	B.R. POOLE
CHECKED	SHEET 2 of 4



INDEX TO SHEETS

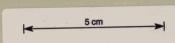
LEGEND

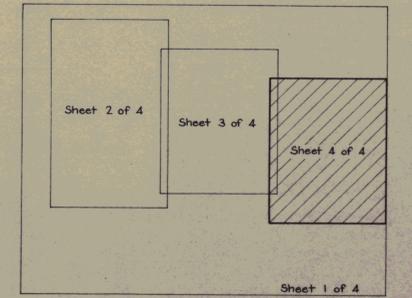
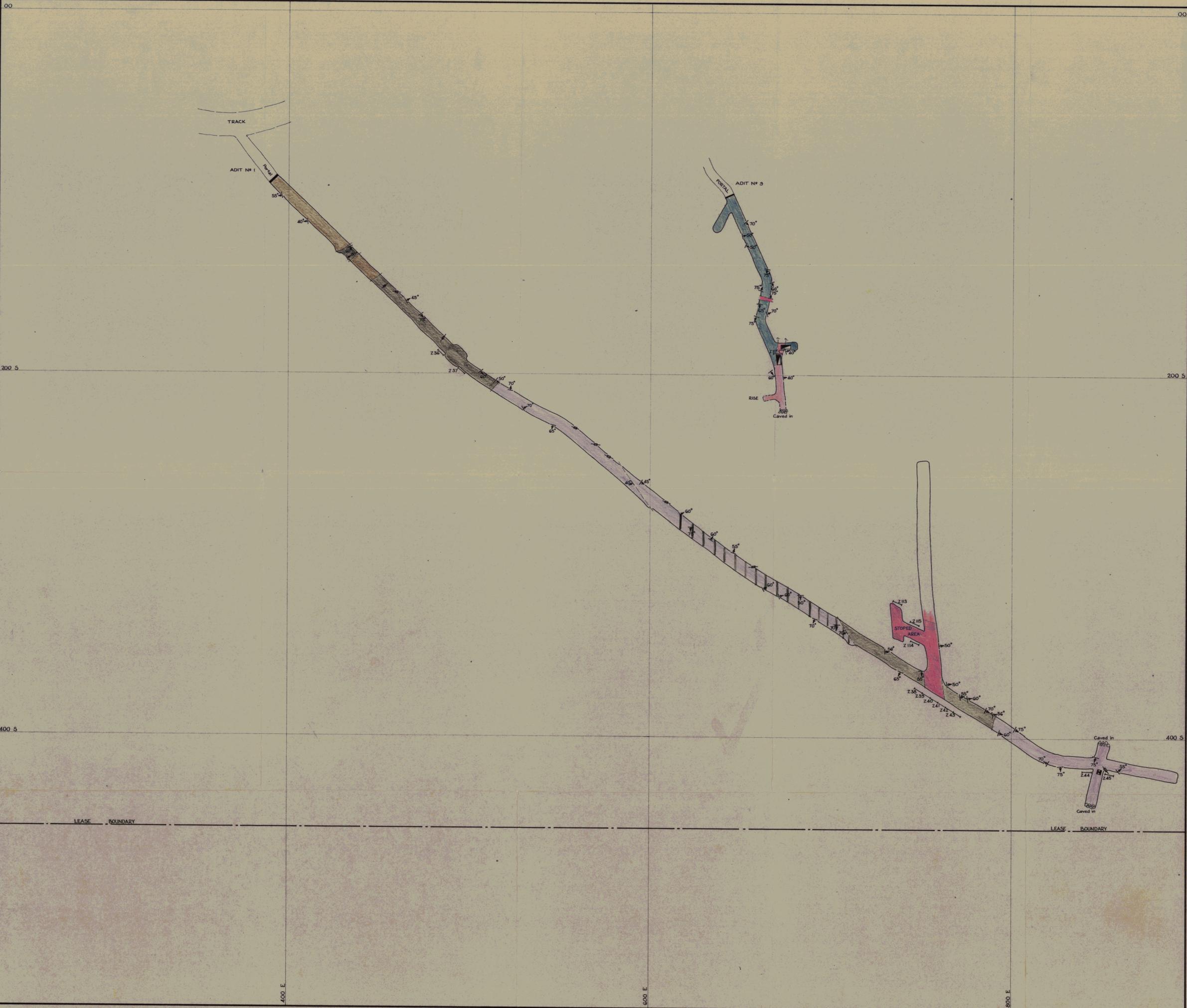
- DARK GREY - BLACK SLATES AND MINOR SILTSTONES
- 1/8" - 1/2" PYRITE VEINS AND STRINGERS IN SLATES
- PALE BROWN - WHITE WEATHERED SPLITE
- BLACK SLATES WITH INTERBEDDED GREY QUARTZITE BANDS
- BLACK SLATES AND SILTSTONES
- GREY TO DARK GREY SLATES AND SILTSTONES, INTERBEDDED IN PARTS WITH GREY QUARTZITE BANDS
- YELLOW - BROWN WEATHERED SPLITE
- GREY QUARTZITE SLATE WITH INTERBEDDED SPLITE BANDS
- BLACK SLATES, MINOR INTERBEDDED GREY QUARTZITE BANDS
- HARD BLACK PYRITIC SILTSTONE, SLATE, SOME QUARTZ AND PYRITE STRINGERS
- GREY SLATES, SILTSTONE AND QUARTZITIC SILTSTONE
- GEOLOGICAL BOUNDARY
- FAULT SHOWING DIP AND STRIKE OF FAULT PLANE
- DIP AND STRIKE OF MAJOR LINEATION
- CHIP SAMPLE TAKEN OVER 5 FT. WIDTH
- STOPED AREA
- RISE



GIPPSLAND MINERALS N.L.	
QUEEN HILL	
ZEEHAN	
TASMANIA	
DRAWN	P. J. O'SHEA
TRACED	B. R. POOLE
CHECKED	SHEET 3 of 4

6591

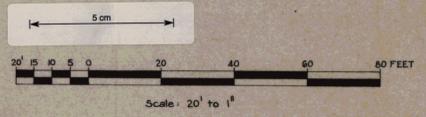
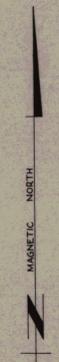




INDEX TO SHEETS

LEGEND

- INTERBEDDED BLACK SLATES, SILTSTONES, GREY SLATES AND GREY QUARTZITES
- PYRITIC LOSE MATERIAL
- YELLOW-BROWN WEATHERED SPILITE
- BLACK SLATE
- GREY - DARK GREY AND BLACK SLATES AND SHALES
- GREY SLATES, SILTSTONES AND QUARTZITES
- DIP AND STRIKE OF BEDDING
- WINZE



GIPPSLAND MINERALS N.L.	
QUEEN HILL	
ZEEHAN	
TASMANIA	
70-713	
DRAWN	P.J. O'SHEA
TRACED	B.R. POOLE
CHECKED	SHEER W.R.H.



PLAN OF THE QUEEN NO. 4 WORKINGS
 SCALE : 50 FEET TO 1 INCH

- 44th LEVEL
- NO. 1 LEVEL
- NO. 2 LEVEL
- INTERMEDIATES
- ADITS

