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ELECTROLYTIC ZINC COMPANY OF AUSTRALASIA LIMITED

Mineral Resources Division

EXPLORATION LICENCE NO. 1/62 MT. BLACK

Progress Report on Exploration Activity
4th May, to 15th November, 1983

Report No. T173 MD

I.R. McDonald,
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TABLE OF CONTENTS

LIST OF APPENDICES

LIST OF PLANS

1. INTRODUCTION

This report covers work on Exploration Licence No. 1/62 by Electrolytic Zinc Company of Australasia Limited between 4th May and 15th November, 1983.

The work was carried out on behalf of a Joint Venture between E.Z. and Getty Oil Development Co. Ltd., which was initiated in April, 1978. A description of the Licence and its history of tenure can be found in E.Z. Report No. 131 - "E.L. 1/62 Work Undertaken to 30th June, 1979".

2. PREVIOUS EXPLORATION

E.Z. Report No. 134 - "E.L. 1/62 Work Undertaken 30th June, 1979 to June, 1980" - in addition to detailing all activities carried out during 1979/80, also contains a detailed reference to all previous exploration undertaken since the granting of the E.L.

E.Z. Report No!s 142 (1981), 144 (1981), 148 (1982), 158 (1982) and 164 (1983) cover subsequent exploration to the commencement of this report.

3. ABBREVIATIONS

Standard symbols and terminology used on geological plans and sections are detailed on Plate 1 of E.Z. Report No. 142 - "Progress Report on Activity July, 1980 to June, 1981".

4. EXPLORATION UNDERTAKEN 4TH MAY TO 15TH NOVEMBER, 1983
(Refer to Plan A2-504-0016 "Work Completed 4.5.'83 - 15.11.'83")

4.1. Colebrook Hill

4.1.1. Work Completed

Three diamond drill holes totalling 802.4m were completed.

Parameters of the holes are as follows:

DDH CHP 240

Collar Co-ordinates	:	5,371,703mN; 374,951mE A.M.G.
R.L.	:	477m a.s.l.
Dip	:	-64°
Azimuth	:	100° A.M.G.
Final Depth	:	291.4m

DDH CHP 241

Collar Co-ordinates : 5,371,002mN; 374,935mE A.M.G.

R.L. : 470m a.s.l.

Dip : -60°

Azimuth : 090° A.M.G.

Final Depth : 284m

DDH CHP 243

Collar Co-ordinates : 5,370,852mN; 374,817mE A.M.G.

R.L. : 466m a.s.l.

Dip : -65°

Azimuth : 257° A.M.G.

Final Depth : 227m

All three holes were cased with 40mm diameter P.V.C. pipe.

The holes were geologically logged in detail. Magnetic susceptibility measurements were taken on all core every 0.2m using a Scintrex SM5 susceptibility meter. Results were averaged over approximately 2.0m intervals for plotting. Mineralised sections of the drill core were sampled by ½ core split. The remainder of the core was sampled by taking continuous fillet samples along the core. All samples were sent to Analabs Pty. Ltd. for analysis.

For DDH CHP 240 the split core samples were analysed for Cu, Pb, Zn, Ag, Cr by A.A.S. after nitric-perchloric digestion; for Fe by A.A.S. after hydrofluoric digestion; for As by A.A.S. after vapour hydride generation; For Sn, W, S by XRF; and Au by fire assay. The fillet core samples were analysed for Cu, Pb, Zn, Ag, Cr, Fe, Mn by A.A.S./nitric-perchloric; for As by A.A.S./vapour hydride; and for Sn by XRF. Twelve selected samples were submitted for a semi-quantitative scan for 25 elements mostly by XRF. Elements analysed were Li, Na, K, Rb, Be, Mg, Ca, Si, Ba, Ti, V, Co, Ni, Nb, Mo, Hg, Sb, Bi, Te, La, Ce, B, P, F, Cl.

For DDH CHP 241 and CHP 243 all samples were analysed for Cu, Pb, Zn, Ag, Fe, Mn, Cr by A.A.S./nitric-perchloric; for As by A.A.S./vapour hydride; and for Sn by XRF.

Six samples from DDH CHP 241 and one sample from DDH CHP 243 were submitted to C.M.S. for thin section petrological description.

4.1.2. Results Received

(Refer to Appx 1. logs of CHP 240, 241, 243; Appx 2. C.M.S. Report 83/9/35; Appx 3. Geochemical scan results; Plan No. AO-504-0265; and Drill Hole Summary Sheets No's AO-504-0321; -0320, -0325.)

DDH CHP 240

This hole was drilled under DDH CHP 228 to test a strong off-hole conductor indicated by a downhole Sirotem survey on CHP 228 (see Report No's 148 and 164). DDH CHP 240 successfully intersected significant sulphide mineralisation within a zone of intense actinolite-axinite-calcite alteration of volcanic wackes, siltstones and limestones. The intense calc-silicate alteration occurs between 169.3m and 233.8m. This is surrounded by zones of weaker alteration, mainly confined to narrow fractures. Heavily disseminated to semi massive sulphides occur in two bands within the intense alteration zone; from 181.0 to 211.0m and from 222.5 to 229.0m. The sulphides are predominantly pyrrhotite with lesser amounts of arsenopyrite and chalcopyrite.

Narrow zones of vein and stringer sulphides occur elsewhere scattered throughout the hole, but almost always are associated with veins of alteration.

Weak sulphide mineralisation between 90m and 145m is believed to relate to similar weak mineralisation between 35m and 65m in CHP 228. This zone is the source of the V.L.F. response originally drilled by CHP 228.

The main zone of sulphides and alteration are believed to relate to sulphide bearing alteration zones seen in the B trench and the East Colebrook No. 1 adit. In the B trench this zone is sharply truncated by an east-west ?fault or ?joint surface which dips at 70^{o} to the north. Projection of this plane down dip to the north causes it to pass between drill holes CHP 228 and CHP 240. This explains why CHP 228 did not intersect the main sulphide bearing alteration zone. The sulphide bearing alteration zones seen in the East Open Cut; the East Colebrook No. 4 and No. 5 adits, and between 163m and 195m in CHP 228, may also be truncated on their southern side by the same north dipping fault plane.

This raises the possibility that the East Open Cut Lode is the fault-displaced northern extension of the main East Colebrook No. 1 Lode.

Magnetic susceptibility measurements show good correlation with the estimated pyrrhotite contents within CHP 240. Averaged susceptibility values in c.g.s. units are as follows:

0 - 181m	Very low with occasional thin bands to 0.002
181 - 211m	0.004
211 - 220m	0.0005
220 - 233m	0.0025
233 - 291.4m	Very low with occasional thin bands to 0.003.

Mineralisation within CHP 240 is dominated by As and Cu values. Peak values are 6.05% As and 3.02% Cu. The maximum Sn assay is only 974 ppm Sn but between 167m and 240m Sn consistently reports between 200 ppm and 700 ppm Sn. This represents significantly higher background in Sn than any of the earlier holes on Colebrook Hill. There are no significant precious metal values associated with the mineralisation. Erratic W values occur with a high of 2,260 ppm W but W is mostly below the detection limit. The most significant assay intervals are:

Interval	Cu%	Ag ppm	Sn ppm	W ppm	As%	S%
114.0-115.3	3.02	30	222	X	0.9	6
170.0-171.5	1.72	13.5	323	345	0.8	5
181.0-185.0	1.85	13.1	178	447	2.0	11
182-183	2.37	15.0	277	1290	2.8	7
188.0-194.0	1.18	6.8	250	152	1.0	16
200.2-201.0	1.23	8.5	225	2260	0.2	8
231.0-233.0	-	-	371	1080	1.1	3

The twelve samples submitted for multi-element geochemical scan did not return any particularly unexpected values. The most altered samples appear to be enriched in Ca, B, Mo, Cl, Co, Bi, and depleted in most of the rest of the elements analysed. Some elements are so near the detection limit that no trends are evident. Fluorine values provide the most unexpected trend. The highest value of 1000 ppm F comes from a relatively unaltered siltstone. The altered rocks are not enriched in F as might have been expected from the metasomatic style of the alteration. None of the elements analysed returned economically significant values.

DDH CHP 241

This hole was drilled to follow up weak Sn mineralisation (0.15% Sn) associated with thin pyrrhotite veinlets and disseminations in DDH CHP 238 (see Report No. 164). A down-hole Sirotem survey on CHP 238 had suggested that the zone of pyrrhotite mineralisation should extend for some distance off-hole.

DDH CHP 241 was largely unsuccessful. Very weak sulphides between 98m and 128m may relate to the oxidised zone in CHP 238 between 26m and 32m which assayed 0.16% Sn. The best assay from this zone however is only:- 126.5-127.2m; 0.7m at 84 ppm Sn 560 ppm Cu.

In CHP 228 an assay of 1.0m at 0.15% Sn came from a zone of weak pyrrhotite mineralisation between 88m and 115m. In CHP 241 disseminated and stringer pyrrhotite between 167m and 190.5m and between 207m and 215m may belong to the same zone as in CHP 228. The best assay interval from this zone is only:- 172.0-173.5m; 1.5m at 84ppm Sn, 195 ppm Cu.

The highest assaying interval for the whole of CHP 241 comes from a 0.2m thick quartz-carbonate vein carrying 40% pyrrhotite and minor chalcopyrite in a shear zone. This returned an assay of:-
221.0-222.0m; 1.0m at 520 ppm Sn, 570 ppm Cu; 580 ppm As.

Magnetic susceptibility values for CHP 241 core are generally low with short intervals of higher values which show good correlation with estimated pyrrhotite contents. Some higher values come from pyrrhotite poor intervals and are due to magnetite bearing sediments.

Lithological correlation between DDH CHP 241 and CHP 238 is very difficult. CHP 238 showed a fairly distinct contact, at about 171m, between a typical Crimson Creek style sequence of green mafic volcanic wackes and finer grained sediments above, and a sequence of grey fine grained wackes, black mudstones and grey limestone below. This contact was defined geochemically by a marked decrease in Fe and Cr values. Both groups of rocks faced westwards. The sequence in DDH CHP 241 is less clearcut. It has the appearance of a mixed facies with laminated carbonaceous limestones and black shales interbedded with a more dominant Crimson Creek style of wackes and siltstones. The Fe geochemistry suggests that the bulk of the sequence is Crimson Creek with small interbeds of carbonate facies rocks. The Cr geochemistry is much more erratic suggesting a more variably interbedded sequence.

The limestone bearing sequence seen in the bottom of CHP 238 does not outcrop on surface. The surface in the vicinity of the drill section is characterised lithologically and geochemically as Crimson Creek. Transposition of bedding into a steep cleavage has been previously recorded in the Colebrook areas. If the gross structure is typified by relatively flat dips this would explain the lack of correlation between the two drill holes and between the holes and the surface. The proposed stratigraphy in the area consists of an upper and western unit of sensu stricto Crimson Creek Formation rocks consisting of mafic to intermediate tuffaceous wackes and volcanic lithic wackes with interbedded siltstones and mudstones and rare basalts. This unit sits above and probably interfingers with a lower and eastern unit of mixed character comprising volcanic wackes, siltstones, quartz wackes, black shales and limestones.

<u>DDH CHP 243</u>

This hole was designed to test the down-dip extent of Sn mineralisation seen in:-

i) The Olympic No. 3 Lode, which, where it is exposed in a large stope on the Olympic No. 2 Level, returned assays of 6m at 1% Sn from a zone of banded limonitic clays.

ii) The Athenic No. 2 Lode which is present in the Athenic No. 2 Level as a zone of oxidised fractured sediments 2-3m wide which assayed just under 1% Sn.

The hole was located to test the inferred intersection of the two lode zones.

The hole intersected a sequence of slumped and brecciated fine to medium grained volcanic wackes and siltstones containing variable amounts of stringer pyrite and pyrrhotite mineralisation.

A zone of dolomitic marls and siltstones between 196m and 209m has been tentatively correlated with the banded limonitic clays of the Olympic No. 2 Level. These are unmineralised. If this correlation is correct, then the brecciation and quartz-carbonate-sulphide veining which occurs with varying intensity between 133.4m and 170.9m may represent the following:-

i) The Olympic No. 3 Lode zone which is now seen to be entirely fracture controlled and has no stratigraphic or lithological control.

ii) The Athenic No. 2 Lode zone.

iii) The intersection of both lode zones.

If alternative No. i) is correct, then the Athenic lode may be represented by the veined breccia zone between 104.0m and 109.4m. The thin quartz-sulphide veins which occur between 211.0m and 221.0m may then be related to the Olympic No. 2 Lode. If alternative No. ii) is correct then the zone from 211.0m to 221.0m may represent the Olympic No. 3 Lode.

Irrespective of which interpretation is correct, the assay intersections returned represent a significant reduction in thickness and grade from the mineralisation seen in the workings. The best intersections returned were:

106.0-107.0m	1m at 1440 ppm Sn; 2600 ppm As, 4300 ppm Cu.
143.0-144.0m	1m at 1280 ppm Sn, 450 ppm As, 290 ppm Cu.
154.0-155.0m	1m at 3030 ppm Sn, 5000 ppm As, 3550 ppm Cu.
169.0-170.0m	1m at 1200 ppm Sn, 3500 ppm As, 1400 ppm Cu.
215.0-218.0m	3m at 1100ppm Sn, 23 ppm As, 1850 ppm Cu.

4.2. East Colebrook

4.2.1. Work Completed

An access track approximately 1.5km long was constructed across Westcott Hill to access Dighem anomalies 'G' and 'H' (see Report No. 164).

Five stations on the track were accurately surveyed and the remainder of the track was surveyed by chain and compass traverse. The track was geologically mapped.

Three rock samples were submitted to C.M.S. for thin section petrological description.

4.2.2. Results Received

(Refer to Appx 2 - C.M.S. Report 83/9/35; Geology Plan No. AO-504-0191)

Thin section description of rock samples has caused minor modification to the mapped geology. Sample 53347 was mapped as a basic to intermediate volcanic within the Williamsford Volcanics member of the Rosebery Group. It has been described as an altered dolerite.

Sample 53349 was mapped as a dolomite occurring within the Williamsford Volcanics Member. The thin section report describes the rock as an argillised and carbonated volcanic, possibly originally a dacite. This is probably more consistent with its location within the Williamsford Volcanics Member. It does, however, imply that there are probably no bedded carbonate units at this level in the stratigraphy.

Sample 53355 comes from the Westcott Argillite Member of the Rosebery Group. The thin section report describes similarities with the Crimson Creek Formation tuffaceous rocks. This enhances the interpretation presented in Report No. 164. The East Colebrook Westcott Argillite, and the Colebrook Hill Crimson Creek Formation, were interpreted as sitting respectively on the east and west sides of an anticlinal core of Munro Creek Shales. The structural correlation is now enhanced by some lithological correlation.

Good exposures of part of the Rosebery Group were developed by the Westcott Hill track. Parts of the area however are covered by thick channel-filling fluvio-glacial deposits. From west to east along the track the following sequence is exposed:-

A. Interbedded black shales, dark grey siltstones and quartz wackes. Tight folds, detatched fold hinges and common boundinaging indicate extensive deformation of this unit.

B. A thin rhyolytic tuff unit.

C. More interbedded black shales, siltstones and quartz sandstones similar to unit A.

D. Purple, grey and green dolomitic siltstones and pale green carbonates.

E. Fuchsite bearing pebble and cobble conglomerate interbedded with siltstones and quartz lithic arenites. The conglomerate contains pebbles of carbonate, purple and grey siltstone, chert, and quartz sandstone.

Unit A, B and C are typical lithologies of the Munro Creek Shales. Unit D lithologies are typical of the Westcott Argillite and Unit E is typical Salisbury Conglomerate. The presence of obvious pebbles of Westcott Argillite and Munro Creek Shales lithologies within the Salisbury Conglomerate suggests that the base of the Conglomerate may be an erosional unconformity.

Dighem anomaly 'G' is centred on 5,372,100mN, 376,000mE. The track has exposed carbonaceous black shales of the Munro Creek Shales in this location.

Dighem anomaly 'H' is centred on 5,371,900mN, 376,350mE. The track has exposed cleaved and altered dolomitic siltstones of the Westcott Argillite in this location.

The present work has not changed the interpretation of the East Colebrook area in any significant way. The Westcott Hill track has provided very good exposures of the structural style within the Munro Creek Shales. The extensive deformation and the lithologies are almost identical to type sections of the Oonah Formation. The interpretation of the Munro Creek Shales as the lowest exposed unit of the stratigraphy in the East Colebrook area is consistent with a correlation of the unit with the Oonah Formation. ?

The Westcott Argillite is correlated stratigraphically with the Crimson Creek Formation. Lithologically it shows more variation than the Crimson Creek sensu stricto. In particular it contains a far higher content of dolomitic siltstones and limestones. In this respect it has strong similarities with the mixed facies sequence seen in the drill holes of the Olympic-Athenic area (refer section 4.1.2. above). The Westcott Argillite is interpreted therefore as an eastern equivalent of the Crimson Creek Formation, possibly it is mostly equivalent to the basal units of the Crimson Creek, but more probably it has an interfingering facies-equivalent relationship.

The Williamsford Volcanics are closely associated with the Westcott Argillite. The unit comprises felsic to intermediate strongly altered volcanics and dolerite intrusions. It is regarded as a volcanic phase within the Westcott Argillite and is correlated with the Crimson Creek Formation. The dolerites and the more intermediate volcanic units provide good lithological correlation with the Crimson Creek. The felsic nature of the bulk of the unit presumably reflects input from a different volcanic centre located probably to the east of the area.

The Salisbury Conglomerate lies, possibly unconformably above Crimson Creek Formation equivalent rocks. This suggests a Dundas Group age for the unit. The occurrence of fuchsite within the conglomerate implies a source of Cr at the time of formation. A Dundas Group age would make the unit younger than the Colebrook Serpentinite which is the most obvious source of Cr in the local vicinity.

The Natone Volcanics appear to conformably overlie the Salisbury Conglomerate. The rocks are felsic volcanics with much less alteration than the Williamsford Volcanics. They are interpreted as a westward extension of the Mount Read Volcanics belt. A Dundas Group age would be consistent with this interpretation.

The relationships of the Stitt Quartzite are not entirely clear. Lithologically it has closest affinites with the Munro Creek Shales, but it does not display the same structural style of intense deformation. Spatially it is associated with the Natone Volcanics. Its contacts in the East Colebrook area are mostly obscured but further north near Rosebery it appears to have fault contacts. The identification of detrital chrome-rich heavy minerals within Stitt Quartzite (refer Sample 53359 Report No. 164 page 4) suggests a post serpentinite age. The Stitt Quartzite is therefore interpreted as being a correlate of the Dundas Group.

4.3. Ring River

4.3.1. Work Completed

DDH RRP 239 was drilled to test the Ring River magnetic anomaly.
The hole parameters are:

Collar Co-Ordinates	:	5,367,087mN; 374,115mE A.M.G.
R.L.	:	441m a.s.l.
Dip	:	-60°
Azimuth	:	080° A.M.G.
Final Depth	:	568.5m

The hole was cased with 40mm diameter P.V.C. pipe.

The core was geologically logged in detail. Each lithological unit was sampled by sawing a representative 0.5m long fillet from the core. These fillets were sent to Analabs Pty. Ltd. and analysed for Cu, Pb, Zn, Ag, Fe, Mn, Cr by A.A.S. after nitric-perchloric digestion; for As by A.A.S. after vapoour hydride generation; and for Sn by XRF. Mineralised sections of the core were sampled by complete half-core split and also sent to Analabs. In addition to the above elements, the split core samples were also analysed for W by XRF and for Au by fire assay.

Magnetic susceptibility measurements were taken on the core every 0.2m using a Scintrex SM5 susceptibility bridge. Results were averaged over approximately 2m intervals for plotting.

Eighteen drill core samples were sent to C.M.S. for thin section petrological examination.

The geology of the Ring River area was reinterpreted in the light of the results from DDH RRP 239.

4.3.2. Results Received

(Refer to Appx 1. Log of DDH RRP 239; Appx 2. C.M.S. Report 83/10/14; RRP 239 Drill Hole Summary Sheet Plan No. AO-504-0319 and Ring River Geology Plan No. AO-504-0291)

Geology

The rocks intersected by DDH RRP 239 fall into two major groups lying respectively above and below a mineralised fault or fracture zone at about 400m down hole. The upper group is dominated by sedimentary breccias showing a range of plastic mass-flow and soft-sediment slumping textures, interbedded with less disrupted fine grained sediments. The upper group can be divided into three units showing slightly different character and associations.

I From 0 to 106.4m - Siltstones and quartz wackes are interbedded with felsic lithic tuffs, possibly reworked.

II From 106.4 to 328.5m - An essentially quartzose sequence without volcanic components consists of sedimentary breccias, grey to black sandstones, siltstones and mudstones and is characterised by occasional thin polymict conglomerates and by quartzite units containing detrital heavy mineral bands. These bands contain significant chromite.

III From 328.5 to 394.7 - Reworked felsic tuffs and lithic wackes are interbedded with sedimentary breccias.

Units I and III could be the same unit repeated by faulting or folding. There is insufficient evidence to support or refute this. Facing evidence is poor, and in a sequence with so much pre-lithification slumping and brecciation any facings may only be of very local significance. A fairly major brecciated fracture zone at 170m may fault-repeat some of the sequence, as may several other smaller zones of tectonic brecciation. Lack of a distinctive marker, however, makes the extent of any fault-repetition of the sequence impossible to estimate. The upper group rocks in RRP 239 are interpreted, therefore, as one, essentially continuous, sequence of turbidite facies sediments showing a cyclic pattern of felsic volcanic input.

Unit III rocks represent a period of mixed volcaniclastic and terriginous sediments reflecting a mixed provenance of felsic volcanic, and siliceous ?sediment terrains.

Unit II rocks represent a waning of vulcanism and a provenance of siliceous sediments only. There is also some evidence of shallower water facies in Unit II.

Unit III represents a return of felsic vulcanism and a mixed provenance for the sediments.

The cycles of felsic volcanic detritus are presumably related to episodic volcanism within the Mt. Read Volcanics which lie to the east of this area.

The lithologies of the upper group of rocks in RRP 239 are consistant with the Western Sequence, in particular with the more distal trough facies of the Western Sequence. Unit II contains members which have similarities with the Stitt Quartzite and the Salisbury Conglomerate seen to the north in the East Colebrook area.

The rocks in the lower section of RRP 239 below 400m are very different in character. They can be divided into a further two units.

IV. From 405.3 to 554.3m - Intermediate to mafic lithic tuffs, reworked tuffs, mafic volcanic lithic wackes, and interbedded mudstones and minor breccias. The unit also contains an altered gabbroic intrusive.

V. From 554.3 to 568.5 - Sedimentary breccia, black carbonaceous mudstone and pale grey quartz arenite with no volcanic component.

The rocks of Unit IV are very similar in hand specimen, thin section, and geochemistry (see below) to rocks of the Crimson Creek Formation. The rocks in Unit V are similar to Unit II but there is no obvious fault contact between Units IV and V which could be invoked to relate Units II and V. The association of black carbonaceous mudstone and clean quartz arenite is very typical of the Munro Creek Shale lithologies seen to the north in East Colebrook.

A weak penetrative cleavage occurs throughout DDH RRP 239. Core angles imply a 70-85° East dip. Core angles of rock contacts and bedding planes vary from sub parallel up to 65° implying dips ranging from 60°East through vertical to 55° West. Bedding orientations in slump breccias need not reflect the gross structure, and this may account for some of the spread in bedding orientations. In other parts of the Colebrook-Ring River area transposition of the bedding into the cleavage has been observed. This also would explain the spread of bedding orientations and suggest that the moderate westerly dips are most likely to reflect the gross bedding plane orientation. This is consistant with the original interpretation that RRP 239 would be drilled into the west dipping limb of an anticline which had a flat to shallow northerly plunge.

Stratigraphic correlations for the rocks in DDH RRP 239 have been interpreted according to the following table.

Unit I	≡	Western Sequence		
Unit II	≡	Stitt Quartzite, Conglomerate units may relate to the level of the Salisbury Conglomerate and/or the Razorback Conglomerate.	≡	Dundas Group
Unit III	≡	Western Sequence. Felsic Volcanic units may relate to the level of the Natone Volcanics.		
Unit IV	≡	Westcott Argillite and Williamsford Volcanics	≡	Crimson Creek Formation
Unit V	≡	Munro Creek Shale	≡	Oonah Formation

The geology of the Ring River area has been re-interpreted using the above correlations (Plan No. AO-504-0291). The results from RRP 239 have been given a strong weighting in the interpretation because, apart from the section along the Ring River, outcrop is fairly poor across the area. Some of the outcrop patterns shown on the interpreted plan have a very odd shape. This is due to the interaction of very rugged terrain on a strongly folded and faulted sequence. For example the amoeboid blob of Westcott Argillite in the Ring River is exposed only because the River has cut a deep gorge across the top of a flat plunging anticline. The outcrop boundaries are defined by the topographic contours on the enclosing hill slopes. This unit of Westcott Argillite is correlated directly with Unit IV in RRP 239 although the tuffs outcropping in the river appear more felsic than those in the drill hole. If the 20°N plunge on the anticline measured in the river persists to the south, it implies that Westcott Argillite should exist at less than 100m depth at about 374,450mE on the drill hole section, and should outcrop again on the higher ground south of the drill hole. If this is the case then the Ring Valley Fault, which is interpreted as the contact between the Dundas Group and Westcott Argillite in RRP 239 must have a throw of over 300m.

The triangular shaped wedge of country bounded by the Bather Creek Fault, the Conliffe Creek Fault and the southern edge of the plan has been interpreted as Westcott Argillite. There have been no really diagnostic lithologies mapped in this section but structural criteria suggest that the Moores Pimple area is a structural high, brought up along a W.N.W. trending (F_2) open anticlinal arch, which should expose some of the lower units in the stratigraphy. If the Moores Pimple Gabbro can be corelated with the gabbro intrusion in RRP 239, this would reinforce the interpretation of the surrounding rocks as Westcott Argillites.

Allocation of sections of the stratigraphy to the Stitt Quartzite is done essentially on the presence of clean quartzite and quartz arenite lithologies. The Stitt Quartzite may be more of a facies indicator rather than an indicator of a unique level within the stratigraphy.

<u>Geochemistry</u>

The geochemical analyses of DDH RRP 239 core support the geological interpretation presented above. The lower tuffaceous rocks of Unit IV display the high Fe and Cr values which are typical of the Crimson Creek Formation as seen previously on Colebrook Hill. Average values for Unit IV are about 8% Fe and 300 ppm Cr. Equivalent averages for the upper unit rocks are about 4% Fe and 50 ppm Cr. Sporadic high Cr values within Unit II rocks are due to detrital chromite in heavy mineral bands in quartzites. Unit IV rocks also show more marginal increases in Cu and Zn over the other units. This is consistant with the more mafic character of Unit IV. Lead is uniformly low throughout. Arsenic is strongly sulphide associated, attaining values in the percents range in the split core samples. It is otherwise generally of low background throughout. Tin is essentially non-existant in the fillet samples. A maximum value of 11 ppm Sn was reported and only 9 out of 116 fillet samples reported Sn values above the 3 ppm detection limit. Sn reached a high of 72 ppm Sn in the split core samples. The average for the 22 split core samples was only 17 ppm Sn. Tungsten was analysed only in split core but was also very low with a highest value of 55 ppm W.

Mineralisation

Significant sulphide mineralisation occurs in two relatively thin bands in DDH RRP 239. The first interval occurs between 397.4m and 405.3m in a strongly silicified and quartz veined zone of tectonic breccia. This fault or fracture zone marks the contact between the upper Dundas Group rocks and the lower Crimson Creek Formation rocks in the drill hole. Pyrite, lesser pyrrhotite and minor chalcopyrite and arsenopyrite occur as disseminations, stringers, blebs and, rarely, as thin massive veins or bands. Total sulphide content is about 2% from 397.4 to 399.35m and about 10% from 399.35 to 405.3m. Iron values for this interval appear anomalously low for the high sulphide content. This is due to the analytical technique used. Nitric-perchloric dissolution does not successfully bring into solution the Fe contained in pyrite, or arsenopyrite.

Significant assay values from this interval are:-

400.4-401.4m; 1.0m at 1.94% As, 140 ppm Ag, 695 ppm Cu.
402.2-402.9m; 0.7m at 2.10% As, 84 ppm Ag, 0.18 ppm Au.

If this mineralised fracture zone is given a dip of 80°E parallel to the cleavage, it projects exactly onto the line of the Ring Valley Fault. This Fault appears to locate the mineralisation in the Ring Valley and Fahlore Mines to the north of the drill hole. The mineralisation in these old mines also contained Ag and As. The Ag was higher and the As lower, and they also contained significant amounts of Cu, Pb and Zn. The R.L. of the Fahlore Mine is 250m a.s.l. The intersection in RRP 239 is at an R.L. of 100m a.s.l. The difference in mineral assemblage between the two zones may reflect a systematic depth-temperature zonation to the mineralisation system.

The second zone of significant sulphide mineralisation in RRP 239 occurs between 518.7m and 523.3m. A brecciated black mudstone between 521.6 and 521.95m is annealed by veins of arsenopyrite totalling about 40%. The surrounding wall rocks contain up to 5% disseminated and stringer pyrite, pyrrhotite, arsenopyrite and minor chalcopyrite.

Significant assay values from this zone are:

518.7-519.7m ; 1.0m at 0.29% Cu
521.0-521.6m ; 0.6m at 0.65 ppm Au, 0.27% As
521.6-521.95m; 0.35m at 15.0% As.

A comparison of the Sn and W contents between the two mineralised zones shows a concentration of Sn in the upper zone over that of the lower zone. For W the reverse is the case. This may further reflect a systematic depth-temperature zonation to the mineralisation system.

Small amounts of sulphides occur elsewhere in RRP 239. Coarse grained pyrite occurs with some quartz and carbonate veins in small breccia zones. Sedimentary breccias and mudstones may contain trace to 1% disseminated, possibly syngenetic pyrite. Almost the entire core below about 485m contains 1% to 2% disseminated and stringer pyrite and pyrrhotite. Over narrow intervals this may increase to 5%. Analyses of these rocks did not contain any significant metal values.

<u>Geophysics</u>

Magnetic susceptibility measurements on RRP 239 core give the following averaged values in c.g.s. units:-

0 -400.4m	less than 0.0001
400.4-404.2m	0.0035
404.2-510.0m	less than 0.0001
510.0-568.4m	0.0002

The last interval breaks down into:

510.0-513.4	3.4m at 0.00019
513.4-519.6	6.2m at Zero
519.6-520.8	1.2m at 0.00043
520.8-532.8	12.0m at 0.00004
532.8-540.6	7.8m at 0.00065
540.6-552.0	11.4m at 0.00006
552.0-568.4	16.4m at 0.00025

DDH RRP 239 was drilled to test the Ring River magnetic anomaly. The data from this anomaly was subjected to repeated manipulation to test different possible model body sources (refer E.Z. Reports No's 158 and 164). The most favoured model solution was a cylindrical vertical body, most probably an intrusive stock, or possibly a hornfels zone around an intrusive. The body would have a top around 300m below ground surface and a susceptibility contrast of 0.003 c.g.s. units. Sedimentary or stratiform solutions were considered possible. A folded sediment such as an anticlinal core would fit the anomaly if it were in excess of 250m thick and have a susceptibility contrast of 0.005 c.g.s. units. Stratiform mineralisation such as a Renison orebody would also fit the anomaly. The model parameters required were; three massive sulphide lenses, each 15 to 20m thick, with a susceptibility contrast of 0.015 c.g.s. units, lying in the depth range 200-400m below surface.

The measured susceptibility values do not fit any of the proposed models for the anomaly. The highest susceptibility interval is the mineralised zone around 400m, and is a reflection of the thin bands of pyrrhotite within the interval. Similarly the weakly susceptible rocks below 510m reflect stringers and thin veinlets of pyrrhotite. The location of RRP 239 was carefully chosen to provide the optimum chance of intersecting the "Renison" model body and the intrusive stock model body. Deflection on the hole was well controlled and the hole passed through the modelled locations.

Built into all the magnetic modelling was the proviso that each model body could exist at greater depth if there were a corresponding increase in the susceptibility contrast. This virtually precluded the sedimentary solution, as the proposed model contrast of 0.003 c.g.s. units was already very high for a sediment. The "Renison" model suffered similar constraints on its depth of occurrence. By a process of elimination, this suggests that the Ring River magnetic anomaly is due to a more deeply buried intrusive igneous body with a higher susceptibility contrast.

4.4. White Spur

4.4.1. Work Completed

The sample pulps from previously drilled holes DDH JCP 211 and JCP 216 were resubmitted to Analabs Pty. Ltd. and analysed for Au by fire assay.

4.4.2. Results Received

(Refer to Appx 1. Drill Hole Log Sheets JCP 211, JCP 216)

No significant results were returned from the Au analyses of DDH JCP 211, 216 core. Maximum reported value was 0.025 ppm Au. Forty-four percent of the samples were below the detection limit of 0.008 ppm Au.

APPENDIX 1 Diamond Drill Hole Logs

CHP 240
CHP 241
CHP 243
RRP 239
JCP 211
JCP 216

ELECTROLYTIC ZINC CO. OF A'ASIA LTD.
ROSEBERY – TASMANIA

DIAMOND DRILL CORE RECORD

01 HOLE No. (3-7) CHP 240 1 of 7

LOCATION Colebrook Hill

OBJECTIVE To test conductive body detected below CHP 228 by down hole SIROTEM survey.

RESULT Hole intersected two bands, 181-205 and 222.5-229 of massive and semi-massive pyrrhotite ± chalcopyrite within a zone of intense calc-silicate alteration (181-185 ave 1.85% Cu 188-124 av 1.18%

TOTAL DEPTH 2 1 4m
HOLE SIZE HQ-12 NQ-9t CO-EOH
COMMENCED 26.5.83
COMPLETED 7.6.83
LOGGED BY I.J. Mathison

03

8-12 Footage	13-16 Direction A.M.G.	17-18-21 Dip.	8-12 Footage	13-16 Direction A.M.G.	17-18-21 Dip.
50	100	63	250	110	59
92	101	62	284	110	58
140	107	61			
178	114?	61			
212	110?	60			

02
ORE DIP. (8-11)
COLLAR DIP. (12-15) 64°
DIRECTION (16-19) 100AMG
R.L. (20-23) 477.3
CO-ORDS. 374,950.5E 5,371,702.9N
LOCATION Colebrook Hill

04

FOOTAGE FROM	FOOTAGE TO	ROCK DESCRIPTION	MINERALISATION	SAMPLE No.	8-13 FROM	14-19 TO	CORE REC'D	Sample Length	20-25 Pb%	26-31 Zn%	32-37 Cu%	38-43 Ag - g/t	44-49 Au - g/t	50-55 Fe%		CORE REC'D RUN	CORE REC'D SHORT
																0	
0	12.0m	Non core drilling														12.0	NR
12.0	20.0m	Indurated green grey and dark grey fine to medium grained volcanic wacke and siltstone. Graded bedding and scour and fill give good up hole (west) facing; c.b.a. 35°														100% recovery throughout remainder of hole.	
20.0	29.0m	Indurated green grey fine grained volcanic wacke and dark grey siltstone. Incipient bleaching around irregular fractures and some thin permeable beds. c.b.a. 50°															
29.0	38.0m	As above. c.b.a. 45°	35-36 Thin quartz, +actinolite +pyrrhotite +chalcopyrite vein & very thin sulphide veins - pyrrhotite+chalcopyrite±arsenopyrite														
38.0	47.0m	Indurated dark grey siltstone & green grey volcanic wacke. Bedding possibly sheared c.b.a. 30°	Several thin (0.5-2cm) quartz +chlorite+sulphide and sulphide veins - sulphides pyrrhotite+ chalcopyrite±arsenopyrite														
47.0	54.5m	As above - some tectonic brecciation re-healed by quartz+chlorite with minor sulphides	52.9 Small patch of quartz + pyrrhotite+chalcopyrite and associated sulphide veinlets														
54.5	65.6m	Indurated green grey volcanic wacke and minor dark grey siltstone. Incipient bleaching around irregular fractures c.b.a. 30°															

48025

A 1(?)

ELECTROLYTIC ZINC CO OF A'ASIA LTD
ROSEBERY – TASMANIA

DIAMOND DRILL CORE RECORD

HOLE No. CHP 240 2 of 7

A 11241

FOOTAGE FROM	FOOTAGE TO	ROCK DESCRIPTION	MINERALISATION	SAMPLE No.	8-13 FROM	14-19 TO	CORE REC'D	ASSAY DATA Sample Length	20-25 Pb%	26-31 Zn%	32-37 Cu%	38-43 Ag - g/t	44-49 Au - g/t	50-55 Fe%		CORE REC'D RUN	CORE REC'D SHORT
65.6	71.4m	Indurated dark grey siltstone and green grey volcanic wacke.	Several thin (0.5-4cm) quartz +sulphide and sulphide veins & scattered irregular quartz sulphide veinlets. Sulphides = pyrrhotite+chalcopyrite One thin arsenopyrite+sulphide vein														
71.4	78.5m	Indurated green grey volcanic wacke and dark brown siltstone. Rocks bleached pale green grey in bands & patches. C.B.A. 45°	N.V.M.														
78.5	81.5m	Green grey indurated volcanic wacke.	Two sets thin quartz sulphide veins 35° & 70° to core axis; 2% pyrrhotite+chalcopyrite+ arsenopyrite														
81.5	86.5m	Dark grey indurated siltstone- brecciated silicified and annealed in patches.	Similar cross cutting veins to above but much less common.														
86.5	88.8m	Indurated green grey volcanic wacke															
88.8	93.0m	Indurated dark grey siltstone and fine grained volcanic wacke. Irregular pale green alteration along microfractures increasing.															
93.0	96.0m	Dark grey siltstone and green grey volcanic wacke with common pale green alteration around irregular cross cutting fractures Patches of brecciation rehealed by quartz.															
96.0	104.0m	Green grey volcanic wacke and banded silicified siltstone. Bedding planes often disturbed along rehealed microfractures and brecciation. c.b.a. 35°															
104	107.0m	Indurated dark grey siltstone	Occassional thin quartz+calcite+ pyrrhotite+chalcopyrite veins and pyrrhotite veinlets														

ELECTROLYTIC ZINC CO OF A'ASIA LTD
ROSEBERY – TASMANIA

DIAMOND DRILL CORE RECORD

A 11241

FOOTAGE FROM	TO	ROCK DESCRIPTION	MINERALISATION	SAMPLE No.	8-13 FROM	14-19 TO	CORE REC'D	ASSAY DATA Sample Length	20-25 Pb%	26-31 Zn%	32-37 Cu%	38-43 Ag - g/t	44-49 Au - g/t	50-55 Fe%		CORE REC'D RUN	SHORT
107.0	110.0m	Indurated dark grey siltstone and green grey altered siltstone. Bedding disrupted	3% pyrrhotite+chalcopyrite disseminated in irregular veinlets, in brecciated zones and in rare thin quartz veins.														
110	114.0m	Dark grey and green grey disrupted siltstone.	Minor pyrrhotite with chalcopyrite and arsenopyrite with small patches of quartz.														
114	115.3m	Brecciated altered siltstone-silicified and mineralised	20% pyrrhotite+chalcopyrite +arsenopyrite. po+cp as idss-disseminated replacements & asp+cp in thin veins.														
115.3	119.0m	Indurated dark grey siltstone and fine grained volcanic wacke. Bedding planes disrupted	2% pyrrhotite and minor chalcopyrite disseminated and in veinlets.														
119	124.0m	Indurated dark grey siltstone and green grey volcanic wacke.	5cm pyrrhotite+chalcopyrite at 121. 7cm quartz +po+cp at 121.3, minor disseminated and veinlet po+cp														
124	131.0m	Interbedded brown and dark grey indurated siltstone. Bedding often disrupted - cba 40°	5-10% pyrrhotite with minor chalcopyrite and arsenopyrite as irregular veinlets and replacements and as thin conformable bands														
131	135.0m	Dark grey fine grained volcanic wacke bleached pale green in patches	2% pyrrhotite in irregular veinlets.														
135	137.3m	Brown and dark grey indurated siltstone Bedding often disrupted - cba 35° 136.0 15cm breccia rehealed by quartz + actinolite+minor chalcopyrite	5% pyrrhotite as veinlets and thin conformable bands														
137.3	139.4m	Dark brown and green grey siltstone and volcanic wacke. Minor dark green hornblende alteration at 139.2, cba 20°	5-10% pyrrhotite and minor chalcopyrite within conformable bands and veinlets														
139.4	140.4m	Brecciated siltstone and volcanic wacke with moderate quartz and dark green hornblende alteration.	5% pyrrhotite and chalcopyrite in veinlets														

48602

ELECTROLYTIC ZINC CO OF A'ASIA LTD
ROSEBERY – TASMANIA

DIAMOND DRILL CORE RECORD

HOLE No. CHP 740

A 11241

FOOTAGE FROM	FOOTAGE TO	ROCK DESCRIPTION	MINERALISATION	SAMPLE No.	8-13 FROM	14-19 TO	CORE REC'D	ASSAY DATA Sample Length	20-25 Pb%	26-31 Zn%	32-37 Cu%	38-43 Ag - g/t	44-49 Au - g/t	50-55 Fe%		CORE REC'D RUN	CORE REC'D SHORT
140.4	141.1m	Brecciated dark grey siltstone and ?basalt	5% arsenopyrite as open space fillings and replacements, predominantly in altered ?basalt														
141.1	142.4m	Dark grey annealed breccia of cherty siltstone – minor carbonate veining	5% pyrrhotite and minor chalcopyrite in veinlets rehealing breccia.														
142.4	147.4m	Brown and dark grey siltstone and fine grained volcanic wacke with patches of quartz actinolite alteration, cba 35°	5% pyrrhotite and chalcopyrite as veinlets through country rocks and replacements in alteration.														
147.4	158.8m	Brown and dark grey siltstone and volcanic wacke bleached pale green around thin quartz-actinolite veins and patches	Minor pyrrhotite in veinlets throughout. Pyrrhotite+arsenopyrite and minor chalcopyrite veining over last 20cm														
158.8	163.0m	Dark green grey altered volcanic wacke – cross fracturing rehealed by quartz actinolite veinlets	2-3% pyrrhotite and minor chalcopyrite in irregular veinlets, replacements and thin veins.														
163	166.0m	Brown and dark grey thin bedded siltstone and volcanic wacke. Some quartz-actinolite alteration in more fractured zones	10% pyrrhotite as thin conformable bands and cross cutting veinlets.														
166	169.3	Dark green fine grained volcanic wacke and interbedded siltstone. Patches of quartz actinolite alteration with minor axinite 169.3-246.2 Zone of intense calc silicate alteration and sulphide mineralisation	Very minor chalcopyrite in chlorite veinlets.														
169.3	170.0m	Dark green intensely altered volcanic wacke. Axinite and quartz+actinolite alteration	Minor disseminated chalcopyrite														
170	171.5m	Dark green altered volcanic wacke – carbonate alteration	5% chalcopyrite and 5% pyrrhotite. Cp disseminated and also associated with patches of pyrrhotite														

480028

ELECTROLYTIC ZINC CO OF A'ASIA LTD
ROSEBERY – TASMANIA

DIAMOND DRILL CORE RECORD

HOLE No. CHP 240

A 11241

FOOTAGE FROM	FOOTAGE TO	ROCK DESCRIPTION	MINERALISATION	SAMPLE No.	8-13 FROM	14-19 TO	CORE REC'D	ASSAY DATA Sample Length	20-25 Pb%	26-31 Zn%	32-37 Cu%	38-43 Ag g/t	44-49 Au g/t	50-55 Fe%		CORE REC'D RUN	SHORT
171.5	176.0m	Mauve axinite rock and pale green quartz +actinolite+axinite+calcite															
176	181.0m	Green altered volcanic wacke, siltstone and pale grey chert. Patches of mauve axinite and dark green hornblende.	1-5% disseminated and veinlet pyrrhotite with minor chalcopyrite.														
181	190.0m	Mineralised axinite rock and intensely altered volcanic wacke and siltstone. Possible bedded pyrrhotite 185-187, cba 55-60°	10-50% sulphides - pyrrhotite with 2-5% chalcopyrite. Occasional arsenopyrite veinlets cut earlier sulphides														
190	194.0m	Massive and banded pyrrhotite and dark green hornblende. Small patches of axinite and pale green actinolite, cba 45-70°	50-70% pyrrhotite with 3-5% chalcopyrite as massive and banded replacements														
194	197.0m	Dark green hornblende rock grading to mauve and pale green axinite-actinolite rock	10-30% pyrrhotite 1% chalcopyrite, and trace arsenopyrite														
197	199.1m	Banded axinite-actinolite-pyrrhotite rock cba 60°	20% pyrrhotite, 2% chalcopyrite and minor arsenopyrite														
199.1	200.4m	Dark green altered volcanic wacke and dark brown chert with small patches axinite + actinolite	Minor pyrrhotite and chalcopyrite in axinite-actinolite rock. Minor latestage arsenopyrite in fractures & veins														
200.4	201.0m	Axinite-actinolite-pyrrhotite rock	30% pyrrhotite and 3% chalcopyrite														
201	203.0m	Altered volcanic wacke, siltstone and brecciated dark brown chert. Patches of axinite + actinolite	10-20% pyrrhotite as conformable bands and veinlets 1% chalcopyrite and minor arsenopyrite.														
203	205.0m	Actinolite-axinite-pyrrhotite rock - banded in places, cba 50°	30-40% pyrrhotite and 1-2% chalcopyrite														
205	209.0m	Dark green altered volcanic wacke with bands and patches of mineralised axinite-actinolite rock	5-10% pyrrhotite and minor chalcopyrite and arsenopyrite disseminated and in veinlets														

48029

ELECTROLYTIC ZINC CO OF A'ASIA LTD
ROSEBERY – TASMANIA

DIAMOND DRILL CORE RECORD

HOLE No. CHP 240 5 of 7

A 11241

FOOTAGE FROM	FOOTAGE TO	ROCK DESCRIPTION	MINERALISATION	SAMPLE No.	8-13 FROM	14-19 TO	CORE REC'D	ASSAY DATA Sample Length	20-25 Pb%	26-31 Zn%	32-37 Cu%	38-43 Ag - g/t	44-49 Au - g/t	50-55 Fe%		CORE REC'D RUN	CORE REC'D SHORT
209	211.1m	Banded pyrrhotite-actinolite rock with minor axinite and quartz veinlets cba 50°	60% pyrrhotite and 3% chalcopyrite														
211.1	215.0m	Banded axinite-actinolite rock and dark green altered volcanic wacke, cba 40-45°	5% pyrrhotite and minor chalcopyrite														
215	218.0m	Pale green grey actinolite limestone	Minor disseminated pyrrhotite throughout 5mm pyrrhotite + arsenopyrite vein at 216.4														
218	222.5m	Pale green grey actinolite limestone with thin beds of dark grey siltstone cba 50-60° conformable pyrrhotite bands.	10% pyrrhotite with minor arsenopyrite and chalcopyrite in bands and patches.														
222.5	223m	Pyrrhotite with axinite and actinolite.	70% pyrrhotite and 3% chalcopyrite.														
223	229m	Mineralised banded actinolite-axinite+ calcite rock with thin dark green grey siltstone bands. Cbs 40-60° often disrupted by shearing.	20% pyrrhotite in irregular cross cutting veinlets and replacement patches.														
229	233.8m	Dark green grey volcanic wacke and bands of actinolite-axinite rock.	5-10% pyrrhotite with minor chalcopyrite and arsenopyrite as irregular replacements and veins.														
233.8	246.2m	Dark green grey volcanic wacke and dark grey cherty siltstone with bands and patches of actinolite-axinite rock Cba 40-60°	Minor pyrrhotite and chalcopyrite in some patches actinolite-axinite rock and occassional thin irregular chalcopyrite and arsenopyrite veins														
246.2	251.7m	Dark brown siltstone (not indurated) with some small patches and veins of axinite-actinolite and quartz+hornblende veins	Occassional pyrrhotite+chalcopyrite veins. Minor sulphides associated with amphibole veins and patches.														
251.7	254m	Dark brown siltstone with occassional quartz veins'	Rare thin chalcopyrite veins														

48030

ELECTROLYTIC ZINC CO OF A'ASIA LTD
ROSEBERY – TASMANIA

DIAMOND DRILL CORE RECORD

A 11241

FOOTAGE FROM	FOOTAGE TO	ROCK DESCRIPTION	MINERALISATION	SAMPLE No.	8-13 FROM	14-19 TO	CORE REC'D	ASSAY DATA Sample Length	20-25 Pb%	26-31 Zn%	32-37 Cu%	38-43 Ag - g/t	44-49 Au - g/t	50-55 Fe%		CORE REC'D RUN	SHORT
254	257m	Dark brown siltstone with several cross cutting sulphide veins and irregular quartz-carbonate veinlets	Minor pyrrhotite and chalco-pyrite in sulphide and quartz sulphide veins.														
257	278m	Dark brown cherty siltstone and fine grained volcanic wacke. Small patches and bands of green alteration. Cba 40-50°	260-260.3m Quartz+pyrrhotite+chlacopyrite vein. Elsewhere occassional quartz pyrrhotite veinlets and rare thin veins.														
278	291.4m	Dark brown siltstone and fine grained volcanic wacke. Very minor green alter-ation along some fractures. Cba 45°	Irregular veins and veinlets with pyrrhotite and chalco-pyrite in quartz or carbonate														
	EOH																

48603

D.D.H. CHP 240 — ANALYTICAL RESULTS

Page 1

Sample Type
S = ½ core split
F = Fillet.
G = Grind

Sample No.	Depth From	Depth To	Sample Interval	Sn	As	Ag	Cu	Pb	Zn	Mn	Fe%	Cr	W	Au	S%
G 44959	12	14	1	17	470	x	185	30	210	820	8.55	105			
44960	14	17	3	16	2500	x	385	10	180	880	9.40	90			
F 961	17	20	3	x	87	x	305	5	145	915	8.95	100			
962	20	23	3	39	56	x	195	10	165	1050	8.55	150			
963	23	26	3	36	60	x	100	5	160	906	7.90	90			
964	26	29	3	5	25	x	75	x	140	870	7.85	100			
965	29	32	3	x	x	0.5	80	x	145	840	8.45	105			
966	32	35	3	23	5	x	390	x	135	760	8.70	110			
967	35	38	3	16	950	0.5	260	x	115	810	8.75	125			
968	38	41	3	9	35	x	180	x	120	810	8.50	85			
969	41	44	3	10	2500	x	335	5	105	765	9.95	105			
44970	44	47	3	4	180	x	80	15	115	800	8.80	90			
971	47	50	3	21	35	x	115	10	110	765	8.45	75			
972	50	53	3	8	36	x	130	10	105	795	8.55	85			
973	53	56	3	16	36	x	100	10	110	900	9.00	95			
974	56	59	3	26	9	x	80	15	130	965	8.95	110			
975	59	62	[illegible]	19	1	x	100	15	130	905	7.60	100			
976	62	65	3	29	13	x	70	10	140	975	8.45	100			
977	65	68	3	10	22	x	225	15	110	895	9.80	85			
978	68	71	3	6	1600	x	395	5	115	915	9.50	85			
979	71	74	3	36	16	x	145	5	125	890	8.25	110			
4980	74	77	3	26	20	x	95	x	105	815	7.40	100			
981	77	80	3	13	1100	x	620	x	125	935	11.0	120			
982	80	83	3	8	1800	x	360	x	110	905	11.0	100			
983	83	86	3	6	200	x	200	x	90	990	8.40	115			
984	86	89	3	x	50	x	55	x	90	885	8.95	100			
985	89	92	3	10	43	x	105	x	75	695	6.95	75			
986	92	95	3	34	92	x	120	10	80	750	5.85	120			
987	95	96	1	6	51	x	320	x	95	825	9.75	105			
988	96	98	2	4	33	x	65	5	80	690	8.05	95			
989	98	101	3	4	51	0.5	70	x	75	575	7.35	75			
4990	101	104	3	42	180	x	165	x	85	600	6.30	85			
991	104	107	3	10	340	x	120	5	75	625	7.20	65			
992	107	110	3	48	110	x	680	5	105	710	6.00	70			
993	110	113	3	53	900	x	300	20	100	530	5.25	70			
994	113	114	1	84	220	0.5	55	10	70	610	3.15	85			
S 995	114	115.3	1.3	222	9000	30	3.02%	160	2000		14.94	140	x	0.17	6.20
996	115.3	116	0.7	53	3.70%	1.5	320	65	150		9.19	185	x	0.01	0.48
F 997	116	119	3	x	680	x	800	x	90	750	9.10	100			
998	119	122	3	14	740	0.5	2400	5	130	680	9.10	110			
999	122	125	3	5	100	x	515	x	55	1195	6.95	105			

Page 2

D. D. H. CHP 240 ANALYTICAL RESULTS

Sample Type
S = ½ core split
F = Fillet.
G = Grind

	Sample No.	Depth From	Depth To	Sample Interval	Sn	As	Ag	Cu	Pb	Zn	Mn	Fe %	Cr	W	Au	S %
F	5000	125	128	3	9	28	x	415	x	65	460	7·60	140			
	53601	128	131	3	9	51	x	375	10	55	395	7·00	75			
	602	131	134	3	8	80	x	130	x	65	520	7·75	70			
S	603	134	135	1	81	600	1·0	215	5	105		8·99	75	14	x	0·27
	604	135	136	1	16	120	0·5	500	x	70		7·25	105	x	x	1·25
	605	136	13	1	21	110	1·0	455	x	60		8·48	160	18	x	2·55
	606	137	138	1	5	80	1·0	290	x	50		8·34	150	x	x	2·85
	607	138	139	1	26	380	1·0	410	x	65		9·07	120	x	x	2·10
	608	139	140	1	104	340	1·0	625	x	100		7·87	210	x	x	1·30
	609	140	141	1	232	4·30%	2·0	930	x	85		8·33	285	x	x	1·95
	3610	141	142	1	141	4500	2·5	1550	x	95		6·62	675	57	x	1·15
	611	142	143	1	42	200	0·5	770	x	95		9·48	135	x	x	2·35
	612	143	144	1	22	140	0·5	495	x	45		8·11	195	x	x	1·75
	613	144	145	1	6	80	1·0	735	x	65		13·48	75	17	x	2·85
	614	145	146	1	58	150	0·5	240	x	90		11·09	100	12	x	0·89
G	615	146	149	3	27	180	x	785	10	210	625	8·65	45			
	616	149	152	3	17	84	x	51[illegible]	5	310	620	9·20	45			
F	617	152	155	3	24	65	x	60	x	75	495	7·45	45			
	618	155	158	3	8	79	x	105	x	70	550	7·80	70			
	619	158	161	3	3	2400	x	3950	x	140	815	10·5	120			
	53620	161	164	3	4	45	x	140	x	60	500	7·25	90			
	621	164	166	2	10	93	x	550	x	45	300	5·75	130			
F	622	166	167	1	155	130	x	30	10	60	750	3·80	115			
	623	167	170	3	312	610	0·5	125	45	165	2200	5·50	95			
S	624	170	171·5	1·5	323	8300	13·5	1·72%	195	1200		18·4	50	345	x	5·15
F	625	171·5	173	1·5	497	4300	x	330	25	130	5600	3·90	115			
	626	173	176	3	377	11600	x	30	30	125	4500	4·75	95			
	627	176	179	3	201	200	x	210	5	120	1400	3·35	65			
S	628	179	180	1	210	1600	1·0	640	x	100		9·64	140	12	x	0·29
	629	180	181	1	244	2700	2·0	2600	x	160		16·22	65	13	x	1·45
	53630	181	182	1	135	7400	16	1·98%	x	885		17·75	90	57	x	6·05
	631	182	183	1	277	2·80%	15	2·37%	x	1250		18·55	110	1290	x	7·00
	632	183	184	1	183	2·05%	9·0	1·22%	x	520		25·5	75	149	x	12·80
	633	184	185	1	116	1·65%	12·5	1·82%	x	835		38·3	55	290	x	19·80
	634	185	186	1	366	7850	1·5	1800	x	145		28·12	70	x	x	4·45
	635	186	187	1	452	4100	2·5	4500	x	240		23·6	70	160	x	5·75
	636	187	188	1	346	1·75%	11·0	1·73%	x	635		29·6	85	28	x	13·00
	637	188	189	1	285	2·25%	6·5	1·06%	x	450		24·3	125	110	x	10·60
	638	189	190	1	201	9400	10·0	1·63%	x	655		30·3	125	694	x	13·50
	639	190	191	1	165	2550	4·5	9000	x	235		42·2	65	51	x	20·00
	3640	191	192	1	202	2400	6·0	1·26%	5	410		39·7	45	111	x	21·10

Page 3

D.D.H. CHP 240 ANALYTICAL RESULTS

Sample Type
S = ½ core split
F = Fillet
G = Grind

Sample No.	Depth From	Depth To	Sample Interval	Sn	As	Ag	Cu	Pb	Zn	Mn	Fe%	Cr	W	Au	S%
S53641	192	193	1	217	6900	5.0	9450	x	390		35.5	65	x	x	19.70
642	193	194	1	332	9400	4.5	7050	x	355		32.2	55	70	x	12.30
643	194	195	1	431	3300	3.5	4800	x	300		21.8	55	x	x	3.50
644	195	196	1	451	7800	2.5	2400	x	150		23.6	65	x	x	8.80
645	196	197	1	4.0	8400	1.5	1550	x	140		18.3	85	x	x	5.30
646	197	198	1	317	2.00%	4.0	6500	x	285		21.6	95	135	x	8.25
647	198	199.1	1.1	256	8100	3.5	5750	x	240		25.6	125	570	x	12.80
648	199.1	200.2	1.1	460	3200	1.0	370	5	140		15.86	70	121	x	0.85
649	200.2	201	0.8	225	1750	8.5	1.23%	x	630		22.4	110	2260	x	8.30
53650	201	202	1	220	1150	2.5	3050	10	225		13.76	95	x	x	4.05
651	202	203	1	497	8200	4.5	5850	25	370		14.96	65	x	0.01	3.25
652	203	204	1	157	1.60%	6.0	0.91%	x	375		33.4	80	11	x	17.80
653	204	205	1	296	6500	3.5	4450	x	200		22.3	105	x	x	8.50
654	205	206	1	528	2100	1.0	795	10	150		16.55	65	x	x	1.10
655	206	207	1	420	1.40%	1.5	905	15	130		17.54	90	x	x	3.10
656	207	208	1	454	1.20%	1.5	950	x	110		18.18	60	46	x	3.75
657	208	209		598	1.25%	1.0	115	5	110		17.00	45	x	x	0.77
658	209	210	1	347	2.25%	1.5	3550	x	145		30.8	85	x	x	14.60
659	210	211.1	1.1	309	6.05%	2.5	3150	x	185		33.8	75	x	x	20.20
53660	211.1	212	0.8	405	9600	1.0	475	x	110		12.02	115	41	x	1.25
661	212	213	1	542	5550	1.0	855	x	135		14.37	75	212	x	1.15
662	213	214	1	528	1.00%	1.0	465	x	135		13.83	60	5	0.01	0.81
663	214	215	1	385	4700	0.5	750	x	110		11.29	65	x	x	1.25
664	215	216	1	381	2100	0.5	890	x	95		9.67	15	88	x	3.40
665	216	217	1	332	1.40%	1.0	420	x	35		5.54	15	x	x	1.50
666	217	218	1	338	1400	1.0	135	5	30		4.55	10	x	x	0.55
667	218	219	1	974	4.90%	x	685	x	80		15.38	45	x	x	4.95
668	219	220	1	783	3.10%	x	620	x	60		12.62	30	x	x	4.15
669	220	221	1	551	3450	0.5	1600	x	75		9.76	25	12	x	3.05
53670	221	222	1	617	1.05%	x	200	x	45		7.12	20	x	x	1.55
671	222	223	1	515	2600	0.5	1450	x	80		18.17	25	x	x	7.80
672	223	224	1	655	1700	1.5	785	x	110		12.87	45	x	x	1.95
673	224	225	1	233	1.10%	x	730	5	70		9.46	40	x	x	3.15
674	225	226	1	407	2700	0.5	295	x	70		9.05	30	x	x	1.20
675	226	227	1	149	2700	1.5	3650	x	115		25.7	20	106	0.01	13.20
676	227	228	1	541	2300	0.5	1500	x	115		12.81	50	255	0.04	1.85
677	228	229	1	401	1400	x	365	x	80		12.34	40	x	x	1.56
678	229	230	1	611	1.50%	1.0	1135	x	125		14.47	55	444	x	1.65
679	230	231	1	267	4000	1.0	440	x	70		12.05	65	83	x	1.95
53680	231	232	1	350	4200	x	605	x	100		10.01	120	1050	x	1.05
681	232	233	1	393	1.60%	2.5	4500	x	240		17.07	195	1110	x	5.25

D. D. H. CHP 240 — ANALYTICAL RESULTS

Sample Type
S = ½ core split
F = Fillet.
G = Grind

Sample No.	Depth From	Depth To	Sample Interval	Sn	As	Ag	Cu	Pb	Zn	Mn	Fe %	Cr	W	Au	S%
F 3682	233	234	1	390	1800	x	1650	x	160	3350	7.65	95			
683	234	236	2	636	260	x	30	x	105	2200	7.35	75			
684	236	239	3	657	1200	x	180	10	100	3200	6.00	60			
685	239	240.2	1.2	475	220	x	75	x	155	3250	5.05	50			
686	240.2	243	2.8	21	330	x	270	x	80	495	6.10	55			
687	243	246.2	3.2	305	320	x	15	5	80	2800	4.25	70			
688	246.2	248	1.8	25	88	x	205	10	90	615	8.50	50			
689	248	250.8	2.8	57	130	x	850	10	105	590	11.0	50			
S 3690	250.8	251.8	1	63	390	3.5	6050	x	320		17.78	75	15	x	4.90
F 691	251.8	254	2.2	44	92	x	1350	10	120	620	9.45	60			
692	254	257	3	46	480	x	1950	10	115	620	12.0	55			
G 693	257	260	3	26	290	x	1550	50	175	600	11.5	50			
S 694	260	260.4	0.4	58	190	4.5	1.00%	x	225		20.0	400	26	x	11.50
F 695	260.4	263	2.6	6	71	x	65	10	85	510	8.75	35			
G 696	263	266	3	72	120	x	1050	20	155	600	11.5	40			
697	266	269	3	60	190	0.5	465	15	145	610	8.45	45			
693	269	272	3	39	93	x	215	15	115	565	6.35	40			
699	272	275	3	62	160	x	255	30	130	610	7.80	45			
F 3700	275	278	3	40	73	x	325	15	90	510	8.35	50			
701	278	281	3	30	100	x	1750	15	110	520	9.30	55			
702	281	284	3	41	50	x	1700	5	75	370	5.40	30			
703	284	287	3	40	78	x	555	10	85	540	9.05	5[illegible]			
704	287	290	3	34	100	x	160	10	80	510	7.90	65			
3705	290	291.5	1.5	69	190	x	30	10	80	560	8.90	75			
	End of Hole														

ELECTROLYTIC ZINC CO. OF A'ASIA LTD.
ROSEBERY – TASMANIA

DIAMOND DRILL CORE RECORD

01 HOLE No. (3-7) CHP 241 1 of 6

LOCATION	Colebrook Hill
OBJECTIVE	To test CHP 238 for extensions of tin mineralisation intersected in that hole.
RESULT	No significant mineralisation intersected

TOTAL DEPTH	28 m
HOLE SIZE	HQ-20;NQ-93;BQ-EOH
COMMENCED	8.6.83
COMPLETED	19.6.83
LOGGED BY	I.J. Mathison

03 A.M.G.

8-12 Footage	13-16 Direction	17-18-21 Dip.	8-12 Footage	13-16 Direction	17-18-21 Dip.
46m	088	60°	284m	102 AMG	54½
92m	087	60°			
158m	096	57½			
240m	099	56			

02

ORE DIP. (8-11)	
COLLAR DIP. (12-15)	60°
DIRECTION (16-19)	090 AMG
R.L. (20-23)	470.4
CO-ORDS	374,934.6E 5,371,001.5N
LOCATION	Colebrook Hill

FOOTAGE FROM	FOOTAGE TO	ROCK DESCRIPTION	MINERALISATION	04 SAMPLE No.	8-13 FROM	14-19 TO	CORE REC'D	ASSAY DATA Sample Length	20-25 Pb%	26-31 Zn%	32-37 Cu%	38-43 Ag - g/t	44-49 Au - g/t	50-55 Fe%
0	20m	Non core drilling												
20	41m	Oxidised brown and dark grey volcanic wacke and siltstone with occassional thin quartz veins. Core often rubbly Cba 30° Base of significant oxidisation												
41	51m	Interbedded grey calcareous volcanic wacke grading to dark grey marly siltstone. Graded bedding gives good uphole (west) facings. Irregular calcite ± chlorite veins, veinlets and tension gashes common Cba 25°	Limonite flecks and trace fg galena in calcite veins at 45.4											
51	64.3m	Grey medium grained calcareous lithic wacke grading uphole to dark grey marly siltstone. Core broken and oxidised in places. Cba 25°, irregular thin calcite veins and tension gashes.	Scattered rounded pyrite grains. Pyrite coating on fractures.											
64.3	82m	Grey med. grained calcareous lithic wacke grading to dark grey marly siltstone and laminated carbonaceous limestone. Thin irregular calcite veins common. Cba 25° T.S. 53370; 70.8m; 53371, 81.0m	Minor pyrite, pyrrhotite and limonite in small patches brecciated siltstone rehealed by calcite at 73, 74, 75 and 79m											
82	85m	Pale grey medium grained lithic wacke. Some irregular calcite veins	2% very fine grained pyrite on fractures and in veinlets parallel to bedding.											
85	91m	Pale grey lithic wacke grading to dark grey siltstone. Irregular thin calcite veins common	Minor pyrite & trace pyrrhotite as rounded grains and in some carbonate veins.											
91	94.7m	Dark grey calcareous lithic wacke with common irregular calcite vnlts & tension gashes	Trace pyrrhotite in some veinlets.											

CORE REC'D

RUN	SHORT
0	
20	NR
23	0.8
25.6	2.0
29	2.8
32	1.4
34.3	1.8
36.5	1.5
38	1.1
39.8	0.8
41	-
42	-
43.4	-
46.5	-
47.6	-
50	-
53	0.3
56	0.2
58.5	0.5
61.5	-
64.6	-
67.7	-
70.8	-
73.9	-
77	-
80	-
83	-
86	-
89	-
92	-
93	-
95	-
98	-
101	-
104	-
107	-
110	-

480037

ELECTROLYTIC ZINC CO OF A'ASIA LTD
ROSEBERY – TASMANIA

DIAMOND DRILL CORE RECORD

HOLE No. CHP 241

A 11241

FOOTAGE FROM	FOOTAGE TO	ROCK DESCRIPTION	MINERALISATION	SAMPLE No.	8-13 FROM	14-19 TO	CORE REC'D	ASSAY DATA Sample Length	20-25 Pb%	26-31 Zn%	32-37 Cu%	38-43 Ag - g/t	44-49 Au - g/t	50-55 Fe%		CORE REC'D RUN	CORE REC'D SHORT
94.7	98m	Dark grey siltstone and calcareous wacke with common thin calcite veins. Bedding planes disrupted by soft sediment deformation but grading indicates uphole facing Current bedding in some volcanic wacke beds.														113 116 119 122 125 128 131	- - - - - - -
98	99.4m	Basaltic? lapilli tuff surrounding brecciated siltstone. Basalt weakly carbonated	Very fine grained pyrrhotite disseminated throughout basaltic rocks.													134 137 140 143	- - - -
99.4	107.5m	Pale green grey to dark grey altered dolerite. Carbonate and ?prehnite along veins at top and disrupted siltstone inclusions in last metre 1-2cm calcite veins and veinlets common and dolerite weakly carbonated. T.S. 53372, 106.0m	Very fine grained pyrrhotite disseminated through section 99.4-102m													146 149 152 155 158 161 164 167	- - - - - - - -
107.5	108.8m	Brecciated grey marl rehealed by calcite- ?steam brecciation of soft sediments.														170 173 176	- - -
108.8	110.8m	Grey and dark grey coarse grained calcareous volcanic wacke, grading uphole to marl. Irregular calcite veins and veinlets common.	Sparse disseminated pyrite.													179 181.4 184.7 187.8 190.9	- - 0.2 - -
110.8	115.5m	Dark grey marl with occassional thin coarse beds and inclusions. Numerous irregular cross cutting calcite veins and veinlets.	Traces of disseminated pyrite and pyrrhotite. At 115m magnetite occurs along the margins of thin slickinsided fractures and of calcite veins filling these fractures.													194 197 200 203 206 209 212 215	- - - - - - - -
115.5	126.5m	Current bedded medium grained grey, grey wacke with interbedded dark grey marly siltstone. Graded bedding give good uphole facings. Cycles 5mm to 5cm thick. Cba 25° Occassional calcite veins.	Traces of disseminated pyrite													218 221 224 227 230 233 236 239 242	0.1 - - - - - - - -

ELECTROLYTIC ZINC CO OF A'ASIA LTD
ROSEBERY – TASMANIA

DIAMOND DRILL CORE RECORD

HOLE No. CHP 241 3 of 5

A 11241

FOOTAGE FROM	FOOTAGE TO	ROCK DESCRIPTION	MINERALISATION	SAMPLE No.	8-13 FROM	14-19 TO	CORE REC'D	Sample Length	20-25 Pb%	26-31 Zn%	32-37 Cu%	38-43 Ag - g/t	44-49 Au - g/t	50-55 Fe%	
126.5	128m	Dark grey marl and grey greywacke with numerous irregular calcite veins and veinlets.	1-5% pyrrhotite with minor chalcopyrite in 1-2cm wide quartz carbonate veins, carbonate veinlets and tension gashes.												
128	130.7m	Dark grey siltstone and grey greywacke. Minor green alteration.	1cm quartz+carbonate+pyrrhotite vein at 130m												
130.7	132.5m	Grey and green grey fine grained greywacke with rare thin shale beds. Cba 30° Minor green alteration.	Thin conformable pyrrhotite bands at 131.9m												
132.5	137m	Dark grey disrupted siltstone with numerous irregular calcite veins, veinlets and tension gashes. Some chlorite veinlets.													
137	141.2m	Green and grey fine grained calcareous volcanic wacke. Irregular carbonate veins and veinlets common. Thin breccia developed at 141.2m T.S. 53374, 138.6m	Minor pyrite in brecciated altered zone 137m												
141.2	149m	Dark grey and green grey disrupted siltstone and fine grained greywacke. Irregular thin carbonate veins and veinlets common.													
149	162m	Green grey medium grained volcanic wacke grading uphole to siltstone. Cba 25°													
162	167m	Green grey and grey fine grained greywacke and siltstone showing soft sediment deformation. Quartz carbonate veining 163.5–164.2	Trace disseminated and veinlet pyrrhotite increasing towards end.												
167	173.5m	Grey fine grained volcanic wacke and dark grey siltstone. Irregular carbonate+ pyrrhotite veinlets common.	10% pyrrhotite as disseminated blebs thin conformable bands and irregular veinlets.												
173.5	177.4m	Dark grey medium grained sheared altered dolerite with common 1–4cm quartz carbonate veins 60–70° to core axis. T.S. 53377, 175.5m	Traces disseminated pyrrhotite												

CORE REC'D

RUN	SHORT
245	–
248	–
251	–
254	–
257	–
260	–
263	–
266	0
269	0
272	–
275	–
278	–
281	–
284	–
EOH	

48603

ELECTROLYTIC ZINC CO OF A'ASIA LTD
ROSEBERY – TASMANIA

DIAMOND DRILL CORE RECORD

HOLE No. CHP 241

A 11241

FOOTAGE FROM	FOOTAGE TO	ROCK DESCRIPTION	MINERALISATION	SAMPLE No.	8-13 FROM	14-19 TO	CORE REC'D	ASSAY DATA Sample Length	20-25 Pb%	26-31 Zn%	32-37 Cu%	38-43 Ag-g/t	44-49 Au-g/t	50-55 Fe%		CORE REC'D RUN	CORE REC'D SHORT
177.4	190.5m	Pale grey fine grained tuffaceous wacke grading to dark grey siltstone. Soft Sediment brecciation and deformation common. T.S. 53375, 189.0m	10% pyrrhotite disseminated and in veinlets with carbonate.														
190.5	200m	Pale grey fine to medium grained quartz lithic wacke with numerous rip up siltstone clasts. Considerable soft sediment deformation	Trace disseminated pyrrhotite														
200	206m	Dark grey & grey medium grained calcareous volcanic wacke grading to grey siltstone	Trace disseminated pyrrhotite														
206	207.3m	Carbonated dark grey volcanic wacke															
207.3	210.5m	Pale grey fine grained limestone. Original sedimentary structures disrupted by ?soft sediment deformation.	5-10% pyrrhotite in veinlets														
210.5	215.1m	Pale grey fine-medium grained calcareous wacke interbedded with thin fine grained limestone beds and airfall tuffs. Gradings give uphole facings. Cba 30°	Minor disseminated & veinlet pyrrhotite especially in more calcareous units.														
215.1	221m	Grey coarse to medium grained quartz lithic arenite. Some calcite cement and occassional veins rounded siltstone, marl and finewacke fragments 1-10cm in last 2m															
221	222m	Dark grey sheared siltstone around 20cm quartz+carbonate+pyrrhotite in shear zone at 40° to core axis	40% pyrrhotite and minor chalcopyrite in vein														
222	226m	Grey and dark grey cherty siltstone-?fine ashfall tuff. Small patches breccia re-healed by quartz and carbonate. Minor carbonate-epidote veining. Cba 50°															
226	229m	Dark green grey fine-medium grained dolerite 20cm quartz vein at 226.8m.															

48039

DIAMOND DRILL CORE RECORD

HOLE No. CHP 241 5 of 6

A 11241

FOOTAGE FROM	FOOTAGE TO	ROCK DESCRIPTION	MINERALISATION	SAMPLE No.	8-13 FROM	14-19 TO	CORE REC'D	ASSAY DATA Sample Length	20-25 Pb%	26-31 Zn%	32-37 Cu%	38-43 Ag - g/t	44-49 Au - g/t	50-55 Fe%		CORE REC'D RUN	SHORT
229	238m	Green, brown and brown grey fine grained quartz lithic wacke grading to siltstone Bedding disrupted. Thin quartz+carbonate chlorite veins around 233m associated with green alteration.															
238	243m	Tectonic breccia of green grey siltstone rehealed by carbonate patches and veins and chlorite veinlets.															
243	246m	Interbedded green grey medium grained lithic wacke and siltstone with grading giving uphole facing. Chlorite-calcite veinlets increasing.															
246	249m	Black-dark grey siltstone and mudstone with occassional thin calcite veins.	10% pyrrhotite in blebs, veinlets and disseminated.														
249	257m	Grey medium grained lithic wacke and soft sediment brecciated marly siltstone. Thin carbonate veins more common in marly siltstone.															
257	260.5m	Grey lithic wacke grading to dark grey siltstone. Soft sediment deformation common. Cba 40°															
260.5	265.5	Pale grey siltstone with minor soft sediment deformation	1-5% pyrrhotite in veinlets, blebs and disseminated.														
265.5	269m	Green grey and grey slump brecciated siltstone and marly siltstone. Carbonate and chlorite+carbonate veinlets common.	Trace pyrrhotite in chlorite carbonate veinlets														
269	274.5m	Grey and dark grey slump brecciated siltstone. Occassional calcite and chlorite veinlets.															
274.5	276.5m	Grey and dark grey siltstones and marly siltstones some soft sediment deformation Cba 30°															

ELECTROLYTIC ZINC CO OF A'ASIA LTD
ROSEBERY – TASMANIA

DIAMOND DRILL CORE RECORD

HOLE No. CHP 241 6 of 6

A 11241

FOOTAGE FROM	FOOTAGE TO	ROCK DESCRIPTION	MINERALISATION	SAMPLE No.	8-13 FROM	14-19 TO	CORE REC'D	ASSAY DATA Sample Length	20-25 Pb%	26-31 Zn%	32-37 Cu%	38-43 Ag · g/t	44-49 Au · g/t	50-55 Fe%		CORE REC'D RUN	SHORT
276.5m	280.7m	Dark grey mudstone and minor siltstone Cbe 40															
280.7	284m EOH	Pale grey fine to medium grained quartz lithic wacke with disrupted interbedded siltstone. Scattered irregulat calcite veins and veinlets.	5% disseminated and veinlet pyrrhotite.														

Thin Section Samples

53370	70.8m
53371	81.0m
53372	106.0m
53374	138.6m
53375	189.0m
53377	175.5m

Refer to C.M.S. Report No. 83/9/35

4860A

Sample Type
S = ½ core split
F = Fillet.
G = grind

D.D.H. CHP 241 -

ANALYTICAL RESULTS

486042

Sample No.	Depth From	Depth To	Sample Interval	Sn	As	Ag	Cu	Pb	Zn	Mn	Fe %	Cr
F 53706	20	23	3	3	39	X	145	285	400	660	11.9	185
707	23	25.6	2.6	307	220	X	275	X	215	1550	18.0	160
708	25.6	29	3.4	178	170	X	225	5	180	1300	14.5	110
709	29	32	3	X	81	0.5	135	65	285	840	11.5	85
53710	32	36.5	4.5	X	41	X	135	X	150	740	11.5	80
711	36.5	39.8	3.3	5	100	X	145	25	165	1000	12.0	85
712	39.8	42	2.2	X	13	X	115	20	150	955	9.70	75
713	42	46.5	4.5	X	6	X	95	30	155	1050	7.20	75
714	46.5	50	3.5	X	6	X	80	10	95	1050	5.40	65
715	50	53	3	X	16	X	105	5	120	1050	7.90	90
716	53	56	3	4	16	X	100	10	130	1300	9.05	70
717	56	58.5	2.5	X	12	X	105	5	125	1250	8.5	70
718	58.5	61.5	3	X	6	X	85	10	120	1300	8.65	55
719	61.5	64.6	3.1	X	2	X	85	10	130	1100	8.10	70
53720	64.6	67.7	3.1	X	5	X	95	10	130	1050	7.80	75
721	67.7	70.8	3.1	X	5	0.5	85	15	135	1100	7.05	80
722	70.8	73.9	3.1	X	3	X	75	80	715	915	5.65	85
723	73.9	77.0	3.1	X	2	X	55	100	630	875	3.60	65
724	77	80	3	X	5	X	60	35	325	635	3.15	65
725	80	83	3	X	8	X	65	15	155	865	4.55	65
726	83	86	3	X	7	X	95	45	175	1100	8.55	80
727	86	89	3	X	5	X	85	40	145	1000	6.95	70
728	89	92	3	3	15	X	90	15	110	1800	7.90	105
729	92	93	1	X	10	X	100	15	120	1500	7.80	110
53730	93	95	2	X	7	X	105	10	155	1300	8.70	120
731	95	98	3	X	3	X	95	25	175	1050	6.75	115
732	98	101	3	4	4	X	85	10	135	1350	8.00	55
733	101	104	3	X	4	X	85	15	150	1250	9.25	65
734	104	107	3	X	4	X	105	20	170	1350	9.05	50
735	107	110	3	5	7	X	50	75	845	1150	5.25	65
736	110	113	3	X	2	X	20	15	55	525	1.60	40
737	113	116	3	21	9	X	35	80	210	2700	3.40	45
738	116	119	3	5	4	X	85	15	125	880	6.40	80
739	119	122	3	X	7	X	100	5	145	1060	8.35	105
53740	122	125	3	X	9	X	105	15	125	1100	7.95	100
741	125	126.5	1.5	10	27	X	105	5	120	1450	9.95	110
742	126.5	127.2	0.7	84	15	X	560	5	165	2400	17.0	110
743	127.2	128	0.8	12	47	X	150	10	120	1700	12.0	85
F 744	128	131	3	15	110	X	135	5	105	1550	8.45	60
745	131	134	3	X	15	X	130	5	115	930	7.65	55
746	134	137	3	X	5	X	85	20	110	930	5.60	65

D.D.H. CHP 241

ANALYTICAL RESULTS

486043

Sample Type
S = ½ core split
F = Fillet
G = grind

Sample No.	Depth From	Depth To	Sample Interval	Sn	As	Ag	Cu	Pb	Zn	Mn	Fe%	Cr
53747	137	140	3	X	6	X	235	10	165	930	9.65	6
748	140	143	3	X	3	X	95	10	155	1250	9.10	3
749	143	146	3	4	4	X	125	10	165	980	9.65	4
53750	146	149	3	X	2	X	80	10	180	980	12.0	2
751	149	152	3	X	3	X	95	15	185	930	12.0	3
752	152	155	3	X	2	X	110	5	155	780	9.05	2
753	155	158	3	X	2	X	110	15	180	906	12.0	2
754	158	161	3	5	3	X	110	10	175	900	11.5	3
755	161	164	3	9	15	X	155	15	165	1100	11.0	15
756	164	167	3	X	29	X	100	10	120	1500	6.05	65
757	167	168	1	X	8	X	105	15	150	1050	7.85	65
758	168	169	1	X	10	X	155	20	115	860	5.50	100
759	169	170	1	X	11	X	150	175	330	1050	5.40	115
53760	170	171	1	X	5	0.5	110	95	240	1100	5.25	120
761	171	172	1	X	25	X	105	45	165	1300	4.65	110
762	172	173.5	1.5	84	30	X	195	25	120	3100	6.60	50
763	173.5	176	2.5	13	34	X	120	20	185	2400	9.85	65
764	176	177.4	1.4	19	90	X	175	10	195	2050	12.0	70
765	177.4	178	2.6	3	8	X	90	15	100	1900	4.75	50
766	178	179	1	X	1	X	125	15	740	1500	6.85	70
767	179	180	1	X	4	X	95	15	265	1200	8.90	70
768	180	181	1	X	2	X	115	75	225	1450	5.75	60
769	181	182	1	X	1	X	170	35	380	1000	6.35	90
53770	182	183	1	X	1	0.5	120	25	360	1200	6.15	75
771	183	184	1	X	2	X	125	35	295	1300	6.70	120
772	184	185	1	X	12	0.5	120	30	150	1600	5.95	210
773	185	186	1	X	11	X	135	35	175	1500	6.95	130
774	186	187	1	X	14	X	145	20	205	1500	8.40	105
775	187	188	1	X	5	X	150	25	165	1700	7.05	95
776	188	189	1	X	2	X	190	15	125	1000	8.30	160
777	189	190.5	1.5	X	4	X	135	20	160	1250	8.65	155
778	190.5	194	3.5	X	5	X	80	10	150	1500	8.85	215
779	194	197	3	X	1	X	115	10	135	1050	8.55	135
53780	197	200	3	X	4	X	90	10	140	1200	9.30	245
781	200	203	3	X	12	X	100	5	140	1400	9.20	350
782	203	206	3	13	25	X	95	10	135	1700	9.45	330
783	206	207	1	X	2	X	140	5	120	1150	8.35	85
784	207	208	1	X	1	X	125	5	85	990	6.00	60
785	208	209	1	X	1	X	65	10	85	870	4.60	40
786	209	210	1	23	13	X	60	10	70	815	4.05	35
787	210	211	1	34	100	X	90	5	110	1800	7.50	135

D.D.H. CHP 241 ANALYTICAL RESULTS

486044

Sample Type
S = ½ core split
F = Fillet.
G = grind

	Sample No.	Depth From	Depth To	Sample Interval	Sn	As	Ag	Cu	Pb	Zn	Mn	Fe %	Cr
S	53788	211	212	1	x	11	x	95	10	145	1200	8.75	170
F	789	212	215	3	x	3	x	110	25	140	1200	7.90	265
	53790	215	218	3	x	6	x	85	10	130	1150	8.40	285
	791	218	221	3	x	11	x	80	5	125	1250	7.65	280
S	792	221	222	1	520	580	x	570	5	120	3850	12.5	245
F	793	222	224	2	3	20	x	45	30	195	1150	7.85	65
	794	224	227	3	3	13	x	160	15	180	1350	11.5	50
	795	227	230	3	x	3	x	245	10	205	1500	13.0	45
	796	230	233	3	x	5	x	100	5	175	1100	11.5	75
	797	233	236	3	x	6	x	95	5	165	1050	10.5	80
	798	236	239	3	x	10	x	135	10	155	955	8.35	110
	799	239	242	3	x	10	x	125	10	145	1000	7.50	125
	53800	242	245	3	x	14	x	120	5	145	1050	9.20	130
	801	245	246	1	7	7	x	125	10	135	1200	12.0	115
	802	246	249	3	4	27	x	140	90	265	985	7.15	130
	803	249	251	2	x	14	x	95	10	170	1050	8.45	80
	804	251	254	3	x	12	x	95	15	160	1150	7.75	75
	805	254	257	3	x	8	x	115	20	285	1000	8.85	95
	806	257	260	3	x	11	x	95	125	335	1250	6.90	75
	807	260	263	3	x	5	x	105	20	185	1350	9.35	65
	808	263	266	3	x	3	x	115	45	195	1400	9.90	65
	809	266	269	3	x	5	x	105	20	185	1300	8.05	50
	53810	269	272	3	x	4	x	120	5	180	1250	9.15	55
	811	727	275	3	x	7	x	90	5	160	1400	9.30	50
	812	275	278	3	x	7	x	115	5	140	2100	7.45	50
	813	278	281	3	x	5	x	105	10	135	1650	7.00	55
	814	281	284	3	x	11	x	120	155	470	1500	8.70	145
		END OF	HOLE										

486045

ELECTROLYTIC ZINC CO. OF A'ASIA LTD.
ROSEBERY – TASMANIA

DIAMOND DRILL CORE RECORD

01 HOLE No. (3-7) CHP 243 1 of 4

LOCATION Colebrook Hill

OBJECTIVE To test down dip extension of tin mineralisation exposed in the Olympic-Athenic workings

RESULT Low grade tin mineralisation intersected

TOTAL DEPTH 227m
HOLE SIZE HQ-30;NQ-117;BQ-EOH
COMMENCED 21.6.83
COMPLETED 5.7.83
LOGGED BY I.J. Mathiesen

03

8-12 Footage	13-16 Direction	17-18-21 Dip.	8-12 Footage	13-16 Direction	17-18-21 Dip.
38	248AMG	65°			
86	248	64½°			
160	254	64½°			
225	261	63½°			

02
ORE DIP. (8-11)
COLLAR DIP. (12-15) 65°
DIRECTION (16-19) 257° AMG
R.L. (20-23) 466.0
CO-ORDS. 374,816.8E;5,370,851.5N
LOCATION Colebrook Hill

04

FOOTAGE FROM	FOOTAGE TO	ROCK DESCRIPTION	MINERALISATION	SAMPLE No.	8-13 FROM	14-19 TO	CORE REC'D	ASSAY DATA Sample Length	20-25 Pb%	26-31 Zn%	32-37 Cu%	38-43 Ag - g/t	44-49 Au - g/t	50-55 Fe%	
0	30m	Non core drilling													
30	59m	Pale green fine grained volcanic wacke and siltstone, oxidised brown and purple brown in places and core often rubbly and occassionally clayey. Grading indicates downhole (west) facing. Cba 20°	Occassional thin quartz and quartz limonite veins and limonite coating on fractures												
59	68.6m	Grey and dark grey partially oxidised fine-medium grained volcanic wacke and siltstone. Joints with limonite coating subparallel to core and core often rubbly. Grading gives good down hole facing.	Limonite coating on fractures												
		Base of significant oxidisation													
68.6	73.4m	Grey and dark grey volcanic wacke and siltstone with numerous oxidised cross cutting chlorite veinlets.													
73.4	82m	Dark grey siltstone and minor fine grained grey wacke	Thin conformable pyrite bands at 79 & 81m. Minor pyrite in veinlets.												
82	87.1m	Grey brecciated volcanic wacke and siltstone with cross cutting chlorite veinlets.													
87.1	93.4	Green grey and dark grey fine to medium grained wacke with some siltstone brecciated into wacke. Irregular carbonate and quartz carbonate veins.													
93.4	94.5m	40cm cream dolomite vein through grey wacke with irregular dolomite filled tensions gashes.	Very minor chalcopyrite in dolomite vein												
94.5	96m	Dark grey siltstone with irregular carbonate and quartz carbonate veins and tension gashes													

CORE REC'D

RUN	SHORT
0	
30	NR
30.7	0.4
31.2	0.1
32	–
33.2	–
35	0.3
36.9	1.0
38	0.3
39.7	–
41	(+0.7)
42.5	–
44	–
45	–
47	–
48.3	0.1
50	–
52.3	0.1
54.5	0.1
56	–
57.4	–
58.4	–
59	–
59.7	–
60.3	–
61.4	–
62	–
62.6	–
63.2	–
64.4	0.6
66.4	0.4
68	0.1
68.6	–
70.4	–
71.8	–
74.7	–
75.5	–
77	–

486046

ELECTROLYTIC ZINC CO OF A'ASIA LTD
ROSEBERY – TASMANIA

DIAMOND DRILL CORE RECORD

HOLE No. CHP 243

A 11241

FOOTAGE FROM	FOOTAGE TO	ROCK DESCRIPTION	MINERALISATION	SAMPLE No.	8-13 FROM	14-19 TO	CORE REC'D	ASSAY DATA: Sample Length	20-25 Pb%	26-31 Zn%	32-37 Cu%	38-43 Ag - g/t	44-49 Au - g/t	50-55 Fe%	
96	104m	Green grey wacke with fragments of cherty siltstone. Some bedding subparallel to core but this is a zone of deformation. Irregular quartz carbonate veins.	98.5m 20cm vughy quartz+pyrite 100.2m thin carbonate vein with pyrite & pyrrhotite												
104	109.4m	Dark grey tectonic breccia of predominantly siltstone with veins and bands of carbonate and sulphides. Core badly broken, slightly oxidised and partially leached.	Pyrite and minor arsenopyrite occur in veins and veinlets throughout the breccia zone. Average <5% sulphides. Main vein 106-106.9 at 30° to core.										87.1 89	0.4 -	
109.4	117m	Green grey medium grained volcanic wacke and siltstone slumped and soft sediment brecciated. Irregular carbonate veins, veinlets and tension gashes.	113.9m 3cm quartz+?shorl												
117m	122m	Pale green grey siltstone and feldspar lithic wacke. Bedding disrupted.	Irregular black schorl veinlets												
122	124.5m	Soft sediment breccia of volcanic wacke and siltstone fragments cut by numerous quartz carbonate veinlets	Minor pyrrhotite and traces schorl in replacements at 124.3m												
124.5	126.5m	Green grey medium grained volcanic wacke with quartz carbonate veinlets													
126.5	133.4m	Soft sediment breccia with quartz filling open spaces in later tectonic brecciation Minor leaching.	5cm quartz + schorl vein at 128.5m.												
133.4	139.8m	Green grey volcanic wacke and siltstone Wacke contains some 5mm siltstone clasts	137.4 – 7cm quartz+carbonate+pyrite+pyrrhotite 1-3cm quartz+chalcopyrite+pyrrhotite veins at 135.9, 136, 136.6, 137, 138.5 139.8 – 2cm quartz+chalcopyrite +pyrite												
139.8	145.4	Irregularly sheared and brecciated volcanic wacke and siltstone with quartz and sulphides in open space fillings & veins. Weak green ?actinolite alteration. Youngest set quartz veins 30° to core axis.	5-10% pyrite+chalcopyrite in quartz veins and open space fillings												

CORE REC'D RUN	CORE REC'D SHORT
78.9	0.4
80	0.1
82.6	-
84.2	0.4
85.1	0.9
86	-
91.6	-
92.4	(+1.0)
94.4	0.4
97.5	-
100.7	-
101.8	-
103.3	-
104.0	-
105.9	-
106.7	-
107.7	-
108.3	-
109.4	-
109.7	-
110.9	-
112.6	-
115.7	-
117.2	-
117.7	0.2
119	-
122	-
125	-
128	-
131	-
133.4	-
136.5	-
142.6	-
143.6	-
145.8	0.1
149	-
152	-
153.6	-
155	-
158	-
161	-
164	-
167	-
170	-

486047

ELECTROLYTIC ZINC CO OF A'ASIA LTD
ROSEBERY – TASMANIA

DIAMOND DRILL CORE RECORD

HOLE No. CHP 243 3 of 4

A 11241

FOOTAGE FROM	FOOTAGE TO	ROCK DESCRIPTION	MINERALISATION	SAMPLE No.	8-13 FROM	14-19 TO	CORE REC'D	Sample Length	20-25 Pb%	26-31 Zn%	32-37 Cu%	38-43 Ag - g/t	44-49 Au - g/t	50-55 Fe%	
145.4	154m	Dark grey and green grey siltstone and volcanic wacke with mild actinolite alteration. Primary sedimentary features disrupted and sheared.	Several thin quartz+pyrite+ chalcopyrite veins at 45° to core axis												
154	170.9m	Green grey volcanic wacke and minor siltstones disrupted by soft sediment deformation. Later tectonic breaks are rehealed by quartz+carbonate+sulphide veins. Mild actinolite alteration – especially around veins.	5% sulphides throughout with concentrations at: 154.3–154.9 pyrrhotite+pyrite in carbonate 157–158 pyrrhotite+magnetite in carbonate 160–160.4 pyrite+pyrrhotite in carbonate 154.9+169.8 minor arsenopyrite +pyrite and chalcopyrite												
170.9	181.5	Purple grey siltstone and green grey wacke disrupted by primary sedimentary features Later tectonic breccia rehealed by carbonate veins and veinlets.	50cm dolomite rehealing breccia at 173.3 with minor pyrite and blades of magnetite.												
181.5	196m	Green grey volcanic wacke and purple grey siltstone with common thin carbonate veins.	182.2 – 2cm quartz+dolomite+ pyrite 185.7–186.4 brecciated siltstone rehealed by carbonate with minor magnetite.												
196	199.5m	Green grey thin bedded dolomitic marl and marly siltstone. Micro brecciation rehealed by chlorite veinlets and later ?tectonic breccia rehealed by dolomite. Cba 50° but often disrupted. Many dolomite veins 70° to core.													
199.5	204.5m	Slump brecciated dark grey and green grey siltstone – weak chloritic alteration	204.0 20cm quartz+chalcopyrite+ pyrrhotite replacing siltstone												
204.5	209m	Green grey medium grained lithic wacke and marly siltstone. Numerous dolomite veins and tension gashes.													
209	211m	Slump brecciated dark grey siltstone and fine grained volcanic wacke – chlorite veinlets													

CORE REC'D RUN	SHORT
173	–
176	–
179	–
182	–
185	–
188	–
191	–
194	–
197	–
200	–
203	–
206	–
209	–
212	–
215	–
218	–
221	–
224	–
227	–
EOH	–

486048

ELECTROLYTIC ZINC CO OF A'ASIA LTD
ROSEBERY – TASMANIA

DIAMOND DRILL CORE RECORD

HOLE No. CHP 243 4 of 4

A 11241

FOOTAGE FROM	FOOTAGE TO	ROCK DESCRIPTION	MINERALISATION	SAMPLE No.	8-13 FROM	14-19 TO	CORE REC'D	ASSAY DATA Sample Length	20-25 Pb%	26-31 Zn%	32-37 Cu%	38-43 Ag - g/t	44-49 Au - g/t	50-55 Fe%		CORE REC'D RUN	SHORT
211	215.3m	Slump brecciated siltstone and volcanic wacke. Fault gouge at 211.3 at 30° to core	Several thin pyrite+chalcopyrite ± pyrrhotite veins 30° to core														
215.3	221m	Slump brecciated dark green grey siltstone and volcanic wacke-chlorite veinlets and weak chloritic alteration.	217.1 – 1cm quartz+pyrite+ chalcopyrite 219.8 – 5mm chalcopyrite+pyrite 220.8 – 3cm quartz+pyrite+ chalcopyrite														
221	227m EOH	Dark green grey siltstone and fine grained volcanic wacke disrupted by soft dediment deformation. Numerous chlorite veinlets.															

Thin Section Sample
53376 218.0m
Refer to C.M.S. Report 83/9/35

D.D.H. CHP 243 ANALYTICAL RESULTS

486049

Sample Type
S = ½ core split
F = Fillet.

P-1

Sample No.	Depth From	Depth To	Sample Interval	Sn	As	Ag	Cu	Pb	Zn	Mn	Fe%	Cr
53815F	30.0	33.0	3.0	3	9	1.0	2150	5	165	1050	10.50	65
16F	33.0	37.0	4.0	X	2	0.5	2850	5	220	1000	10.00	50
17F	37.0	41.0	4.0	3	2	X	490	5	190	635	8.70	70
18F	41.0	44.0	3.0	52	3	X	80	10	120	1400	4.60	15
19F	44.0	47.0	3.0	5	1	X	75	X	115	560	4.25	10
53820F	47.0	50.0	3.0	61	1	X	95	X	105	300	4.85	20
21F	50.0	53.0	3.0	71	1	X	185	X	135	505	5.60	15
22F	53.0	56.0	3.0	5	X	0.5	475	5	195	690	9.80	50
23F	56.0	59.0	3.0	3	6	1.0	470	X	170	950	9.60	60
24F	59.0	62.0	3.0	9	19	X	280	10	160	1150	11.00	100
25F	62.0	65.0	3.0	5	6	0.5	105	X	155	890	9.10	75
26F	65.0	68.0	3.0	5	22	0.5	140	10	195	3400	9.50	215
27F	68.0	71.0	3.0	3	24	1.0	145	30	195	1500	7.15	115
28F	71.0	74.0	3.0	4	36	3.0	135	45	380	3300	7.10	105
29F	74.0	77.0	3.0	17	40	2.0	175	180	430	6150	7.00	50
53830F	77.0	80.0	3.0	14	64	1.0	145	95	340	4950	2.75	20
31F	80.0	83.0	3.0	4	62	1.0	140	40	130	8600	6.95	30
32F	83.0	86.0	3.0	26	61	1.0	205	10	190	3900	7.90	65
33F	86.0	89.0	3.0	12	16	0.5	110	X	135	1750	8.90	70
34F	89.0	92.0	3.0	9	3	X	30	X	115	1850	6.60	85
35F	92.0	94.0	2.0	X	3	X	205	5	125	2100	7.90	95
36F	94.0	95.0	1.0	4	X	X	80	10	115	1200	7.25	80
37F	95.0	98.0	3.0	3	2	X	160	X	115	1250	8.30	75
38F	98.0	101.0	3.0	X	4	0.5	100	X	115	1450	7.45	60
39F	101.0	104.0	3.0	3	23	X	110	X	105	1600	5.90	35
53840S	104.0	105.0	1.0	924	190	X	270	15	60	1500	5.40	50
41S	105.0	106.0	1.0	38	11	X	235	10	55	890	4.65	60
42S	106.0	107.0	1.0	1440	2600	X	4300	5	105	1.35%	13.00	135
43S	107.0	108.0	1.0	818	200	X	1500	10	115	7350	12.50	100
44S	108.0	109.0	1.0	295	53	X	225	5	130	6000	12.50	70
45S	109.0	110.0	1.0	25	18	X	80	5	110	1300	8.25	65
46F	110.0	113.0	3.0	X	10	X	40	X	115	1500	7.70	70
47F	113.0	117.0	4.0	X	3	X	40	X	130	1400	7.30	55
48F	117.0	119.0	2.0	X	X	X	70	5	165	1900	7.65	110
49F	119.0	122.0	3.0	X	X	X	65	10	170	805	7.00	80
53850F	122.0	125.0	3.0	X	X	X	85	5	185	1200	7.35	85
51F	125.0	128.0	3.0	3	X	X	80	X	175	895	7.15	70
52F	128.0	131.0	3.0	4	2	X	95	5	170	1300	7.70	75
53F	131.0	135.0	4.0	12	8	X	80	X	155	1050	11.00	115
54S	135.0	136.0	1.0	15	37	X	90	X	130	930	12.00	160
53855S	136.0	137.0	1.0	19	1000	X	870	X	135	910	12.50	150

D.D.H. CHP 243 — ANALYTICAL RESULTS

486050

Sample Type
S = ½ core split
F = Fillet.

P-2

Sample No.	Depth From	Depth To	Sample Interval	Sn	As	Ag	Cu	Pb	Zn	Mn	Fe%	Cr
53856S	137.0	138.0	1.0	69	19	X	605	5	120	1450	14.90	140
57S	138.0	139.5	1.5	72	56	X	260	5	105	1050	13.00	125
58S	139.5	140.5	1.0	39	20	X	3400	5	120	1200	9.90	200
59S	140.5	142.0	1.5	59	11	X	15	X	90	1450	11.50	115
53860S	142.0	143.0	1.0	163	13	X	140	X	100	1350	13.50	145
61S	143.0	144.0	1.0	1280	450	X	290	X	125	2100	12.00	110
62S	144.0	145.4	1.4	97	13	X	800	5	80	1200	10.50	115
63F	145.4	149.0	3.6	152	18	X	410	X	115	1100	12.50	110
64F	149.0	152.0	3.0	63	9	X	5	X	115	950	14.00	65
65F	152.0	154.0	2.0	346	82	0.5	915	X	120	1300	12.00	75
66S	154.0	155.0	1.0	3030	5000	X	3550	X	95	4450	12.00	115
67S	155.0	156.0	1.0	130	41	X	25	X	80	1200	11.00	115
68S	156.0	157.0	1.0	940	55	X	475	X	90	3100	12.50	90
69S	157.0	158.0	1.0	979	20	X	170	5	80	6200	14.50	125
53870S	158.0	159.0	1.0	64	210	X	360	5	115	1100	13.50	130
71S	159.0	160.0	1.0	33	20	X	35	X	100	870	13.00	150
72S	160.0	161.0	1.0	365	280	X	755	X	95	1300	12.00	130
73S	161.0	162.0	1.0	309	31	X	205	X	90	1550	12.00	185
74S	162.0	163.0	1.0	171	68	X	300	5	105	1400	13.50	155
75S	163.0	164.0	1.0	121	4000	X	890	5	125	890	11.50	140
76S	164.0	165.0	1.0	557	60	X	220	5	115	940	12.50	95
77S	165.0	166.0	1.0	73	74	X	235	X	115	895	11.50	110
78S	166.0	167.0	1.0	129	316	X	380	X	105	910	11.50	125
79S	167.0	168.0	1.0	98	880	X	170	X	100	725	9.90	110
53880S	168.0	169.0	1.0	486	180	X	155	5	125	920	12.00	125
81S	169.0	170.0	1.0	1200	3500	X	1400	X	180	890	11.50	90
82S	170.0	171.0	1.0	438	35	X	385	X	105	845	11.50	65
83F	171.0	173.0	2.0	941	3	X	415	X	115	1200	11.00	75
84F	173.0	176.0	3.0	7	7	X	10	X	85	1850	6.65	40
85F	176.0	179.0	3.0	5	X	X	10	X	110	1050	6.65	90
86F	179.0	182.0	3.0	7	X	X	50	X	155	895	6.90	85
87F	182.0	185.0	3.0	28	X	X	150	5	150	1050	7.30	90
88F	185.0	188.0	3.0	4	X	X	55	X	90	2000	7.10	60
89F	188.0	191.0	3.0	7	X	X	30	X	105	1200	6.70	80
53890F	191.0	194.0	3.0	X	1	X	90	X	110	2200	6.80	75
91F	194.0	197.0	3.0	8	11	X	65	X	90	1450	6.50	30
92F	197.0	200.0	3.0	32	21	X	75	5	90	1800	6.20	25
93F	200.0	203.0	3.0	15	20	X	40	X	90	1200	7.45	25
94F	203.0	206.0	3.0	29	71	0.5	775	X	115	850	10.50	55
95F	206.0	209.0	3.0	34	23	X	160	X	95	1200	8.30	35
53896F	209.0	212.0	3.0	129	78	X	160	10	85	660	9.65	40

D.D.H. CHP 243 ANALYTICAL RESULTS 486051

Sample Type
S = ½ core split
F = Fillet.

P-3.

Sample No.	Depth From	Depth To	Sample Interval	Sn	As	Ag	Cu	Pb	Zn	Mn	Fe%	Cr
53897F	212.0	215.0	3.0	61	82	1.0	1950	x	120	760	13.50	70
98F	215.0	218.0	3.0	1110	23	1.0	1850	x	120	805	13.50	80
53899F	218.0	221.0	3.0	17	11	1.0	840	x	110	795	11.50	75
53900F	221.0	224.0	3.0	34	95	1.5	1700	5	130	965	13.00	60
53970F	224.0	227.0	3.0	20	12	0.5	10	x	105	770	11.50	55

486052.

ELECTROLYTIC ZINC CO. OF A'ASIA LTD.
ROSEBERY – TASMANIA

DIAMOND DRILL CORE RECORD

01 HOLE No. (3-7) DDH RRP 239

LOCATION: E.L. 1/62 Mt. BLACK - Ring River Grid.

OBJECTIVE: To test a large magnetic anomaly which modelling had indicated could be due to a discrete mineralisation source.

RESULT: Weak Fe-As-Ag sulphides intersected in a fault zone. Neither the mineralisation nor the lithologies encountered can account for the magnetic anomaly.

TOTAL DEPTH: 568 m.
HOLE SIZE: H.Q. 80.0 m; N.Q. 345.0 m; B.Q. 568.5 m
COMMENCED: 3rd June 1983
COMPLETED: 16th July 1983
LOGGED BY: Ian. McDonald.

03

8-12 Depth (m)	13-16 Direction	17-18-21 Dip.	8-12 Depth (m)	13-16 Direction	17-18-21 Dip.
43 m	079° AMG.	-60°	274 m	082.5°	-58°
85 m	079°	58.5°	330 m	081°	58°
118 m	080°	58°	365 m	083°	58.5°
180 m	078°	59°	473 m	081°	59°
250 m	080°	58.5°	565 m	086°	59°

02

COLLAR DIP. (12-15): -60°
DIRECTION (16-19): 080° AMG.
R.L. (20-23): 440.9 m.
CO-ORDS.: 5,367,087.4 m N; 374,114.5 m E

04

Depth (m) FROM	TO	ROCK DESCRIPTION	MINERALISATION	CORE REC'D RUN	SHORT
0	31.5	Zone of oxidation and broken core.		5.0	4.5
		Iron oxide staining abundant, especially		6.3	0.5
		in finer grained rocks. Core loss		7.9	1.2
		average 30% over total interval; more		11.8	0.2
		lost from finer-grained rocks.		12.2	–
				15.0	–
0	9.3	Very broken iron stained dark grey		13.7	0.2
		siltstone with clasts and disrupted		15.7	1.0
		laminae of pale grey fine grained		16.4	–
		sandstone Solution pits and cavities		19.1	1.9
		after carbonate veins are common		24.3	–
				25.0	0.2
9.3	11.5	Pale grey m.g. massive quartz arenite		25.9	0.2
		with iron oxide staining on joint		30.2	–
		surfaces and thin carbonate veins -		31.7	0.1
		now largely trails of solution		93.2	–
		cavities		94.2	0.4
				95.1	0.2
11.5	20.1	Very broken core largely iron oxide		96.2	0.2
		stained dark grey siltstone as per		568.5	–
		0-9.3m. with scattered larger			
		fragments of quartzite representing			
		thin bands as per 9.3-11.5m			
		16.5-19.5 Fragments of soft greenish			
		grey cleaved chlorite spotted			
		mudstone.			

ASSAY DATA

SAMPLE No.	8-13 FROM	14-19 TO	Sample Length	Sn	W	Au	As	Ag	Cu	Pb	Zn	Mn	Fe %	Cr
57924	8.0	8.5	0.5	8			85	x	30	26.5	60	170	3.35	55
57925	10.0	10.5	0.5	8			51	0.5	50	35	40	240	1.00	40
57926	16.0	16.5	0.5	6			51	x	55	11.0	40	240	1.56	40

A 1124

486053

ELECTROLYTIC ZINC CO. OF A'ASIA LTD.
ROSEBERY – TASMANIA

DIAMOND DRILL CORE RECORD

HOLE No. R.R.P. 239
Sheet 2.
A 11241

FROM	TO	ROCK DESCRIPTION	MINERALISATION	SAMPLE No.	8-13 FROM	14-19 TO	Sample Length	Sn	W	Au	As	Ag	Cu	Pb	Zn	Mn	Fe %	Cr
								ASSAY DATA										
20.1	22.0	Pale grey f-m.g. Quartz Arenite as per 9.3 – 11.5m.		57927	21.0	21.5	0.5	X			4	X	20	5	35	115	0.55	25
22.0	24.8	Breccia. Disrupted laminae of dark grey to black Siltstone and pale grey f-m.g. Quartz Sandstone and pale grey f.g. lithic arenite. The dark siltstone forms a matrix to clasts and disrupted ?beds of sandstone. Locally bedding is less disrupted and varies from 5° to 50°		57928	23.0	23.5	0.5	X			39	0.5	25	45	40	65	1.70	·20
24.8	27.2	Pale grey f-m.g. Quartz Arenite as per 9.3 – 11.5 m.																
27.2	28.7	Grey f-m.g. Lithic Arenite. Quartzo-feldspathic ?volcanic liths plus black ?mudstone liths. Core weakly oxidised and very broken		57929	28.0	28.5	0.5	X			14	X	25	5	35	260	0.80	40
28.7	29.1	Core very broken. Mixture of pale grey siliceous Siltstone and dark grey to black argillaceous Siltstone	Trace to 1% m.g. dissem. pyrite															
29.1	30.0	Grey f.g. massive Quartzite. Minor Iron oxide staining on joint surfaces	Trace dissem py associated with thin carbonate veins.															
30.0	31.5	Brownish-green wk-mod oxidised m.g. Quartz-Lithic-Arenite with abundant thin carbonate veins. Core very broken																

ELECTROLYTIC ZINC CO. OF A'ASIA LTD.
ROSEBERY – TASMANIA

DIAMOND DRILL CORE RECORD

HOLE No. R.R.P. 239
Sheet 3

A 11241

FROM	TO	ROCK DESCRIPTION	MINERALISATION	SAMPLE No.	8-13 FROM	14-19 TO	Sample Length	Sn	W	Au	As	Ag	Cu	Pb	Zn	Mn	Fe %	Cr
31.5	33.5	Grey f.g. Quartz-(Lithic) Arenite. Lithic grains are felsic. Thin brown weathering carbonate veins. Core broken round the lower contact but it appears gradational	Traces disseminated pyrite mainly associated with carbonate veins	57930	32.0	32.5	0.5	X			14	X	10	65	40	680	2.15	40
33.5	39.7	Pale blue grey Lithic Crystal Felsic Tuff. Black mudstone liths; pale ?rhyolitic liths, and coarser carbonate (?liths or replacements) set in a fine quartzo-feldspathic matrix. Thin carbonate veinlets. Lower contact gradational		57931	35.0	35.5	0.5	X			14	0.5	15	45	105	2350	5.85	35
39.7	42.3	Grey mottled m-cg. Lithic Crystal Felsic Tuff. Liths as per unit above but coarser grained and with less carbonate. Less matrix may imply reworking of the tuff. Lower contact is irregular average 60°. Normal Sedimentary contact. Flame structures imply up-hole facing. Sample No 43861 - Thin section		57932	39.5	40.0	0.5	X			9	X	5	20	45	1450	5.20	20
42.3	67.9	Laminated dark grey Siltstone and pale grey f.g. Quartz-Lithic Wacke. Lithic grains are felsic volcanic. Laminae or beds vary from about 1mm to 15mm thick. Beds are frequently disrupted and display micro-faulting, slumping and breccia textures. Where		57933	46.0	46.5	0.5	X			77	0.5	95	25	35	1050	2.95	25

ELECTROLYTIC ZINC CO. OF A'ASIA LTD.
ROSEBERY – TASMANIA

DIAMOND DRILL CORE RECORD

HOLE No. RRP 239
Sheet 4

A 11241

CORE REC'D

FROM	TO	ROCK DESCRIPTION	MINERALISATION	SAMPLE No.	8-13 FROM	14-19 TO	Sample Length	ASSAY DATA Sn	W	Au	As	Ag	Cu	Pb	Zn	Mn	Fe %	Cr
		relatively undisrupted, the beds are																
		undulose. Orange weathering																
		carbonate occurs as cross-cutting																
		veins and as thin conformable																
		beds																
		45·4m 40mm wide quartz-carbonate																
		vein at 40°																
		48·5 - 48·7 Quartz-carbonate vein with																
		2% hematite at 35° Core																
		broken. Possible fault zone																
		infilling?																
		59·9 - 60·0 Broken quartz-carb vein @ 55°																
		61·2 - 61·3 " " " " " 65°																
		61·6 - 61·7 " " " " " 50°																
		42·3 - 44·4 Bedding Angle 55-65°																
		44·4 - 45·4 " " 20°		57934	55·0	55·5	0·5	X			47	X	75	5	35	1000	3·55	25
		45·4 - 46·0 " " irregular																
		46·0 - 47·7 " " sub-parallel																
		47·7 - 48·5 " " irregular mainly 10-30°																
		48·7 - 51·7 " " irregular																
		51·7 - 55·6 " " 25 - 30°																
		55·6 - 57·8 " " irregular to sub-parallel																
		57·8 - 61·2 " " 10 - 15°																
		61·2 - 62·5 " " Sub-parallel																
		62·5 - 64·5 " " 15°																
		64·5 - 67·9 " " Increase from																
		30° to 40°																
		A weak penetrative cleavage occurs																
		throughout at about 5°																
		Facing evidence is not good and																

ELECTROLYTIC ZINC CO. OF A'ASIA LTD.
ROSEBERY – TASMANIA

DIAMOND DRILL CORE RECORD

HOLE No. R.R.P 239
Sheet 5

A 11241

FROM	TO	ROCK DESCRIPTION	MINERALISATION	SAMPLE No.	8-13 FROM	14-19 TO	Sample Length	Sn	W	Au	As	Ag	Cu	Pb	Zn	Mn	Fe %	Cr
		seems equivocal. A combination of																
		grading and flame structures at		57935	65.0	65.5	0.5	3			51	0.5	50	5	35	640	2.95	20
		about 67.5 m suggests up-hole																
		facing but is not definite.																
67.9	68.1	Contact zone is a breccia composed	Minor c.g. pyrite.															
		of grey very f.g. ?ash containing																
		clasts of black Siltstone, porphyritic																
		Tuff and Cherty Siltstone, and is																
		extensively veined by white carbonate																
		especially in the more siltstone																
		rich section from 67.9 to 68.0 Lower																
		contact is irregular but about 50-55°																
68.1	78.1	Grey porphyritic Crystal Lithic Felsic Tuff	Trace disseminated pyrite.															
		Liths up to 10mm. average 2mm. Black																
		mudstone liths, pale greenish grey rhyolite																
		liths and orange weathering carbonate																
		? after Feldspar crystals in a weakly bedded quartz		57936	70.0	70.5	0.5	X			7	X	10	15	30	900	3.15	25
		sericite ± carbonate matrix. Scattered																
		thin carbonate veins																
		68.1 - 68.4 Contains Large (30mm thick over																
		entire core) Black Siltstone liths.																
		68.1 - 68.8 Grain-size coarser than																
		remainder of unit																
		72.2 - 72.35 Massive carbonate-quartz vein @ 70°																
		77.6 - 78.1 Lower contact zone composed																
		almost entirely of lithic fragments																
		and crystals with reduced matrix																
		Increased thin carbonate veining.																

486057

ELECTROLYTIC ZINC CO. OF A'ASIA LTD.
ROSEBERY – TASMANIA

DIAMOND DRILL CORE RECORD

HOLE No. RRP 239
Sheet 6

A 11241

FROM	TO	ROCK DESCRIPTION	MINERALISATION	SAMPLE No.	8-13 FROM	14-19 TO	Sample Length	Sn	W	Au	As	Ag	Cu	Pb	Zn	Mn	Fe %	Cr
		Lower contact is broken core round a																
		quartz – carbonate vein at 80°																
		72.0 Sample No. 43862 - Thin Section.																
78.1	83.0	Laminated dark grey Siltstone and f.g.																
		Felsic Lithic Wacke' as per 42.3 - 67.9.																
		78.1 - 83.2 Core very broken and strongly		57937	81.0	81.5	0.5	x			25	x	80	10	20	870	3.10	20
		carbonate veined.																
		80.3 - 83.0 Bedding angle 25° Suggestion																
		of downhole facing from																
		grading but not definite																
		Lower contact is very gradational. There																
		is a steady decrease in the ammount of																
		pale grey wacke' and increase in dark																
		grey to black siltstone and mudstone.																
83.0	95.0	Dominantly dark grey to black Siltstone																
		and Mudstone with lessor ammounts of																
		interbeds of pale grey fg. Lithic Wacke'																
		and Siltstone Orange -weathering																
		carbonate occurs as cross-cutting																
		veins and more rarely as thin																
		impersistant conformable 'beds' A																
		weak penetrative cleavage occurs throughout																
		at about 5°																
		87.0 - 87.2 Thick quartz - carbonate veins, annealing		57938	89.0	89.5	0.5	x			72	x	100	10	35	830	3.45	15
		a tectonic breccia Possible Fault zone																
		87.2 - 90.0 More laminated section with																
		sub-parallel bedding angle.																
		90.0 - 95.0 Core very broken with more																

48605 8

ELECTROLYTIC ZINC CO. OF A'ASIA LTD.
ROSEBERY — TASMANIA

DIAMOND DRILL CORE RECORD

HOLE No. RRP 239
Sheet 7

A 11241

FROM	TO	ROCK DESCRIPTION	MINERALISATION	SAMPLE No.	8-13 FROM	14-19 TO	Sample Length	Sn	W	Au	As	Ag	Cu	Pb	Zn	Mn	Fe %	Cr
		abundant thin carbonate veins and occasional quartz-carbonate veins up to 20mm thick																
95.0	95.2	Contact Zone. Breccia with a matrix of Black Mudstone and clasts of underlying micaceous Quartzite. Clasts become dominant and form entire rock downwards. Core very broken																
95.2	106.4	Grey f.g. Micaceous Quartz Wacke' Framework grains mainly quartz plus minor mudstone liths. Thin irregular brown-weathering carbonate veins.																
		95.2 - 96.8 Interbeds of black mudstone with slump breccia textures																
		97.0 - 97.1 Breccia. Mudstone matrix with micaceous quartzwacke' clasts																
		99.6 - 99.7 Interbeds of black Mudstone up to 10mm thick, @ 55°																
		100.1 - 100.2 Breccia. Mudstone matrix with micaceous quartz wacke clasts																
		100.2 - 100.4 Thin (2mm) Black Mudstone interbeds @ 35°		53939	100.0	100.5	0.5	X			8	x	20	15	35	900	1.60	100
		100.9 - 106.4. Zones of irregular Mudstone intercallations. Generally as matrix to clasts of micaceous quartz wacke' Look like thin soft-sediment breccia zones.																
		97.5 Sample No 43863 · Thin Section																

ELECTROLYTIC ZINC CO. OF A'ASIA LTD.
ROSEBERY — TASMANIA

DIAMOND DRILL CORE RECORD

HOLE No. R.R.P. 239
sheet 8
A 11241

FROM	TO	ROCK DESCRIPTION	MINERALISATION	SAMPLE No.	8-13 FROM	14-19 TO	Sample Length	Sn	W	Au	As	Ag	Cu	Pb	Zn	Mn	Fe %	Cr
106.4	109.8	Transitional contact zone of decreasing Quartz-Wacke and increasing Breccia but with occasional large clasts of Wacke. 109.0 - 109.8 Very strongly carbonate veined Breccia. Yellow-weathering carbonate veins form 50% of rock. Contacts on zone of veining are 20°		57940	104.5	105.0	0.5	x			11	x	15	40	30	710	1.40	60
109.8	121.1	Breccias. Soft-sediment, mass-flow style Breccias. A dark grey to black Mudstone to Siltstone matrix supports approximately 40% of clasts. Clasts range from 1mm to greater than 100mm and are dominantly composed of f-mg Quartz-Lithic Wacke. The clasts are preferentially replaced by orange-weathering carbonate. Lower contact irregular about 45°	Trace to minor Pyrite as weak disseminations and as fragmental clasts up to 3mm.	57941	115.0	115.5	0.5	x			20	x	20	25	50	880	3.00	40
121.1	121.4	Conglomerate. (Sensu-Stricto Diamictite) Poorly sorted, polymictic. Clasts range from 1mm up to 8mm and comprise Black Siltstone, Grey fg Quartz Arenite, Buff Quartz-Feldspar Arenite, Pale greenish grey fg Felsic Lithic Tuff. Some clasts are carbonate veined. Later carbonate veins cut across entire rock fabric. Lower contact 60°																

486060

ELECTROLYTIC ZINC CO. OF A'ASIA LTD.
ROSEBERY – TASMANIA

DIAMOND DRILL CORE RECORD

HOLE No. RRP 239
Sheet 9

A 11241

FROM	TO	ROCK DESCRIPTION	MINERALISATION	SAMPLE No.	8-13 FROM	14-19 TO	Sample Length	Sn	W	Au	As	Ag	Cu	Pb	Zn	Mn	Fe %	Cr
121·4	122·2	Poorly bedded grey f.g. Quartz-Lithic Wacke with whispy interbeds up to 3mm thick of yellow to grey sericite rich Siltstone, and rare whispy beds of m-c.g. Tuffaceous Wacke. Bedding angle 20° 121·75 - 122·1 Approximately 30% of core on a subparallel contact is Conglomerate as per 121·1 - 121·4 Lower contact 25°																
122·2	122·4	Grey f-m.g. Quartz-Feldspar-Lithic Wacke with abundant thin brown-weathering carbonate veins. May be a discrete bed or a mega clast in conglomerate. Lower contact 25°																
122·4	123·3	Conglomerate as per 121·1 - 121·4 Lower contact irregular about 25°		57942	122·5	123·0	0·5	X			12	X	170	10	90	950	4·40	50
123·3	124·1	Dark grey Siltstone with disrupted beds and clasts of grey f-m.g. Quartz-Feldspar-Lithic Wacke. Looks like slump brecciation. Orange weathering carbonate preferentially veins and replaces clasts. Weak bedding 15-20° Lower contact 40°		57943	123·[illegible]	124·0	0·5	X			11	X	30	10	75	1100	3·15	40
124·1	124·3	Conglomerate as per 121·1 - 121·4 Lower contact 45°																

486061

ELECTROLYTIC ZINC CO. OF A'ASIA LTD.
ROSEBERY – TASMANIA

DIAMOND DRILL CORE RECORD

HOLE No. R.R.P. 239
Sheet 10

A 11241

FROM	TO	ROCK DESCRIPTION	MINERALISATION	SAMPLE No.	8-13 FROM	14-19 TO	Sample Length	Sn	W	Au	As	Ag	Cu	Pb	Zn	Mn	Fe %	Cr
124.3	135.0	Interbedded grey to dark grey Siltstone and Fg Lithic Sandstone with pale grey to buff f-mg and mg Quartz-Feldspar-Lithic Wacke. Siltstone comprises about 60% of core. Wacke's occur as discrete beds with usually irregular contacts, and as disrupted beds and clasts in a slump breccia texture. The coarser grained lithology is preferentially veined and replaced by orange to buff-weathering carbonate. 128.5-128.7 Bedding sub parallel.																
		130.0 - 130.5 Bedding 30° Grading in wacke to siltstone implies down-hole facing		57944	130.0	130.5	0.5	x			11	x	15	5	35	1050	2.45	35
		130.5 - 133.5 Breccia texture more dominant. Lower Contact 40°																
135.0	135.4	Conglomerate as per 121.1 - 121.4 but with additional clasts of milky white quartz and more abundant lithic tuff clasts. Lower contact diffuse.																
135.4	137.3	Greenish-buff Slump Breccia of micaceous Mudstone and Siltstone and f-mg feldspathic Sandstone. Carbonate veining and carbonate replacement of ?feldspar grains is common. Weak bedding 20-25° Lower Contact 40°	Trace very fine grained Pyrite	57945	136.0	136.5	0.5	x			20	x	145	205	140	2950	5.25	50

486062

ELECTROLYTIC ZINC CO. OF A'ASIA LTD.
ROSEBERY – TASMANIA

DIAMOND DRILL CORE RECORD

HOLE No. RRP 239
Sheet 11

A 11241

FROM	TO	ROCK DESCRIPTION	MINERALISATION	SAMPLE No.	8-13 FROM	14-19 TO	Sample Length	Sn	W	Au	As	Ag	Cu	Pb	Zn	Mn	Fe %	Cr
		137·0 Sample No 43864 - Thin Section																
137·3	138·5	Conglomerate as per 135·0–135·4 Lower contact very diffuse through a zone of increasing clast size and development of a more distinct siltstone matrix.																
138·5	166·5	Mass Flow Breccias Dominantly black to																
		dark grey Mudstone with varying amounts		57946	140	140·5	0·5	x			25	x	20	30	50	1050	3·10	35
		of buff carbonated and carbonate veined Quartz-Lithic Wacke' The Wacke occurs as breccia clasts and as disrupted beds. Weak cleavage throughout sub parallel to 10°																
		139·1 - 139·35 Conglomerate as per 135·0 – 135·4																
		139·35 - 141·1 Breccia texture dominant																
		141·1 - 142·9 Carbonated Quartz-Lithic Wacke' is dominant phase																
		147·4 - 149·7 Black Mudstone only with minor carbonate veins May be graphitic																
		150·3 - 154·9 Black Mudstone		57947	150·0	150·5	0·5	x			17	x	30	25	35	550	2·30	35
		152·1 - 155·5 Carbonated beds of wacke' are less disrupted and display a weak banding at about 40°																
		155·5 - 159·8 Black Mudstone as per 147·4 - 149·7																
		158·0 - 166·5 Core contains increasing broken																
		zones.		57948	158·0	158·5	0·5	x			88	x	30	55	60	650	2·25	35
		164·1 - 166·5 Breccia texture dominant																
166·5	166·8	White Quartz + minor carbonate vein with inclusions of siltstone breccia																

486063

ELECTROLYTIC ZINC CO. OF A'ASIA LTD.
ROSEBERY – TASMANIA

DIAMOND DRILL CORE RECORD

HOLE No. R.R.P. 239
Sheet 12

A 11241

FROM	TO	ROCK DESCRIPTION	MINERALISATION	SAMPLE No.	8-13 FROM	14-19 TO	Sample Length	ASSAY DATA Sn	W	Au	As	Ag	Cu	Pb	Zn	Mn	Fe %	Cr
166·8	167·0	Broken black Mudstone																
167·0	167·6	White Quartz + minor carbonate Vein																
167·6	168·0	Breccia. Black Mudstone matrix with		57949	167·6	168·0	0·4	6			54	X	30	15	30	3050	3·15	65
		clasts of quartz vein and carbonated																
		Wacke' and with thin carbonate veins																
168·0	168·5	Buff Carbonate (? siderite) – quartz Vein plus	1% f-mg Pyrite lining vugs															
		small included fragments of siltstone.																
		Carbonate is coarsly crystaline																
168·5	168·9	White Quartz Vein with minor carbonate																
		and inclusions of Siltstone																
168·9	170·4	Mainly dark grey to black Siltstone Core																
		very broken Clasts and disrupted beds																
		of f.g Quartz-Lithic-Wacke' occur with		57950	169·0	169·5	0·5	5			68	0·5	10	20	45	1600	3·30	50
		carbonate veins and breccia clasts.																
		Quartz veins less common																
		169·4 – 169·5 Quartz - carbonate vein.																
		170·3 – 170·4 Quartz - minor carbonate vein																
		with inclusions of Siltstone																
		Entire zone from 166·5 – 170·4 looks																
		like a fairly major fault or fracture																
170·4	171·8	Siltstone Breccia Dark grey to black	Trace to less than 1% f.g															
		Siltstone as matrix to clasts and disrupted	disseminated Pyrite	57951	171·0	171·5	0·5	X			91	X	20	40	45	1500	2·10	40
		beds of pale grey f-mg Quartz-Lithic																
		Arenite Thin quartz and carbonate																

ELECTROLYTIC ZINC CO. OF A'ASIA LTD.
ROSEBERY – TASMANIA

DIAMOND DRILL CORE RECORD

HOLE No. RRP 239
Sheet 13

A 11241

FOOTAGE FROM	FOOTAGE TO	ROCK DESCRIPTION	MINERALISATION	SAMPLE No.	8-13 FROM	14-19 TO	Sample Length	Sn	W	Au	As	Ag	Cu	Pb	Zn	Mn	Fe %	Cr
		veins have several orientations but most																
		common is about 40°																
171.8	175.6	Dark grey Siltstone with minor																
		irregular interbeds or clasts of fg.																
		strongly carbonated, yellow weathering																
		Arenite. Yellow weathering carbonate																
		veins common Weak penetrative		579 52	175.0	175.5	0.5	X			74	X	15	15	20	830	2.05	30
		cleavage 15°																
		174.2 ? Bedding angle ~15°, shows a																
		small slump fold.																
		175.7 Bedding angle 50° Very poor																
		equivocal grading suggests up hole																
		is up sequence.																
		Lower Contact is carbonate vein @ 60°																
176.6	188.4	Sedimentary Mass Flow style Breccia.	Pyrite occurs preferentially															
		Dark grey to black Mudstone – Siltstone	with the arenites and in															
		matrix contains clasts, dominantly	places partially and totally	57953	179.5	180.0	0.5	X			24	X	20	15	30	710	2.25	80
		of grey f-mg Quartz-Lithic Arenite	replaces clasts. Total															
		and minor grey Quartzite. Clasts range	Pyrite content about 1%.															
		from 2mm up to disrupted "beds" of																
		greater than 100mm. In total clast to																
		matrix is close to 1:1 Thin quartz and																
		orange weathering carbonate veins are																
		random. Weak Cleavage slightly variable																
		10-25°		57954	185.0	185.5	0.5	X			52	X	35	25	20	190	1.95	30
		177.6-177.7 Quartz - carbonate vein @ 50°																
		179.4 60mm. Quartz - carbonate vein @ 85°																
		183.4 Sample No 43865 · Thin Section.																

486065

ELECTROLYTIC ZINC CO. OF A'ASIA LTD.
ROSEBERY – TASMANIA

DIAMOND DRILL CORE RECORD

HOLE No. RRP 239
Sheet 14

A 11241

FOOTAGE FROM	FOOTAGE TO	ROCK DESCRIPTION	MINERALISATION	SAMPLE No.	8-13 FROM	14-19 TO	Sample Length	Sn	W	Au	As	Ag	Cu	Pb	Zn	Mn	Fe %	Cr
188.4	190.0	Sedimentary Breccia. Disrupted laterbeds of grey fg Lithic Wacke and f-mg and mg Quartz-Lithic Arenite. Bedding or ?slump banding @ 20° Weak cleavage 10-15° Contacts gradational.																
190.0	193.0	Grey massive f-mg Felsic Lithic Wacke' Thin Yellow-weathering carbonate veins. Lower contact gradational into slump breccia with bedding @ 30°		57955	191.0	191.5	0.5	X			34	X	45	x	35	650	2.95	50
193.0	198.5	Sedimentary Breccia as per 188.4-190.0 195.8-196.2 ?Bed of mg Felsic Tuffaceous Wacke' Framework grains are strongly carbonated with yellow weathering carbonate. 197.2-198.5 Breccia texture more pronounced with an increasing ammount of siltstone matrix Lower contact irregular with carbonate veins.		57956	195.0	195.5	0.5	X			19	X	15	x	25	560	3.40	55
198.5	199.9	Grey f-mg Felsic Lithic Wacke' as per 190.0 – 193.0.																
199.9	200.7	Contact zone containing a mixture of Wacke' as above and Breccia as below																

486066

ELECTROLYTIC ZINC CO. OF A'ASIA LTD.
ROSEBERY – TASMANIA

DIAMOND DRILL CORE RECORD

HOLE No. RRP 239
Sheet 15

A 11241

FOOTAGE FROM	FOOTAGE TO	ROCK DESCRIPTION	MINERALISATION	SAMPLE No.	8-13 FROM	14-19 TO	Sample Length	Sn	W	Au	As	Ag	Cu	Pb	Zn	Mn	Fe %	Cr
200·7	211·2	Sedimentary Breccia as per 176·6–188·4		57957	205·5	206·0	0·5	x			26	x	25	·15	115	960	3·20	45
211·2	214·1	Grey mg Felsic Lithic Wacke and lesser Lithic Arenite. Generally massive but with some slump textures. Thin yellow-weathering carbonate veins.		57958	212·0	212·5	0·5	x			2	x	10	45	45	740	2·15	95
		212·6 – 213·1 Breccia as per 176·6–188·4. Maximum clast size ~ 30 mm. With contacts @ 25°.																
		Lower contact 35°																
214·1	216·2	Pale greenish-grey mg Felsic Tuffaceous Wacke with wispy interbeds of grey mudstone which impart a breccia texture to the rock. Thin yellow-weathering carbonate veins. Lower contact diffuse ~15°.		57959	215·0	215·5	0·5	x			12	x	20	x	45	390	3·20	260
		215·8–215·9 Large clast of a polymict quartz rich Breccia with clasts up to 4mm. Contains bright apple-green sericite-hydromuscovite stained clasts																
		215·85 Sample No 43866 Thin Section.																
216·2	217·3	Pale grey f.g. sheared Orthoquartzite with scattered carbonate, chlorite and feldspar grains. Lower Contact 25°	Chromite occurs in detrital heavy mineral bands.	57960	216·5	217·0	0·5	x			10	X	10	10	50	600	2·10	575
		217·2 Sample No 43867 · Thin Section.																
217·3	228·7	Siltstone Slump Breccias Dominantly																

486067

ELECTROLYTIC ZINC CO. OF A'ASIA LTD.
ROSEBERY – TASMANIA

DIAMOND DRILL CORE RECORD

HOLE No. RRP 239

Sheet 16 A 11241

FROM	TO	ROCK DESCRIPTION	MINERALISATION	SAMPLE No.	8-13 FROM	14-19 TO	Sample Length	Sn	W	Au	As	Ag	Cu	Pb	Zn	Mn	Fe %	Cr
		dark grey Siltstones contain disrupted																
		beds and clasts of yellow weathering		57961	225·5	226·0	0·5	x			34	x	15	15	40	1400	3·20	30
		strongly carbonated Felsic Lithic Arenite																
		Bedding irregular from sub-parallel to 20°																
		Weak penetrative cleavage 10-15°. Cleavage																
		to bedding angle approx 25° Lower																
		contact 25°																
228·7	235·4	Sedimentary Breccias as per 176·6 - 188·4																
		They differ from the overlying unit in																
		having much less carbonate, a more		57962	230·0	230·5	0·5	x			40	x	5	35	35	1350	2·20	25
		definite matrix supported breccia texture																
		and much less elicit bedding.																
235·4	235·6	Massive creamy-yellow weathering,																
		coarsely crystalline Carbonate Vein.																
		Upper contact irregular about 80° Lower																
		contact sharp 45°. Possible carbonate																
		filled fault or fracture zone.																
235·6	236·0	Pale brownish grey very f.g. Argillaceous																
		Chert Sericite-Carbonate veinlets. Lower Contact 45°																
		235·8 Sample No 43868 - Thin Section.																
236·0	240·1	Sedimentary Slump Breccia. Dark grey																
		Siltstone, brown weathering strongly		57963	237·0	237·5	0·5	x			210	0·5	40	30	65	3500	5·25	40
		carbonated f.g. Tuffaceous Wacke and																
		f.g. Chert ... form a chaotic breccia																
		with abundant thin carbonate veins.																
		236·2 - 237·0 Large clasts or blocks of																

486068

ELECTROLYTIC ZINC CO. OF A'ASIA LTD.
ROSEBERY – TASMANIA

DIAMOND DRILL CORE RECORD

HOLE No. RRP 239
Sheet 17

A 11241

FROM	TO	ROCK DESCRIPTION	MINERALISATION	SAMPLE No.	8-13 FROM	14-19 TO	Sample Length	Sn	W	Au	As	Ag	Cu	Pb	Zn	Mn	Fe %	Cr
		blocks of Chert as per																
		235·6 - 236·0																
		238·3-238·5 Band or large clast of greenish																
		grey f.g. Felsic Lithic Tuff. Degraded																
		Feldspathic liths and black shale liths																
		in a weakly carbonate matrix. Contacts																
		irregular.																
		Lower contact 30°																
240·1	240·5	Greenish-grey mg. Lithic Felsic Tuff.																
		Felsic volcanic liths, black shale liths,																
		and sericitised and carbonated feldspar																
		liths up to 3mm. Lower contact																
		irregular about 60°																
240·5	241·7	Brecciated pale pinkish grey, very f.g.																
		possible pelitic Vitric Ash. Probably		57964	241·0	241·5	0·5	x			41	0·5	5	20	110	5800	8·70	65
		an Argillaceous Chert as per 235·6-236·0.																
		Contains inclusions of dark grey Siltstone,																
		thin random chlorite veinlets and																
		brown-weathering carbonate veins. Lower																
		contact 30°																
241·7	247·0	Sedimentary Breccia. Pale greenish																
		grey mg 'Tuffaceous Wacke' and dark																
		grey Siltstone form contorted slump		57965	245·0	245·5	0·5	x			38	1·0	185	25	120	1·15%	8·70	375
		breccia with brown-weathering carbonate																
		veins increasing downwards.																
		Lower contact gradational																

ELECTROLYTIC ZINC CO. OF A'ASIA LTD.
ROSEBERY — TASMANIA

DIAMOND DRILL CORE RECORD

HOLE No. RRP 239
Sheet 18

A 11241

FROM	TO	ROCK DESCRIPTION	MINERALISATION	SAMPLE No.	8-13 FROM	14-19 TO	Sample Length	Sn	W	Au	As	Ag	Cu	Pb	Zn	Mn	Fe %	Cr
247.0	248.3	Sedimentary Breccia. Dark grey Siltstone, pale brownish grey Argillaceous Chert greenish carbonated Tuffaceous Wacke', and yellow sericitic Mudstone form a contorted slump breccia. Lower contact gradational																
248.3	251.0	Dark grey Siltstone with scattered clasts of yellow carbonated Lithic Sandstone and occasional thin carbonate veins lower contact 35°		57966	250.0	250.5	0.5	x			22	x	20	20	95	3200	8.15	95
251.0	254.3	Sedimentary Breccia similar to 247.0-248.3, but with increased sericitic f.g. Lithic Vitric Tuff component 252.9 - 253.5 More siltstone rich section with coarse banding @ 35° Lower Contact 20°	1% f.g. disseminated Pyrite.	57967	252.0	252.5	0.5	x			9	x	10	15	85	2050	7.15	70
254.3	254.8	Massive coarsely crystaline orange-weathering Carbonate + quartz Vein ?Possible Fault zone Lower contact 25°																
254.8	256.9	Sedimentary Breccia as per 176.6-188.4 lower contact irregular about 20°																
256.9	260.4	Dark grey to black mainly massive Siltstone. Occasional clasts and small disrupted bands of grey f.g. Lithic Arenite which are frequently strongly contorted		57968	259.0	259.5	0.5	X			62	4.0	200	60	90	4500	7.25	65

ELECTROLYTIC ZINC CO. OF A'ASIA LTD.
ROSEBERY – TASMANIA

DIAMOND DRILL CORE RECORD

HOLE No. RRP 239
Sheet 19

A 11241

FROM	TO	ROCK DESCRIPTION	MINERALISATION	SAMPLE No.	8-13 FROM	14-19 TO	Sample Length	Sn	W	Au	As	Ag	Cu	Pb	Zn	Mn	Fe %	Cr
		258.2 - 258.6 Pale brownish grey strongly carbonated f-mg Tuffaceous Wacke' with internal slump/flow structures. Contacts Upper 60°, Lower 35°. Lower contact gradational.																
260.4	262.0	Green-grey f-mg chloritised Tuffaceous Wacke' with internal slump structures and interbeds/inclusions of dark grey Siltstone. Contact grad. 262.0 Sample No 43869 Thin Section		57969	261.0	261.5	0.5	x			41	0.5	20	30	125	6500	11.50	255
262.0	263.0	Grey massive f-mg Felsic Lithic Wacke' lower contact diffuse ~ 25°																
263.0	264.7	Greenish grey, carbonated Tectonically Brecciated f-mg Wacke' with Siltstone fragments and increasing carbonate veins, clots and matrix. Lower contact gradational over increasing carbonate content.																
264.7	266.6	Tectonic Breccia, annealed by cream weathering carbonate. Rock is +70% carbonate with relict fragments of f.g. sediment. Lower contact gradational.		57970	265.0	265.5	0.5	x			4	x	10	20	85	3510	7.55	85
266.6	270.4	Sedimentary Breccia. Mainly grey f-mg Felsic Lithic Wacke with jumbled intraclasts of dark grey Siltstone. Variably carbonated and veined by brown and yellow	Trace to 1% Pyrite on joint surfaces.															

486071

ELECTROLYTIC ZINC CO. OF A'ASIA LTD.
ROSEBERY – TASMANIA

DIAMOND DRILL CORE RECORD

HOLE No. ARP 239
Sheet 20

A 11241

FROM	TO	ROCK DESCRIPTION	MINERALISATION	SAMPLE No.	8-13 FROM	14-19 TO	Sample Length	Sn	W	Au	As	Ag	Cu	Pb	Zn	Mn	Fe %	Cr
		weathering carbonate veins Very weak																
		cleavage from 5° to 20° Lower contact		57971	268.0	268.5	0.5	x			1	x	10	15	70	970	5.95	85
		sharp on thin carbonate vein @ 60°																
270.4	277.9	Sedimentary Breccia as per 176.6 – 188.4																
		270.9 – 272.1 F-mg Arenite is dominant and																
		forms matrix to whispy clasts of		57972	275.0	275.5	0.5	x			2	0.5	45	15	55	785	3.45	135
		Mudstone																
		272.1 – 273.2 as per 270.7 – 272.1 above																
		277.6 – 277.9 Laminated Siltstone and f.g.																
		Arenite, and aligned clasts																
		Bedding at 30°.																
277.9	283.9	Grey-green fg Lithic-Quartz Wacke with plastically																
		deformed irregular interbeds of m-cg.																
		Tuffaceous, Lithic Wacke. Variable thin		57973	280.0	280.5	0.5	x			9	x	110	x	65	310	3.60	90
		carbonate veins. Weak penetrative cleavage																
		at 10°																
		282.0 – 283.7 Orange weathering strongly carbonated																
		section of mg. Tuffaceous Wacke'																
		Lower contact 25°																
283.9	286.6	Sedimentary Breccia as per 176.6 – 188.4																
		283.9 – 284.1 Strong yellow weathering		57974	285.0	285.5	0.5	x			10	x	20	x	60	910	4.25	55
		carbonate veins.																
		Lower contact gradational through decreasing																
		breccia texture																
286.6	289.3	Slump Breccia. Pale yellowish grey																
		sericitic Siltstone with contorted																

486072

ELECTROLYTIC ZINC CO. OF A'ASIA LTD.
ROSEBERY – TASMANIA

DIAMOND DRILL CORE RECORD

HOLE No. RRP 239
Sheet 21

A 11241

FROM	TO	ROCK DESCRIPTION	MINERALISATION	SAMPLE No.	8-13 FROM	14-19 TO	Sample Length	Sn	W	Au	As	Ag	Cu	Pb	Zn	Mn	Fe %	Cr
		?interbeds of black Mudstone, grey Siltstone and m.g. Tuffaceous Wacké, with variable carbonate veining Lower contact gradational																
289.3	290.1	Dark grey to Black Mudstone with yellow carbonated veins and carbonate replaced small clasts of coarser sediment. Weak banding @ 40° Lower Contact 55°																
290.1	292.5	Sedimentary Breccia. Chaotic ?slump breccia consisting of variably sized clasts and ?beds up to 200mm. of cream sericitic Siltstone, black Mudstone, yellow carbonated fg. Lithic Wacké, and grey fg Lithic-Quartz-Arenite, and abundant carbonate veins lower contact gradational		57975	291.0	291.5	0.5	X			2	X	35	X	65	820	4.3	65
292.5	295.6	Slump Breccia. Similar to above but more consistently composed of greenish grey mg. Tuffaceous Wacke' and with fewer carbonate veins. Lower Contact irregular about 30°																
295.6	297.0	Grey Siltstone and thin whispy black Mudstone interbedded with disrupted and carbonated beds of fmg Quartz Lithic Wacke up to 15mm thick Lower contact gradational		57976	296.0	296.5	0.5	X			11	X	30	40	125	2550	3.70	55

486073

ELECTROLYTIC ZINC CO. OF A'ASIA LTD.
ROSEBERY – TASMANIA

DIAMOND DRILL CORE RECORD

HOLE No. ARP 239
Sheet 22.

A 11241

FROM	TO	ROCK DESCRIPTION	MINERALISATION	SAMPLE No.	8-13 FROM	14-19 TO	Sample Length	Sn	W	Au	As	Ag	Cu	Pb	Zn	Mn	Fe %	Cr
								ASSAY DATA										
297.0	298.3	Conglomerate Unsorted, polymict. Mudstone matrix up to clasts of 80mm Tuffaceous Wacke, Chert, Siltstone are main clasts. Lower contact irregular about 50°		57977	297.5	298.0	0.5	x			6	0.5	45	35	160	5050	4.95	50
298.3	299.9	Dark grey massive Fg and f-m g. Quartz-Lithic Wacke. Thin carbonate veins. Suggestion of overall fining in grainsize downwards implying a down-hole facing. Lower contact ~25°																
299.9	302.4	Inter-bedded Grey mg Quartz Lithic Wacke and black Siltstone. Wacke beds are irregular and disrupted with ?rip off clasts of wacke in siltstone. Thin carbonate veins are concentrated in the wacke beds. 300.8 - 300.9 Quartz veins ~15% of core. 301.5 - 302.4 Wacke forms about 85% of core with thin interbeds of siltstone. Lower contact sharp 55°	2% f.g disseminated Pyrite in the wacke beds.	57978	300.0	300.5	0.5	x			13	0.5	20	10	125	1410	2.30	105
302.4	303.0	Graded Unit. Grades downwards from a Quartz Granule Conglomerate with clasts up to 3mm, into a grey m.g Quartz Lithic Wacke. Thin carbonate veins. Implies downhole facing	1% f.g. disseminated Pyrite															
303.0	303.5	Interbedded Wacke and Siltstone as per 299.9 - 302.4m																

486074

ELECTROLYTIC ZINC CO. OF A'ASIA LTD.
ROSEBERY – TASMANIA

DIAMOND DRILL CORE RECORD

HOLE No. RRP 239
Sheet 23

A 11241

FROM	TO	ROCK DESCRIPTION	MINERALISATION	SAMPLE No.	8-13 FROM	14-19 TO	Sample Length	Sn	W	Au	As	Ag	Cu	Pb	Zn	Mn	Fe %	Cr
303.5	305.9	Conglomerate as per 297.0 - 298.3 304.6 - 304.9 Strong carbonate veining. Veins 50% of rock. 305.1 - 305.2 Strongly silicified and quartz-carbonate veined Lower contact gradational.		57979	304.0	304.5	0.5	X			13	0.5	20	X	75	2200	4.20	80
305.9	306.8	Breccia Black Siltstone contains strongly carbonated clasts and ?beds of wacke. Core broken along a chloritic cleavage @ 10° Tectonic Breccia or Possible Fault Zone.	3% Pyrite as disseminations and very small stringers mostly associated with carbonate.	57980	306.0	306.5	0.5	X			20	0.5	45	35	70	5510	6.10	50
306.8	309.1	Conglomerate as per 297.0 - 298.3																
309.1	313.8	Interbedded Massive Siltstone and f-mg. Lithic Wacke. Wacke content increases downwards. Thin anastomosing carbonate veins. Lower contact is 100mm zone of strong carbonate veining at about 20°		57981	310.0	310.5	0.5	X			36	0.5	40	5	75	1480	2.60	30
313.8	315.5	Sedimentary Breccia Grey Siltstone matrix contains rounded and lensoid clasts of yellow totally carbonated wacke. Weak penetrative cleavage at 10°																
315.5	328.35	Sedimentary Breccias essentially similar to 176.6 - 188.4. The fabric is less evenly bimodal. There are areas where Siltstone is dominant with	Trace to 1% Pyrite throughout but is concentrated in wacke zones especially with carbonate veining	57982	316.0	316.5	0.5	X			21	0.5	35	5	40	2510	3.20	100

486075

ELECTROLYTIC ZINC CO. OF A'ASIA LTD.
ROSEBERY – TASMANIA

DIAMOND DRILL CORE RECORD

HOLE No. RRP 239
Sheet 24

A 11241

FROM	TO	ROCK DESCRIPTION	MINERALISATION	SAMPLE No.	8-13 FROM	14-19 TO	Sample Length	Sn	W	Au	As	Ag	Cu	Pb	Zn	Mn	Fe %	Cr
		few clasts and areas where grey f-mg																
		Tuffaceous Lithic Wacke' occupies almost																
		all the core with only thin whispy																
		intercalations of Siltstone and Mudstone. Thin																
		carbonate veins occur throughout but is																
		concentrated in wacke' zones especially																
		appear to have brittle fractured.																
		315.6 – 316.5 Wacke' dominant phase																
		316.0 – 316.1 Quartz carbonate vein at ~ 40°																
		317.0 – 317.5 Wacke' dominant phase																
		318.3 – 319.1 Black mudstone dominant phase.																
		319.1 – 319.8 Very strong yellow weathering	Up to 2% disseminated Pyrite															
		carbonate veins Veins 60% of rock																
		320.4 – 321.2 Wacke' dominant phase																
		321.9 – 323.3 " " "																
		323.1 – 323.3 Stockwork of thin carbonate veins	2% disseminated Pyrite + trace Pyrrhotite	57983	323.0	323.5	0.5	x			7	x	30	x	50	2650	2.95	80
		324.4 – 324.9 Wacke' dominant																
		325.3 – 325.7 " "																
		326.3 – 326.8 " "																
		327.6 – 328.35 " " Core fracturing																
		along thin black siltstone zones																
		mostly 10° – 25° to core.																
328.35	328.5	Massive white quartz and cream carbonate																
		Vein Contacts slightly irregular about 75°																
328.5	333.25	Grey mg Tuffaceous Lithic Wacke' with																
		thin interbeds of black chloritic Mudstone																
		units show cleavage at 10° and slickensides		57984	330.0	330.5	0.5	11			21	0.5	10	20	50	5200	2.95	110
		Thin carb veins.																

ELECTROLYTIC ZINC CO. OF A'ASIA LTD.
ROSEBERY – TASMANIA

DIAMOND DRILL CORE RECORD

HOLE No. RRP 239
Sheet 25

A 11241

FROM	TO	ROCK DESCRIPTION	MINERALISATION	SAMPLE No.	8-13 FROM	14-19 TO	Sample Length	Sn	W	Au	As	Ag	Cu	Pb	Zn	Mn	Fe %	Cr
		331.6-332.4 Bedding sub-parallel to core 331.6-333.25 Core becomming increasingly broken along chloritic mudstone cleavages																
333.25	333.5	White Quartz and yellow Carbonate Vein @ 35° ? main locus of fault plane																
333.5	336.1	Breccia. Dark grey Mudstone is matrix to densely packed clasts of brownish carbonated Wacke'. Carbonate and quartz veins and clasts. Some veins are broken and disrupted. May be an original Sedimentary Breccia but has Tectonic Brecciation superimposed		57985	335.0	335.5	0.5	x			55	0.5	35	15	85	6000	6.30	30
336.1	336.3	White Quartz and yellow Carbonate vein. Contacts broken core.																
336.3	341.6	Finely interbedded grey Siltstone and f.g Lithic Wacke'. Bedding and chloritic cleavage are both sub-parallel to 20° to core. Rare thin carbonate veins. 336.3 - 336.8 Broken core 338.7 - 339.3 " " Lower contact gradational	Trace Pyrite in rare stringers	57986	340.0	340.5	0.5	x			23	x	35	5	70	830	4.25	55
341.6	354.7	Rock essentially as above with bedding and cleavage less well developed and an increasing m.g Wacke' content. The major	Rare traces of disseminated Pyrite															

486077

ELECTROLYTIC ZINC CO. OF A'ASIA LTD.
ROSEBERY – TASMANIA

DIAMOND DRILL CORE RECORD

HOLE No. RRP 239
Sheet 26

A 11241

FROM	TO	ROCK DESCRIPTION	MINERALISATION	SAMPLE No.	8-13 FROM	14-19 TO	Sample Length	Sn	W	Au	As	Ag	Cu	Pb	Zn	Mn	Fe %	Cr
		difference is a very strong carbonate replacement of, initially the wacke' phase and then the entire rock. Carbonate veins also abundant. Carbonate is all yellow weathering		57987	345.0	345.5	0.5	X			13	X	45	5	65	870	4.00	65
		348.0 – 354.5 Rock is about 90% carbonate. Lower contact gradational.		57988	350.0	350.5	0.5	X			9	0.5	20	15	75	2100	4.00	30
354.7	355.6	Dark grey Micaceous Siltstone with abundant thin carbonate veins Lower contact irregular																
355.6	359.7	Greenish-grey f.g. massive, reworked Felsic Lithic Tuff. with cream weathering carbonate veins and clots. Lower contact 20°		57989	356.0	356.5	0.5	X			12	1.0	50	X	85	1200	6.05	95
359.7	361.4	Interbedded dark grey Siltstone, pale grey m.g. Lithic Wacke, and f.g. Reworked Tuff. Bedding angle 15° Lower contact 15°		57990	360.0	360.5	0.5	X			16	0.5	165	X	120	1250	6.00	70
361.4	366.8	Reworked Tuff as per 355.6 – 359.7 362.5 – 362.7 12 mm thick bed of pale pink Mudstone, possibly a f.g. Pelitic Ash at 10° 363.4 – 363.9 Sub-parallel band of interbedded black chloritic Mudstone. Lower Contact Irregular.																
366.8	371.2	Sedimentary Mud-flow style Breccia. Dark grey Siltstone matrix with clasts and		57991	367.0	367.5	0.5	X			4	X	90	10	80	2600	5.65	50

486078

ELECTROLYTIC ZINC CO. OF A'ASIA LTD.
ROSEBERY – TASMANIA

DIAMOND DRILL CORE RECORD

HOLE No. RRP 239
Sheet 27

A 11241

FROM	TO	ROCK DESCRIPTION	MINERALISATION	SAMPLE No.	8-13 FROM	14-19 TO	Sample Length	Sn	W	Au	As	Ag	Cu	Pb	Zn	Mn	Fe %	Cr
		disrupted beds of m.g. Tuffaceous Wacke'																
		and f.g. Lithic Arenite. Clast fraction																
		is strongly carbonated. Yellow-weathering																
		carbonate veins also abundant.																
371.2	372.8	Reworked Tuff as per 355.6 - 359.7																
		with contorted ? xenoliths, or ? rip-off																
		clasts of black Mudstone. Contacts																
		irregular.																
372.8	374.5	Sedimentary Breccia as per 366.8 - 371.2		57992	373.5	374.0	0.5	X			13	0.5	140	30	105	2050	5.75	60
		but less strongly carbonated.																
374.5	382.0	Reworked Tuff as per 355.6 - 359.7 with																
		patches of interbedded finer grained																
		sediments																
		375.2 - 376.2 Siltstone and f.g. Wacke'																
		interbedded and brecciated with																
		the Tuff. Strong carbonate veins and																
		clots.																
		376.9 - 378.0 Siltstone and f.g. Wacke' interbedded																
		and weakly brecciated with																
		reworked tuff. Minor carbonate veins		57993	379.0	379.5	0.5	X			16	0.5	125	10	85	1250	610	95
		380.0 - 380.1 Quartz - carbonate annealed Breccia																
		381.1 - 381.3 Interbedded Siltstone and Wacke'																
		Bedding angle 30°																
382.0	383.9	Breccia. Similar to 372.8 - 374.5 but has																
		an overprinted Tectonic Brecciation. Carbonate		57994	382.5	383.0	0.5	X			16	1.0	55	X	65	6900	5.90	50
		veins and clots are broken in places																

ELECTROLYTIC ZINC CO. OF A'ASIA LTD.
ROSEBERY – TASMANIA

DIAMOND DRILL CORE RECORD

HOLE No. RRP 239
Sheet 28
A 11241

FROM	TO	ROCK DESCRIPTION	MINERALISATION	SAMPLE No.	8-13 FROM	14-19 TO	Sample Length	Sn	W	Au	As	Ag	Cu	Pb	Zn	Mn	Fe %	Cr
		and some clasts are more angular.																
		383.3 – 383.5 Reworked Tuff as per 355.6 – 359.7																
383.9	387.3	Interbedded dark grey to black Mudstone,	Pyrite and Pyrrhotite occur in															
		thin bands of pale pinkish grey Siltstone	blebs and small stringers Overall															
		(possibly a pelitic ash) and greenish-grey m.g.	content less than 1%.	57995	385.0	385.5	0.5	x			56	1.5	260	35	100	1.20%	7.45	65
		Tuffaceous Wacke Sparse carbonate veins																
		384.3 – 384.7 Bedding 20°																
		386.7 – 387.3 Weak breccia texture with	Pyrite + minor pyrrhotite in stringers															
		chloritic veining	3%															
		Lower Contact 35°																
387.3	390.2	Greenish grey m-cg massive Tuffaceous																
		Wacke																
		389.0 – 390.2 Interbeds of pale pinkish grey		57996	389.0	389.5	0.5	x			58	0.5	15	x	90	5500	6.85	110
		Siltstone (? pelitic ash) and thin																
		carbonate veining																
		Lower contact broken core about 60°																
390.2	393.2	Sedimentary Breccia as per 176.6 – 184.4.	2% Pyrite in stringers															
		Weakly sheared/cleaved throughout increasing																
		in intensity downwards @ 15°																
		392.7 – 393.2 Decreasing clast content		57997	391.5	392.0	0.5	x			19	0.5	30	x	30	780	2.05	60
		Rock becomes almost totally																
		Mudstone/Siltstone																
		Lower contact core broken – weak banding																
		at 20°																
393.2	394.7	Slightly greenish-grey f-mg Quartz Lithic	Sulphides increasing downwards	57998	394.0	394.5	0.5	x			6	0.5	10	x	90	1250	2.95	90
		Wacke with thin interbeds of dark	from less than 1% stringers																

ELECTROLYTIC ZINC CO. OF A'ASIA LTD.
ROSEBERY – TASMANIA

DIAMOND DRILL CORE RECORD

HOLE No. RRP 239
Sheet 29

A 11241

FROM	TO	ROCK DESCRIPTION	MINERALISATION	SAMPLE No.	8-13 FROM	14-19 TO	Sample Length	Sn	W	Au	As	Ag	Cu	Pb	Zn	Mn	Fe %	Cr
		grey Siltstone. Interbeds usually show slump contorted contacts and microfaulting. Weak jointing from sub-parallel to 20°. Lower contact irregular about 20°	of Pyrite to over 2%. 394.4 – 394.7. 5% Pyrite + minor Pyrrhotite in a thin stringer stockwork															
394.7	397.5	Sedimentary Breccia as per 390.2 – 393.2 with shearing/cleavage more intense. 394.7 – 395.7 Core very broken, mostly along sub-parallel fractures	Variable stringers of pyrite with minor pyrrhotite. Average about 1%	57999	397.0	397.4	0.4	x			22	1.0	10	x	20	490	1.85	30
			397.4 – 397.5 5% Pyrite in stringers	S57902	397.4	397.9	0.50	16	x	x	1800	x	135	5	20	1200	1.90	75
397.5	397.9	Sedimentary Breccia as per above but with silicification of the clast fraction and some of the matrix. Contact gradational.	5% Pyrite in stringers and blebs.															
397.9	398.3	Dark grey to black chloritic, cleaved and laminated Mudstone/Siltstone. Lamination and cleavage @ 10°. Thin quartz veinlets towards base. Contact gradational	1% Pyrite as coatings on cleavage surfaces.	S57903	397.9	398.3	0.40	14	x	x	150	x	20	x	15	190	1.20	35
398.3	399.0	White/dark grey mottled silicified Breccia as per 397.5 – 397.9	2–5% Pyrite in stringers. Locally more abundant.	S57904	398.3	399.0	0.70	4	x	0.08	280	3	55	10	15	160	1.65	75
399.0	399.35	White totally silicified and quartz-veined rock.	5% Pyrite in stringers.	S57905	399.0	399.35	0.35	x	x	0.07	250	2	80	x	15	360	1.15	150
399.35	400.40	Silicified Breccia as per 398.3 – 399.0	5% Pyrite in stringers locally more abundant.	S57906	399.35	399.70	0.35	11	x	0.07	2200	64	195	155	20	265	3.10	85
			399.55 40mm zone of 30% Pyrite	S57907	399.70	400.40	0.70	24	x	0.04	2100	52	75	140	15	230	1.25	130

ELECTROLYTIC ZINC CO. OF A'ASIA LTD.
ROSEBERY — TASMANIA

DIAMOND DRILL CORE RECORD

HOLE No. RRP 239
Sheet 30

A 11241

FROM	TO	ROCK DESCRIPTION	MINERALISATION	SAMPLE No.	8-13 FROM	14-19 TO	Sample Length	Sn	W	Au	As	Ag	Cu	Pb	Zn	Mn	Fe %	Cr
400.4	400.7	Massive Sulphide. Pyrite + Pyrrhotite with inclusions of silicified breccia.	65% Pyrite + Pyrrhotite.	557908	400.4	400.7	0.30	39	x	0.13	2.15%	17	1250	15	25	620	7.05	105
400.7	401.4	Strongly silicified Breccia. Silicification decreasing downwards	Average 10% Pyrite + Pyrrhotite in stringers, blebs and veins. 400.9 50 mm vein of massive Pyrrhotite + minor pyrite. 401.3 - 401.4 50% Pyrite + Pyrrhotite in an irregular vein.	557909	400.7	401.4	0.70	22	x	0.06	1.85%	193	455	390	15	190	3.30	65
401.4	402.2	Weakly silicified Sedimentary Breccia as per 176.6 - 188.4. Weak penetrative cleavage at 10°	2-5% Pyrite + minor pyrrhotite as stringers and blebs.	557910	401.4	402.2	0.80	11	x	0.03	950	5.5	40	25	15	75	1.15	25
402.2	403.3	Pale grey f-mg strongly silicified Lithic Wacke with rare thin brecciated interbeds of black Siltstone	10% Pyrite + Pyrrhotite in stringers and small veins.	557911	402.2	402.9	0.70	27	x	0.18	2.10%	84	125	520	15	495	2.65	80
				557912	402.9	403.3	0.40	x	x	0.60	850	2	60	10	15	455	1.45	235
403.3	404.15	Moderately Silicified Sedimentary Breccia as per 398.3 - 399.0	403.3 - 403.9 Pyrite + minor Pyrrhotite decreasing downwards from 10% to 5% in stringers.	557913	403.3	403.9	0.60	16	x	0.04	520	5	50	50	25	265	1.80	75
			403.9 - 404.15 40% Pyrite + Pyrrhotite in stringers and veins	557914	403.9	404.15	0.25	72	x	0.07	640	19	235	200	20	750	4.05	55
404.15	404.5	Interbedded pale yellow f.g. sericitic Sandstone and pale grey f.g. Wacke. ?Bedding 15°	15% Pyrrhotite + minor Pyrite + trace chalcopyrite and arsenopyrite as stringers and veins semi-conformable with ?bedding at 15°.	557915	404.15	404.5	0.35	26	11	0.13	2300	1.5	335	30	40	1250	5.50	65

ELECTROLYTIC ZINC CO. OF A'ASIA LTD.
ROSEBERY – TASMANIA

DIAMOND DRILL CORE RECORD

HOLE No. RRP 239
Sheet 31

A 11241

FROM	TO	ROCK DESCRIPTION	MINERALISATION	SAMPLE No.	8-13 FROM	14-19 TO	Sample Length	Sn	W	Au	As	Ag	Cu	Pb	Zn	Mn	Fe %	Cr
404.5	405.3	Dark grey Siltstone to fg Lithic Arenite interbedded with greenish grey mg weakly chloritic Lithic Wacke. Bedding sub-parallel to core. 404.5 – 404.7 Weakly brecciated. 405.0 – 405.3 Weakly brecciated and brown weathering carbonate replaces some of the Lithic Wacke. Lower contact gradational.	Sulphides decrease downwards from 10% stringers of Pyrite with disseminated patches of Arsenopyrite needles, to 1% disseminated Pyrite.	557916	404.5	405.3	0.08	14	15	0.10	9200	1.0	90	15	95	6000	11.00	75
405.3	406.6	Breccia. Dark blue-grey f-mg Tuffaceous Wacke, weakly chloritic with a weak Tectonic Breccia fabric and broken white carbonate veins. 405.5 – 406.2 Carbonate veining and replacement strongest. About 30% of core is carbonate. Lower contact gradational.	Sulphides variable. Average about 2% Pyrite stringers.	58000	405.3	406.0	0.7	8			15	0.5	40	15	90	1.35%	8.40	90
406.6	407.9	Grey-green Carbonaceous Dolomitic Mudstone. Soft-sediment slumped. Weakly carbonated. 407.6 Sample No 43870 Thin Section		58001	407.0	407.5	0.5	x			99	0.5	50	x	90	4800	5.80	115
407.9	409.3	Tectonic Breccia. Mostly Tuffaceous Wacke with some finer grained sediment. Strongly brecciated and annealed by white carbonate veins which form 70% of rock. Lower contact irregular ~ 40°																
409.3	412.5	Pale pinkish-grey to pale greenish yellow																

ELECTROLYTIC ZINC CO. OF A'ASIA LTD.
ROSEBERY – TASMANIA

DIAMOND DRILL CORE RECORD

HOLE No. R.R.P. 239
Sheet 32 A 11241

FROM	TO	ROCK DESCRIPTION	MINERALISATION	SAMPLE No:	8-13 FROM	14-19 TO	Sample Length	Sn	W	Au	As	Ag	Cu	Pb	Zn	Mn	Fe %	Cr
		irregularly laminated very fine grained bleached sericitic Mudstone. Laminations generally sub-parallel to core but show abundant microfaulting and small slump breccia textures. Fine stockwork of thin (1mm) carbonate-chlorite veinlets. Lower contact gradational. 409·4 Sample No 43871 - Thin Section		58002	410·0	410·5	0·5	x			14	x	40	x	55	740	3·60	40
412·5	415·6	Pale brownish green fg. strongly altered Tuff or Tuffaceous Wacke. Weak bedding at 10° parallels a weak cleavage. Rare thin carbonate veins. Lower contact irregular. 414·0 Sample No. 43872 · Thin Section.	Trace fg. Pyrite.	58003	413·0	413·5	0·5	x			1	x	15	x	90	2200	5·65	45
415·6	417·0	Pale greenish yellow and pale grey Mudstone as per 409·3 – 412·5. Laminations sub parallel to core. 415·6 – 415·9 Breccia composed of Mudstone lithologies in a weakly chloritic matrix with minor carbonate veinlets																
417·0	418·4	Sedimentary Breccia. Lithologies essentially as above but with a contorted ? slump breccia texture which decreases downwards. 418·3 – 418·4 Quartz - Carbonate vein. 30mm thick @ 20°		58004	417·0	417·5	0·5	x			4	0·5	40	20	90	1850	6·50	45

486084

ELECTROLYTIC ZINC CO. OF A'ASIA LTD.
ROSEBERY – TASMANIA

DIAMOND DRILL CORE RECORD

HOLE No. RRP 239
Sheet 33

A 11241

FROM	TO	ROCK DESCRIPTION	MINERALISATION	SAMPLE No.	8-13 FROM	14-19 TO	Sample Length	Sn	W	Au	As	Ag	Cu	Pb	Zn	Mn	Fe %	Cr
								ASSAY DATA										
418.4	420.5	Pale green Altered Tuff as per 412.5 -415.6																
420.5	428.6	Laminated sericitic Mudstone as per 409.3 - 412.5, interbedded with pale green f.g Tuffaceous Wacke. Lamination and bedding frequently contorted and microfaulted. Weak cleavage 10-15°	Pyrite as irregular stringers average less than 1%	58005	424.0	424.5	0.5	x			4	0.5	20	20	105	1350	7.95	45
		420.5 - 420.8 Sedimentary ?slump Breccia.																
		420.8 - 421.5 Core broken along cleavages and veined by irregular carbonate veins and clots. Looks like weak Tectonic Brecciation.																
		423.1 - 424.2 Weak Tectonic Breccia, annealing with carbonate veins and clots																
		425.0 - 426.5 Brown-weathering carbonate replacement of f.g. Lithic Arenite																
		421.0 Bedding angle 25°																
		424.6 " " 20°																
		426.7 " " 10°																
		427.9 - 428.3 Breccia with carbonate veins and clots.																
428.6	429.1	Contact zone between Sediment and ?Tuff Irregular ?normal sedimentary contact running sub parallel to core.																
429.1	430.0	Grey f.g altered porphyritic Felsic Vitric Tuff. A sericitised - chloritised groundmass contains ? phenocrysts.																

ELECTROLYTIC ZINC CO. OF A'ASIA LTD.
ROSEBERY – TASMANIA

DIAMOND DRILL CORE RECORD

HOLE No. RRP 239
Sheet 34

A 11241

FROM	TO	ROCK DESCRIPTION	MINERALISATION	SAMPLE No.	8-13 FROM	14-19 TO	Sample Length	Sn	W	Au	As	Ag	Cu	Pb	Zn	Mn	Fe %	Cr
		? porphyroblasts up to 1.5mm with a grey		58006	429.5	430.0	0.5	x			4	x	105	10	125	1150	8.65	80
		sericitic core and a dark green chloritic																
		rim. These may be ?altered lapilli or ? vesicles																
		Weak banding may be bedding or may be																
		due to weak shearing.																
		429.3 Sample No. 43873 - Thin Section																
		429.6 - 429.8 Breccia. Clasts of ?Tuff,	5% Pyrite in stringers.															
		sericitic Mudstone, and carbonate																
		replaced f.g. Wacke' + carbonate																
		veins																
		lower contact is carbonate-quartz vein @ 15°																
430.0	435.4	Brownish green m.g. Lithic Wacke'																
		Orange-brown weathering carbonate replaces																
		the framework grains. Occasional irregular		58007	433.0	433.5	0.5	x			2	2.0	90	5	90	710	6.25	100
		interbeds and clasts of grey cherty																
		Siltstone which has a fine stockwork																
		of carbonate veins less than 1mm wide																
		431.7 - 432.0 Breccia texture with carbonate-quartz veins																
		433.5 - 433.7 " " " " " "																
435.4	443.5	Altered Leucogabbro or Diorite																
		A green f.g. groundmass hosts pale																
		pink irregular ragged 'phenocrysts' of																
		ankeritic carbonate totally replacing		58008	440.0	440.5	0.5	x			3	x	65	10	120	1150	6.35	110
		pyroxene. Pale chlorite veins and patches																
		and fibrous calcite veins.																
		439.5 Sample No 43874. Thin Section																
		435.4 - 435.7 Core very broken. Dark green																
		finer grained more chloritic																

486086

ELECTROLYTIC ZINC CO. OF A'ASIA LTD.
ROSEBERY – TASMANIA

DIAMOND DRILL CORE RECORD

HOLE No. RRP 239
Sheet 35

A 11241

FROM	TO	ROCK DESCRIPTION	MINERALISATION	SAMPLE No.	8-13 FROM	14-19 TO	Sample Length	Sn	W	Au	As	Ag	Cu	Pb	Zn	Mn	Fe %	Cr
		section ? Possible chilled margin 443.2 - 443.5 More chloritic finer grained zone similar to upper contact																
443.5	446.8	Green grey f-mg Trachytic Lithic Tuff. Liths are sericitised feldspar rich volcanics and lesser dark grey mudstone. Very little matrix may imply reworking. Weakly chloritic and has thin chlorite veinlets. minor thin carbonate veins 444.8 - 445.3 Weak breccia zone with carbonate veins and weak silicification. Lower contact sheared broken core along carbonate veins at 25°	5% c.g. Pyrite in carbonate veins on lower contact.	58009	445.0	445.5	0.5	x			5	0.5	20	15	120	1800	6.50	195
446.8	448.3	Green f-mg Vitric Lithic Tuff. Intermediate to mafic composition Abundant small mudstone liths, degraded feldspathic volcanic liths, in a chlorite-sericite-carbonate matrix. Disrupted interbeds of grey-green m.g 'Tuffaceous Wacke'. Thin carbonate-quartz veins. Weak cleavage 10° lower contact 35° 448.0 Sample No 43875 · Thin Section.		58010	447.0	447.5	0.5	x			180	0.5	165	15	120	3000	8.25	520
448.3	449.6	Pale yellowish-green Sedimentary Breccia Principally sericitic Siltstone but with clasts of 'Tuffaceous Wacke' and Tuff and rare pink f.g. Felsic Volcanics. Quartz																

486087

ELECTROLYTIC ZINC CO. OF A'ASIA LTD.
ROSEBERY – TASMANIA

DIAMOND DRILL CORE RECORD

HOLE No. RRP 239

Sheet 36

A 11241

FROM	TO	ROCK DESCRIPTION	MINERALISATION	SAMPLE No.	8-13 FROM	14-19 TO	Sample Length	Sn	W	Au	As	Ag	Cu	Pb	Zn	Mn	Fe %	Cr
		veins and clots Weak cleavage ~10°		58011	449.0	449.5	0.5	x			7	0.5	90	15	190	2700	5.35	320
		448.3 – 448.7 Quartz + minor carbonate Veins																
		at 15° are 25% of rock																
		448.7 – 448.8 Bed or Large clast of pale																
		grey massive Siltstone @ 35°																
		Lower contact 35°																
449.6	450.8	Grey-green f-mg massive (crystal) Lithic																
		Tuff Intermediate Black mudstone																
		liths and degraded feldspathic volcanic																
		liths. Weakly chloritic.																
		449.6 – 449.9 Finer grain size																
		Lower contact 40°																
450.8	451.15	Pale greenish-grey massive f.g. Lithic																
		Arenite with stockwork of thin chlorite																
		veinlets Lower contact irregular about																
		40°																
451.15	455.8	Mg. Lithic Tuff as per 449.6 – 450.8. Liths																
		up to 2mm.		58012	454.0	454.5	0.5	x			3	x	55	15	150	1350	7.10	450
		451.7 – 452.4 Strong quartz veining at																
		25°. Quartz up to 60% of rock																
		? Possible Fault Zone.																
		Lower contact is 8mm Quartz vein @ 15°																
455.8	464.0	Pale green f.g. Lithic Tuff as per 449.6 –																
		450.8 but grainsize is much finer Liths		58013	460.0	460.5	0.5	x			6	0.5	85	20	185	1650	7.90	435
		generally maximum 0.5mm.																
		457.9 – 459.0 Graded unit Increasing grainsize																

48608S

ELECTROLYTIC ZINC CO. OF A'ASIA LTD.
ROSEBERY – TASMANIA

DIAMOND DRILL CORE RECORD

HOLE No. RRP 239
Sheet 37

A 11241

FROM	TO	ROCK DESCRIPTION	MINERALISATION	SAMPLE No.	8-13 FROM	14-19 TO	Sample Length	Sn	W	Au	As	Ag	Cu	Pb	Zn	Mn	Fe %	Cr
		downwards implies up-hole facing. 459.0-459.35 Weakly brecciated zone with quartz veins and clots. 462.6-462.8 Strong Quartz Veining. 462.8-464.0 Increased grainsize. Lithics up to 1mm. Lower contact 10°	1% F.g. disseminated Pyrite.															
464.0	465.5	Pale green f-mg Tuffaceous Lithic Wacke. Irregular quartz veins and fine chloritic veinlets. Lower contact 20°		58014	464.5	465.0	0.5	x			2	x	175	40	995	1750	6.55	250
465.5	468.0	Dark green-grey f-mg Lithic Tuff, Intermediate. Close packed feldspathic volcanic liths in a chloritic groundmass. 466.5-468.0 Gradual colour change with increasing carbonation and increasing mudstone lithic content. Lower contact shear @ ~25° on broken core.		58015	467.0	467.5	0.5	x			16	0.5	160	10	170	1150	8.40	450
468.0	468.25	? Fault Zone. Core very broken. Fragments of brecciated Tuffaceous 'Wacke' and milky white vein quartz.																
468.25	469.3	Grey f-mg volcanic Lithic Wacke. Thin irregular quartz veins. Lower contact 25°																
469.3	479.1	Pale green f-mg Tuffaceous Wacke with abundant dark green chloritic Mudstone liths up to 1mm in size.		58016	472.0	472.5	0.5	x			14	x	80	10	145	2300	7.40	380

486089

ELECTROLYTIC ZINC CO. OF A'ASIA LTD.
ROSEBERY — TASMANIA

DIAMOND DRILL CORE RECORD

HOLE No. ARP 239
Sheet 38

A 11241

FROM	TO	ROCK DESCRIPTION	MINERALISATION	SAMPLE No.	8-13 FROM	14-19 TO	Sample Length	ASSAY DATA Sn	W	Au	As	Ag	Cu	Pb	Zn	Mn	Fe %	Cr
		Weak cleavage 10° Rare thin quartz veins 477.4 - 478.6 Disrupted interbeds of pale grey very f.g. Lithic Arenite Bedding 10° Lower contact diffuse ~5°	475.5 - 479.1 Pyrite ~1% in thin (0.5mm) veinlets	58017	478.0	478.5	0.5	x			3	x	185	10	150	740	8.60	320
479.1	482.7	Pale yellowish grey Lithic Tuff. Feldspathic volcanic liths are weakly carbonated. plus dark grey mudstone liths. Weak cleavage 10° Lower contact 10°.		58018	481.0	481.5	0.5	x			26	0.5	90	25	150	1650	7.75	490
482.7	484.0	Dark grey f.g. Lithic Arenite. Very weak soft sediment brecced textures. Lower contact irregular		58019	483.0	483.5	0.5	x			3	x	130	15	1650	1600	5.60	240
484.0	486.3	Sedimentary Breccia Dark grey Mudstone, pale green Tuffaceous Wacke' and grey-green Lithic Tuff in variably slumped and contorted beds and/or clasts. 485.5 - 486.3 Increasing sub-parallel carbonate - quartz veins Lower contact broken core.		58020	485.0	485.5	0.5	x			6	0.5	110	15	230	1100	7.05	255
486.3	486.4	Massive white Quartz Vein @ ~80°	5% c.g. Pyrite															
486.4	487.7	Dark grey poorly laminated Lithic Wacke and Mudstone Banding 15° Lower contact 35°	3% f.g. disseminated Pyrite															
487.7	488.9	Pale yellow f-mg. Lithic Wacke', weakly																

486090

ELECTROLYTIC ZINC CO. OF A'ASIA LTD.
ROSEBERY – TASMANIA

DIAMOND DRILL CORE RECORD

HOLE No. RRP 239
Sheet 39

A 11241

FROM	TO	ROCK DESCRIPTION	MINERALISATION	SAMPLE No.	8-13 FROM	14-19 TO	Sample Length	Sn	W	Au	As	Ag	Cu	Pb	Zn	Mn	Fe %	Cr
		carbonated. Frequent mudstone lithic																
		fragments up to 1mm and occasional																
		larger ? rip-off clasts of mudstone																
		up to 25 mm Lower contact ~25°																
		masked by quartz - carbonate veins.																
488.9	490.9	Dark grey Wacke' and Mudstone as per 486.7-	3-5% Pyrite in stringers and	58021	489.0	489.5	0.5	X			12	x	170	20	100	740	6.25	80
		487.7 but less well laminated	disseminations															
		Lower contact 40°																
490.9	495.4	Pale yellow mg. Lithic Wacke' as per 487.7	1-2% f.g. disseminated Pyrite															
		- 488.9																
		492.2 - 492.8 Disrupted interbeds of grey		58022	493.0	493.5	0.5	X			3	X	100	10	145	1700	8.60	375
		f.g. Lithic Tuff and dark grey																
		Siltstone																
		Lower contact 15°																
495.4	498.0	Sedimentary Breccia. Disrupted and	3% fg. Pyrite as disseminations															
		contorted bands and clasts of pale	and stringers associated with	58023	496.0	496.5	0.5	X			33	0.5	125	40	140	990	7.85	300
		grey f-mg Lithic Wacke' containing	thin carbonate veins.															
		wispy mudstone liths. and dark																
		grey Siltstone and very f.g. Sandstone																
498.0	499.5	Lithologies as above but less brecciated	3% fg. disseminated Pyrite															
		Bedding is irregular but mostly about 25°																
		498.5 - 499.5 Weak Tectonic Breccia with		58024	498.5	499.0	0.5	X			36	0.5	85	20	90	1800	8.25	210
		carbonate veins																
		498.3 - 499.1 Stronger Tectonic Breccia with	5% Pyrite as fg. disseminations															
		more abundant carbonate-quartz veins	and small stringers.															

486091

ELECTROLYTIC ZINC CO. OF A'ASIA LTD.
ROSEBERY – TASMANIA

DIAMOND DRILL CORE RECORD

HOLE No. RRP 239
Sheet 40

A 11241

FROM	TO	ROCK DESCRIPTION	MINERALISATION	SAMPLE No.	8-13 FROM	14-19 TO	Sample Length	Sn	W	Au	As	Ag	Cu	Pb	Zn	Mn	Fe %	Cr
499.5	499.9	Pale slightly yellowish grey f-mg Lithic Wacke with numerous ? rip-up clasts of black mudstone up to 8 mm long and 3mm wide. Lower contact 15°	1-2% Pyrite in thin stringers															
499.9	500.8	Grey massive f.g. Lithic Wacke. Thin irregular carbonate – quartz veins. 500.0 – 500.3 Irregular band of pale brown – grey f.g. Felsic Lithic Tuff with mudstone liths. Lower contact 15°	5% Pyrite as disseminations and thin stringers	58025	500.0	500.5	0.5	x			13	x	90	10	120	1600	8.80	310
500.8	501.4	Breccia. Pale grey m-cg Tuffaceous Wacke with 25% clasts (? rip-up clasts) of black Mudstone. Lower contact 25°	3% f.g disseminated Pyrite															
501.4	502.4	Graded unit. Dark grey f.g. massive Lithic Wacke grades down into pale yellow-grey mg. Tuffaceous Lithic Wacke with mudstone liths – ? rip-off clasts. Implies up-hole facing. Lower contact 30°	5% Pyrite as disseminations and small stringers.	58026	501.5	502.0	0.5	x			7	x	100	15	110	1650	8.05	110
502.4	503.0	Interbedded Dark grey f.g. massive Lithic Wacke and pale yellowish grey f-mg Lithic Wacke with occasional mudstone liths. Grading	1-2% Pyrite in thin stringers															

486092

ELECTROLYTIC ZINC CO. OF A'ASIA LTD.
ROSEBERY – TASMANIA

DIAMOND DRILL CORE RECORD

HOLE No. RRP 239
Sheet 41.

A 11241

FROM	TO	ROCK DESCRIPTION	MINERALISATION	SAMPLE No.	8-13 FROM	14-19 TO	Sample Length	Sn	W	Au	As	Ag	Cu	Pb	Zn	Mn	Fe %	Cr
		through unit implies up-hole facing lower contact irregular																
503.0	503.5	Breccia as per 500.8 – 501.4. lower contact 35°	3% fg disseminated Pyrite															
503.5	503.7	Thin fault plane running parallel to core displaces contact 200mm on either side of core.																
503.7	508.4	Interbedded dark grey f.g. lithic Wacke, pale grey f-mg lithic Wacke and rare thin beds of yellow fg Reworked Lithic Tuff with mudstone liths. General carbonate replacement of coarser lithic grains. Irregular cross-cutting carbonate veins.	Pyrite variable up to 5% in stringers and blebs mostly associated with carbonate veins.	58027	505.5	506.0	0.5	X			60	X	150	15	110	2000	8.95	300
		503.7 – 504.1 Weakly laminated 35°																
		504.4 – 504.7 30% mudstone clasts in m.g. wacke matrix. Clasts oriented into foliation @ 30°																
		506.7 – 507.2. Breccia with carbonate veins	stringers and veinlets of Pyrite															
		507.3 – 507.6 Weakly laminated 35°																
508.4	512.4	Dark grey to black Siltstone and very f.g. Sandstone. Orange weathering carbonate (+ minor quartz) veins are common. lower contact 30°	Pyrite 5% and locally up to 15% as f.g. disseminations, stringers and ? syngenetic bands.	58028	510.0	510.5	0.5	X			21	0.5	200	30	60	2550	8.10	44
512.4	518.4	Pale grey. massive m-cg Tuffaceous	1-2% Pyrite in scattered stringers															

486093

ELECTROLYTIC ZINC CO. OF A'ASIA LTD.
ROSEBERY – TASMANIA

DIAMOND DRILL CORE RECORD

HOLE No. RRP 239
Sheet 42

A 11241

FROM	TO	ROCK DESCRIPTION	MINERALISATION	SAMPLE No.	8-13 FROM	14-19 TO	Sample Length	ASSAY DATA Sn	W	Au	As	Ag	Cu	Pb	Zn	Mn	Fe %	Cr
		Lithic Wacke' Irregular thin carbonate veins. 513.1 - 514.0 Weak brecciation with abundant carbonate and quartz veins.		58029	515.0	515.5	0.5	x			150	x	130	5	120	1500	9.00	310
		516.2 - 518.4 Colour change to brownish grey as lithic grains are replaced by carbonate. 518.0 - 518.4 Strong carbonate veins with lower contact at 65°																
518.4	518.7	Brown-grey altered f.g. Vitric Felsic Tuff Sericite-carbonate matrix Lower Contact 20° 518.5 Sample No 43876 · Thin Section.																
518.7	519.7	Sedimentary Breccia Slump brecciated interbeds of pale grey f.g. Lithic Wacke', pale greenish grey m-c.g. Tuffaceous Wacke' and rare black Mudstone. Irregular carbonate-quartz veins. Lower contact irregular.	3% Pyrite as f.g. disseminations and stringers	557917	518.7	519.7	1.00	3	x	0.03	400	7.5	2850	x	165	6400	6.50	375
519.7	521.0	Dark-grey massive f-mg Lithic Wacke' (Felsic Volcanic) Irregular thin carbonate-quartz veins	2-3% Pyrite + Pyrrhotite in stringers	557918	519.7	520.3	0.60	x	x	0.12	140	x	195	5	130	6400	8.40	425
				557919	520.3	521.0	0.70	x	30	0.08	90	- x	140	x	125	5500	9.45	470
521.0	521.6	Core very broken ? Fault Zone Dark green to black Mudstone and rare chips of carbonate-quartz vein.	1% Pyrite as smears on fracture surfaces of rock chips.	557920	521.0	521.6	0.60	19	55	0.65	2700	x	10	x	110	3400	11.00	245
521.6	521.95	Tectonic Breccia Black Mudstone breccia	35-40% Arsenopyrite + minor Pyrite	557921	521.6	521.95	0.35	11	x	0.03	15.0%	0.5	80	5	65	3400	7.20	190

486094

ELECTROLYTIC ZINC CO. OF A'ASIA LTD.
ROSEBERY – TASMANIA

DIAMOND DRILL CORE RECORD

HOLE No. RRP 239
Sheet 43

A 11241

FROM	TO	ROCK DESCRIPTION	MINERALISATION	SAMPLE No.	8-13 FROM	14-19 TO	Sample Length	Sn	W	Au	As	Ag	Cu	Pb	Zn	Mn	Fe %	Cr
		annealed by minor carbonate veins and Arsenopyrite veins	as veins annealing the breccia.															
521.95	523.2	Dark grey to black massive Siltstone	2-3% Pyrite + minor Pyrrhotite	S 57922	521.95	522.6	0.65	26	38	0.06	1300	x	60	x	130	5100	11.00	210
		and Mudstone	in thin stringers	S 57923	522.6	523.3	0.70	26	x	0.005	320	x	110	x	95	3400	7.65	165
523.2	523.9	Grey sheared f-mg Lithic Wacke. Irregular carbonate veins and patches of broken core.																
		523.2-523.3 Strong shear with quartz-pyrite veins @ 40°	Pyrite 5%															
		523.8-523.9 Strong shear with quartz veins 20°																
523.9	527.9	Dark grey massive f.g and f-m.g Lithic Wacke. Framework grains are degraded feldspathic volcanic liths. and mudstone liths. Matrix is black mudstone. Irregular zones of thin carbonate veining. Lower contact 25°		58030	525.0	525.5	0.5	x			47	x	90	5	110	2250	7.45	280
527.9	531.3	Pale brownish grey mg Tuffaceous Lithic Wacke. Colour due to pervasive carbonate replacement of framework grains.																
		528.6-528.9 Tectonic Breccia zone annealed by carbonate-(quartz) veins. Lower contact irregular microfaulted.	3% Arsenopyrite + minor pyrite in stringers in the breccia.	58031	528.5	529.0	0.5	x			1.0%	1.5	270	25	85	3700	7.55	355
531.3	546.2	Interbedded dark grey Siltstone and f.g Wacke, and pale brownish grey m.g carbonated Tuffaceous Wacke. Irregular	1-2% Pyrite + Po in stringers															

ELECTROLYTIC ZINC CO. OF A'ASIA LTD.
ROSEBERY – TASMANIA

DIAMOND DRILL CORE RECORD

HOLE No. RRP 239
Sheet 44.

A 11241

FROM	TO	ROCK DESCRIPTION	MINERALISATION	SAMPLE No.	8-13 FROM	14-19 TO	Sample Length	Sn	W	Au	As	Ag	Cu	Pb	Zn	Mn	Fe %	Cr
		orange weathering carbonate veins																
		531·3 - 540·7 Dominantly Siltstone and		58032	533·0	533·5	0·5	x			180	1·0	120	40	60	1350	7·95	150
		f.g. Wacke'																
		540·7 - 546·2 About 60% Siltstone/Wacke', 40%																
		Tuffaceous Wacke'; with		58033	540·0	540·5	0·5	X			71	1·0	145	35	55	1400	7·60	100
		Tuffaceous Wacke' increasing																
		downwards. - Possibly large																
		scale grading indicating up-hole																
		facing.																
		Lower contact 40°																
546·2	547·3	Pale green Mudstone laminated with thin beds of pale		58034	546·5	547·0	0·5	x			18	x	190	5	70	680	7·45	50
		green f.g. Lithic Tuff. Lower contact irregular ~ 40°																
		547·1 Sample No. 43877 · Thin Section																
547·3	547·9	Dk grey massive Siltstone and f.g. Wacke'																
		Lower contact carbonate veins @ 35°																
547·9	549·9	Sedimentary Breccia. Mainly pale green																
		argillaceous Siltstone with slump brecciated		58035	549·0	549·5	0·5	x			23	x	45	5	60	770	8·15	85
		interbeds of dark grey f.g. Wacke' and																
		minor pale yellow Tuffaceous Wacke'																
		548·2 - 548·5 Weak Tectonic Breccia with carbonate veins etc.																
		549·5 - 549·9 " " " " " " "																
		and quartz veins																
		Lower contact 25°																
549·9	552·5	Pale khaki-brown carbonated and		58036	551·0	551·5	0·5	x			8	0·5	900	x	55	1950	6·95	140
		sericitised f.g. Reworked Lithic Tuff																
		with occasional brecciated inclusions																

486096

ELECTROLYTIC ZINC CO. OF A'ASIA LTD.
ROSEBERY – TASMANIA

DIAMOND DRILL CORE RECORD

HOLE No. RRP 239
Sheet 45

A 11241

FROM	TO	ROCK DESCRIPTION	MINERALISATION	SAMPLE No.	8-13 FROM	14-19 TO	Sample Length	ASSAY DATA Sn	W	Au	As	Ag	Cu	Pb	Zn	Mn	Fe %	Cr
		of pale green argillaceous Siltstone.																
		Lower contact 10°																
552.5	554.3	Dark grey f-mg. Lithic Wacke' and pale																
		greenish grey m-cg Lithic Wacke', crudely		58037	553.0	553.5	0.5	X			63	1.0	50	30	55	1200	7.40	120
		interbedded in a soft sediment slumped																
		breccia with some irregular carbonate-																
		quartz veins and clots.																
554.3	568.5	Sedimentary Breccia. Similar to 176.6-188.4	Sulphides variable. Less than															
		but clast fraction is less well developed.	1% overall but locally 3% as															
		Dominantly a dark grey to black carbonaceous	stringers and disseminations of															
		sericitic Mudstone matrix contains thin	pyrite and thin veinlets	58038	556.0	556.5	0.5	11			39	0.5	15	35	15	180	1.90	20
		disrupted beds of pale grey f.g. Quartz	of pyrrhotite															
		Arenite and Siltstone. Entire section is																
		weakly sheared and small veins and																
		replacements of milky white quartz are																
		common.																
		555.7 · Sample No 43878 Thin Section.																
		557.0-559.1 Superimposed Tectonic Breccia. Core		58039	562.0	562.5	0.5	X			19	X	15	5	15	360	1.60	20
		is annealed by abundant milky white quartz	Sample Nos.															
		veins and fracture infillings.	43861 - 43878															
		562.8-564.8 F.g. Quartz Arenite is the dominant phase.	Thin Sections.															
		566.4-567.2 Tectonic Breccia annealed by quartz veins	For Descriptions refer to															
		567.1-567.4 Core Broken.	C.M.S. Report No 83/10/14.															
		568.1-568.5 Core Broken.																
		End of hole 568.5 m.																

486097

ELECTROLYTIC ZINC CO. OF A'ASIA LTD
ROSEBERY – TASMANIA

DIAMOND DRILL CORE RECORD

HOLE No. JCP 211 1 of 4

LOCATION: Mt. Black, White Spur – Jones Creek

OBJECTIVE: To test an I.P./soil geochemical anomaly

RESULT: A technical success, but no ore grade mineralisation intersected.

Depth (m)	Direction A.M.G.	Dip.	Depth (m)	Direction	Dip.
30	92°	-71.25°	200	113°	-56.5°
60	94.5°	-70.75°	221	110.5°	-51°
101	94.5°	-70°	242	107.5°	-43°
137	100.5°	-68°	299	103°	-36°
167	105°	-62			

COLLAR DIP. – 70°
DIRECTION 092.5 A.M.G.
R.L. 911m
COORDINATES 5580S 370E (Dalwitz Grid)
AMG 5,364,611N 377,738E

TOTAL DEPTH 342.6m
HOLE SIZE NQ 71.2m rest BQ
COMMENCED 26.7.79
COMPLETED 20.8.79
LOGGED BY G. Iliff A.Mollison

DEPTH (m) FROM	TO	ROCK DESCRIPTION	MINERALISATION
			NOTE: Sample No's 28301 – 28353 and 28361 – 28368 are chip samples 28377 – 28396 are split core samples (excl. 28378) 28369 – 28376 and 28378 are petrological samples
0	10.6	Oxidised reworked tuff: tan, fine grained sorted tuff, Mn staining on joint faces.	
5.94	6.09	Gry-grn, fine grained dolerite intrusive.	
10.6	11.4	Gry-grn fg dolerite intrusive.	
11.4	16.9	Gry, coarse grained lithic vitric tuff with agglomerate lithic intervals. Mn stained joint faces.	
11.4	11.6	F.g. crystal vitric tuff.	
11.6	12.07	Interval of pink lithic vitric crystal tuff acidic felsic clasts.	
12.07	12.6	Grn, fg crystal vitric lithic tuff	
12.6	12.9	Interval of pink lithic vitric crystal tuff acidic felsic	
12.9	15.65	Olive grn, cleaved crystal vitric, lapilli tuff, acidic-dacitic with felsic lapilli	
15.65	16.9	Dk gry-grn cleaved crystal vitric tuff acidic-dacitic	
16.9	24.1	F.g reworked tuff, dk gry-grn, fg graded bedded vitric, lithic tuff; bedding 20°, occasional pumice frags, carbonate vnd.	
24.1	25.53	Coarse lapilli tuff; gry blotchy coarse grained lithic crystal vitric lapilli tuff, acid rhyo-dacite composition with silica feldspar carbonate & massive chlorite frags.	<1% pyrite

SAMPLE NO.	FROM	TO	CORE REC'D	Sample Length	Pb	Zn	Cu	Ag - g/t	Au - g/t	Fe%	Mn	CORE REC'D RUN	CORE REC'D SHORT
28301	0	5		5.0	305	190	80	1.5	0.017		1100	0	-
302	5	10		5.0	20	175	90	x	0.025		1150	1.5	0.2
303	10	15		5.0	75	145	900	x	0.017		1200	2.5	0.3
304	15	20		5.0	100	180	120	x	0.017		1600	3.5	0.1
305	20	25		5.0	35	180	85	0.5	0.025		1700	5.5	0.2
306	25	30		5.0	15	90	35	x	0.025		1000	8.5	0.1
307	30	35		5.0	20	85	20	x	0.017		700	11.5	0.1
308	35	40		5.0	130	95	20	x	0.017		1300	14.5	-
309	40	45		5.0	25	150	10	x	x		1050	19.5	0.1
28310	45	50		5.0	20	50	20	x	x		1150	22.5	-
311	50	55		5.0	20	70	40	x	x		700	25.5	-
312	55	60		5.0	20	80	20	x	x		950	28.5	-
313	60	65		5.0	50	120	25	x	x		1000	31.5	-
314	65	70		5.0	35	65	15	x	x		730	34.5	-
315	70	75		5.0	15	70	15	x	x		950	37.5	0.2
316	75	80		5.0	25	80	15	x	x		900	40.5	-
317	80	85		5.0	30	100	120	x	0.008		1100	43.5	-
318	85	90		5.0	30	100	20	x	0.008		1000	46.5	-
319	90	95		5.0	15	90	15	x	0.008		1050	49.5	-
28320	95	100		5.0	35	90	35	x	x		680	52.5	-
321	100	105		5.0	25	85	20	x	0.017		720	55.5	-
322	105	110		5.0	15	90	60	x	0.008		670	58.5	-
323	110	115		5.0	5	100	15	x	x		1000	61.5	-
324	115	120		5.0	10	105	20	x	x		900	64.5	-
325	120	125		5.0	5	95	15	x	x		740	67.5	-
326	125	130		5.0	15	115	10	x	0.017		710	70.5	-
327	130	135		5.0	210	500	20	x	0.017		1050	73.5	-
328	135	140		5.0	55	150	20	x	x		675	76.5	-
329	140	145		5.0	110	225	20	0.5	0.017		950	79.5	-
28330	145	150		5.0	330	900	45	x	0.017		1000	82.6	-
331	150	155		5.0	10	80	15	x	0.008		680	85.6	-
332	155	160		5.0	15	70	15	x	x		660	88.6	-
333	160	165		5.0	10	65	10	x	x		780	91.6	-
334	165	170		5.0	15	50	15	x	x		950	94.6	-
335	170	175		5.0	15	50	10	x	x		1050	97.6	-
336	175	180		5.0	5	50	10	x	x		1200	100.6	-
337	180	185		5.0	5	50	10	x	x		760	103.6	-
338	185	190		5.0	130	400	10	x	x		750	106.6	-
339	190	195		5.0	10	55	15	x	x		750	109.6	-

ELECTROLYTIC ZINC CO OF A'ASIA LTD
ROSEBERY – TASMANIA

DIAMOND DRILL CORE RECORD

HOLE No. JCP 211

DEPTH (m) FROM	TO	ROCK DESCRIPTION	MINERALISATION
26.53	42.7	Gry-grn f g crystal tuff, felsic composition	
26.53	30.7	Zone: quartz veins with yellow oxidation haloes	
35.2	36.85	Zone of oxidation, yellow with Mn stained joint faces.	
36.85	42.7	Zone of fine irregular qtz & carbonate vning	
42.7	53.45	Reworked tuff; gry to gry-grn fg bedded, sorted siltstone/tuff, fine qtz veined.	T28369 Sericitic, mildly sheared pelitic sed; subaqueous tuff (51m)
51.2		Quartz carbonate veining	
53.2		" " "	
53.45	55.2	Gry-grn fg crystal vitric tuff, acid felsic composition, feldspar phenocrysts	
55.2	104.4	Lapilli tuff; dk gry with pink frags, coarse grained crystal, vitric tuff, acid-felsic composition. Sparse brecciated qtz-chl vns elongation of frags, pink felsic frags, containing qtz phenocrysts, siltstone frags and massive sulphide frags.	<1% pyrite T28370 (71.8,) altered & sheared rhyolitic tuff; flow or auto-brecciated ignimbrite
66		Large pink felsic, lithic frags.	
68.4	73.7	Agglomerate zone of pink felsic lithic frags	
73.7	84.2	Zone of crystal vitric tuff with fine felsic lithic fragments	
84.2	85.5	Zone of agglomerate: pink felsic lithic frags	
85.5	89.6	Zone of crystal vitric tuff with fine felsic with fine felsic frags & brecciated qtz carbonate veins	
89.6	104.4	Brecciated qtz carbonate vns dominant in crystal vitric tuff	pyrite in qtz carb veins.

SAMPLE NO.	FROM	TO	CORE REC'D	Sample Length	Pb	Zn	Cu	Ag - g/t	Au - g/t	Fe%	Mn
				ASSAY DATA per ppm							
28340	195	200		5.0	25	50	40	x	x		790
341	200	205		5.0	10	50	x	x	x		740
342	205	210		5.0	10	50	x	x	0.008		760
343	210	215		5.0	10	60	10	x	x		800
344	215	220		5.0	210	410	15	x	x		760
345	220	225		5.0	145	250	10	x	0.008		1000
346	225	230		5.0	10	55	10	x	x		950
347	230	235		5.0	10	60	x	x	x		750
348	235	240		5.0	15	80	x	x	x		900
349	240	245		5.0	15	60	x	x	0.017		700
28350	245	250		5.0	5	55	x	x	0.017		1000
351	250	255		5.0	10	55	x	x	0.017		950
352	255	260		5.0	5	55	x	x	0.017		950
353	260	265		5.0	270	790	10	x	0.025		730
28377	266	268		2.0	1050	2500	35	0.5	0.008		1600
379	268	270		2.0	385	740	35	x	0.008		1150
28380	270	272		2.0	370	590	55	x	0.017		1400
381	272	274		2.0	365	660	40	x	0.017		980
382	274	276		2.0	695	2000	30	x	0.008		855
383	276	278		2.0	1300	2700	20	x	0.008		730
384	278	280		2.0	60	155	25	x	0.017		870
385	280	282		2.0	2850	9500	30	2.0	0.008		900
386	282	284		2.0	850	2000	25	0.5	x		770
387	284	286		2.0	2000	4950	20	1.5	0.008		710
388	286	288		2.0	1950	4850	30	0.5	0.008		810
389	288	290		2.0	1150	3050	30	1.0	0.017		760
28390	290	292		2.0	190	320	30	x	0.017		735
391	292	294		2.0	45	280	30	x	0.008		590
392	294	296		2.0	175	475	45	x	0.008		850
393	296	298		2.0	430	1450	45	0.5	0.008		900
394	298	300		2.0	950	1800	90	1.5	0.008		1100
395	300	302		2.0	30	195	50	x	x		1050
396	302	304		2.0	15	215	15	x	x		1450
28361	300	305		5.0	20	210	10	x	0.008		1600
362	305	310		5.0	85	190	45	x	0.017		1700
363	310	315		5.0	470	660	45	x	0.008		2000
364	315	320		5.0	195	530	20	x	0.008		2300
365	320	325		5.0	40	320	5	x	0.008		2650
366	325	330		5.0	30	150	x	x	0.008		570
367	330	335		5.0	25	100	x	x	x		1300
368	335	342.6		7.6	25	105	x	x	x		1500

CORE REC'D RUN	SHORT
112.6	–
115.6	–
118.6	–
121.6	–
124.6	–
127.6	–
130.6	–
133.6	–
136.6	–
139.6	–
142.6	–
145.6	–
148.6	–
151.6	–
154.6	–
157.6	–
160.6	–
163.6	–
166.6	–
169.6	–
172.6	–
175.6	–
178.6	–
181.6	–
184.6	–
187.6	–
190.6	–
193.6	–
196.6	–
199.6	–
202.6	–
205.6	–
208.6	–
211.6	–
214.6	–
217.6	–
220.6	–
223.6	–
226.6	–
229.6	–
232.6	–
235.6	–
238.6	–
241.6	–
244.6	–
247.6	–

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ELECTROLYTIC ZINC CO OF A'ASIA LTD
ROSEBERY – TASMANIA

DIAMOND DRILL CORE RECORD

HOLE No. JCP 211

DEPTH (m) FROM	TO	ROCK DESCRIPTION	MINERALISATION	SAMPLE NO.	FROM	TO	CORE REC'D	ASSAY DATA per ppm [illegible]	Pb	Zn	Cu	Ag - g/t	Au - g/t	Fe%	Mn
104,4	142,3	Light gry welded tuff; coarse grained crystal vitric welded tuff with strong elongation parallel to the core, acidic qtz-feldspar composition, lithic frags of altered siltstone & massive pyrite	Frags of massive pyrite <1% T28371 (122,9m) dacitic xenolithic acid tuff sheared probably an ignimbrite; very fg ?tetrahedrite ± galena												
132.2	132.7	Zone of yellow stained quartz veining.													
142,3	148,2	Contact angle 20° grey siltstone interbedded with fine crystal vitric tuff with aragonite filled tension gashes in the siltstone.	Pyrite & pyrrhotite stratiform in stringers and in aragonite tension gashes <5%												
143,4	144,55	Tuff band in the siltstone													
144,55	147.2	Siltstone zone with high proportion of aragonite filled tension gashes & qtz vning													
148,2	217,75	Ple gry-grn speckled fg to cg bedded sch crystal, vitric, lithic tuff with pumice fragments (ashflow)	Pyrite & pyrrhotite in frags, diss & in cleavage planes <1%												
148.2	149.5	Gry, fg rock with complex mesoscopic sedimentary & metamorphic textures, eg chevrons slumps, faults, cleaved, qtz, carbonate veined, rich in sericite & chlorite	Pyrite & pyrrhotite in qtz vns												
149,5	155	Transition zone of coarsening texture; gry-grn, fg becoming coarse grained with large fiamme, some elongation of fragments	Discrete frags of massive pyrite <1%												
184,74	185,3	Shear zone with a high proportion of sericite and chlorite & lustrous slicken-siding at 15° to 30° to the axis of the core	T28372 (185,3m) alt & sheared dacitic lithic-vitric-crystal tuff; minor ?marcasite, partly rimmed with film of sphalerite												
192.	217.75	High carbonate content	Siderite or Mn carbonate												
205	215	Zone of large chl vitric fragments >1cm													
217,75	221,7	Siltstone ashfall: dk gry fg laminated silty ashfall with qtz-carb rich laminae & aragonite/pyrrhotite filled tension gashes	Pyrite <1% pyrrhotite & stringer												

CORE REC'D RUN	SHORT
250,6	–
253,6	–
256,6	–
259,6	–
262,6	–
265,6	–
268,6	–
271,6	–
274,6	–
277,6	–
280,6	–
283,6	–
286,6	–
289,6	–
292,6	–
295,6	–
298,6	–
301,6	–
304,6	–
307,6	–
310,6	–
313,6	–
317,6	–
320,6	–
323,6	–
326,6	–
329,6	–
332,6	–
335,6	–
338,6	–
341,6	–
342,6	EOH

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ELECTROLYTIC ZINC CO. OF A'ASIA LTD
ROSEBERY – TASMANIA

DIAMOND DRILL CORE RECORD

HOLE No. JCP 211

DEPTH (m) FROM	TO	ROCK DESCRIPTION	MINERALISATION	SAMPLE NO.	FROM	TO	CORE REC'D	ASSAY DATA per ppm: Sample Length	Pb	Zn	Cu	Ag - g/t	Au - g/t	Fe%	Mn	CORE REC'D: RUN	SHORT
			T28373(218.7m) mildly sheared metapelite, laminated silty shale														
221.7	224.86	Reworked tuff; light gry, fg and f-mg vitric lithic tuff with carb alteration, bedded 40° to core axis.															
224.86	254.8	Felsic ashflow; ple gry coarse grained ash flow with feldspar phenocrysts containing large frags of siltstone.	Pyrite, minor disseminated & on cleavage planes <1% T28374 (230.2m) devit. alt. shrd, weakly xenolithic dacitic lithic-vitric-crystal tuff probably ignimbrite														
254.8	262.5	Reworked tuff; gry, fg bedded sorted acid tuff with minor carbonate															
262.5	303.75	Mineralised siltstone: gry laminated siltstone bedded 40° to core axis facing up hole, aragonite/pyrrhotite filled tension gashes.	pyrite & pyrrhotite stratiform in tension gashes and in stringers <5% galena & sphalerite in qtz stringers <1%														
263.7	266.2	Reworked tuff															
302.3	303.75	Zone altered by dolerite: pervasive & oolitic carbonate alteration of the siltstone, tension gashes carbonate remobilised	T28375 (287m) shrd low grade metapelite weakly carbonaceous siltstone														
303.75	322.5	Dolerite: grn mg basic igneous with about 2.5m	T28376 (325m) mildly alt & shrd porphyritic rhyodacite "ortho-														
303.75	305.2	chilled margin containing xenoliths of siltstone. No chilled margin on lower contact.	clase dacite" ?minor intrusive														
322.5	342.6	Pale gry mg rhyolitic ?intrusive; chilled margin against dolerite	T28378 (303.75m) intrusive devit mildly alt porphyritic dacitic														
	E.O.H.		Trace diss pyrite														

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ELECTROLYTIC ZINC CO. OF A'ASIA LTD
ROSEBERY – TASMANIA

DIAMOND DRILL CORE RECORD

HOLE No. JCP 216 1 of 5

		Depth (m)	Direction	Dip.		
LOCATION	Mt. Black E.L. 1/62 – White Spur – Jones Creek	0	270°	-50°	COLLAR DIP.	-50°
OBJECTIVE	To test an E.I.P. chargeability anomaly of twice back-ground level.	50		-46.5°	DIRECTION	270° True
		107		-37°	R.L.	
RESULT	Weak pyrite-sphalerite mineralisation occurs in bands of tuffaceous sediments which correspond to the chargeable zones.	149		-23°	COORDINATES	Grid 6400S 1760E

TOTAL DEPTH 149.2m
HOLE SIZE HQ 0-6, NQ 6-24, BQ 24-149.2
COMMENCED 6.3.'80
COMPLETED 11.3'80
LOGGED BY I. McDonald

DEPTH (m) FROM	TO	ROCK DESCRIPTION	MINERALISATION
0	3.3	No core recovered	
3.3	6.4	Pink weathering grey f-mg porphyritic lithic crystal tuff. Acid dacitic with quartz & feldspar phenocrysts & with thin (0.5-2mm) chlorite filled fractures. Very faint layering at 30° 5.7-5.9 Strongly jointed broken core with limonite staining ?after sulphides on the joints	
6.4	19.6	Green-grey f-mg porphyritic possible ashflow crystal vitric lithic tuff. Acid dacitic with feldspar & quartz. Chloritised & weakly carbonated with carbonate veins. Some chloritic fragments have flamme like shapes but may be due to streaching along schistosity. Weak foliation 35-40° throughout. Lower contact gradational. 7.2-7.8 Pink weathering feldspar 7.8-8.0 Strongly oxidised with imonite staining on joints 8-9.6 Pink weakly oxidised 9.6-10.5 Moderately oxidised pale pink-gry with limonite stain 10.5-12.5 Pink weakly oxidised 12.5-14.1 Weak-moderately oxidised with limonite staining 14.1-15.1 Strongly oxidised, core very broken with vuggy weathered-out carbonate veins & limonite staining 18.1-19 Weakly oxidised with carbonate veins & limonite staining ?after sulphides. 19.0-19.6 Becoming less porphyritic & more even grained	18.1-19.6 Traces f-g pyrite 19.5 0.5mm vein at 40° of sphalerite
19.5	27.1	Grey-green f.g. vitric crystal tuff. Acid dacitic with feldspar, quartz & sericite. Minor quartz-carbonate veins.	19.6-21.8 Scattered fg sulphides; total 3% py in fg disseminations sp in thin veinlets Gn as smears on joint surface

SAMPLE NO.	FROM	TO	CORE REC'D	Sample Length	Pb	Zn	Cu	Ag - g/t	Au - g/t	Fe%	Mn	CORE REC'D RUN	SHORT
												Chips	
29741	3.3	6.4	3.1	3.1	345	1050	10	0.5	0.008	3.3	1450		
742	6.4	11.2	4.8	4.8	1250	2550	20	0.5	x	3.9	1300		
743	11.2	14.2	3.0	3.0	1250	2400	20	0.5	x	3.75	1400		
744	14.2	20.2	6.0	6.0	1650	3150	20	1.5	x	3.7	1250		
745	20.2	25	4.8	4.8	290	2000	10	0.5	x	3.15	1200		
746	25	29.2	4.2	4.2	380	2650	10	0.5	0.008	3.1	1200		
747	29.2	34	4.8	4.8	1000	3150	20	1.5	x	3.2	1050		
748	34	40	6.0	6.0	700	2200	10	1.0	0.008	3.2	1350		
749	40	45	6.0	5.0	795	3050	15	1.5	0.017	3.55	1200		
29750	45	50	5.0	5.0	535	1100	5	1.0	x	3.15	1550		
751	50	55	5.0	5.0	390	800	5	0.5	x	3.2	1350		
752	55	60	5.0	5.0	530	950	x	0.5	x	3.3	1800		
753	60	65	5.0	5.0	450	1650	10	0.5	x	3.3	1350		
754	65	70	5.0	5.0	270	900	10	x	0.008	2.75	1100		
755	70	75	5.0	5.0	1750	5100	40	2.5	x	3.65	1600		
756	75	80	5.0	5.0	1950	6250	25	3.5	x	3.2	1700		
757	80	85	5.0	5.0	545	1650	x	1.5	x	2.95	1450		
758	85	90	5.0	5.0	1200	2550	30	2.5	x	3.05	1150		
759	90	95	5.0	5.0	950	2600	50	2.0	x	3.55	1550		
29760	95	100	5.0	5.0	30	130	45	0.5	x	4.8	1950		
761	100	105	5.0	5.0	215	435	25	x	x	2.5	1050		
762	105	110	5.0	5.0	45	155	10	x	0.008	3.1	1300		
763	110	115	5.0	5.0	10	95	50	x	x	3.1	1100		
764	115	120	5.0	5.0	60	95	10	x	0.017	1.9	800		
765	120	125	5.0	5.0	120	295	5	x	0.017	1.4	750		
766	125	130	5.0	5.0	10	40	5	x	0.008	1.95	790		
767	130	135	5.0	5.0	10	35	5	x	0.008	1.95	800		
768	135	140	5.0	5.0	10	30	5	x	0.008	1.50	950		
769	140	145	5.0	5.0	5	30	10	x	0.017	1.55	1050		
770	145	149.2	4.2	4.2	10	30	15	x	0.008	1.35	900		

ELECTROLYTIC ZINC CO OF A'ASIA LTD
ROSEBERY – TASMANIA

DIAMOND DRILL CORE RECORD

DEPTH (m) FROM	TO	ROCK DESCRIPTION	MINERALISATION	SAMPLE NO.	FROM	TO	CORE REC'D	ASSAY DATA per ppm Sample Length	Pb	Zn.	Cu.	Ag - g/t	Au - g/t	Fe%	Mn	CORE REC'D RUN	SHORT
		Very weak banding at 50°, Weak cleavage 35° 24.0 Sample No 29736 Thin section, see C.M.S. report 80/3/21. Lower contact diffuse about 40°	some associated with q-cb veins 24.7-25.8 Rare scattered pyrite-sphalerite associated with q-cb veins.														
27.1	27.9	Grey-green f.g weakly bedded Volcanogenic Sediment come reworked tuff. Acid dacitic composition. Weakly sericitised. Weak banding and cleavage coincident at 40° Lower contact gradational.															
27.9	28.9	Green-gry f.g. vitric crystal tuff. Acid dacitic, weakly sericitised. Thin quartz carbonate veins. Weak cleavage 45° 28.0-28.4 Limonite staining															
28.9	29.3	Green-gry f.g. weakly banded reworked tuff. Acid dacitic composition. Weak banding and cleavage coincident at 45°	28.9-29.3 2-3% disseminate Sphalerite in veinlets.														
29.3	30.3	Green-gry f.g. lithic crystal vitric tuff. Acid dacitic. Weakly chloritised & sericitised. Weak cleavage 50°															
30.3	30.5	Grey f.g. banded possibly reworked tuff Acid dacitic in composition. Silicified Quartz-carbonate veins.	30.4-30.5 Minor disseminated pyrite in quartz-carbonate veins.														
30.5	42.6	Green-gry f.g lithic crystal vitric tuff Acid dacitic. Weakly chloritised & sericitised. Weak cleavage 35-50° 38.4-38.6 Weakly oxidised with limonite staining in veins 38.0-38.7 Quartz-carbonate veins Lower contact diffuse	30.5-46.2 Scattered patches of remobilised sulphides throughout In total <2% 31.2-32.1 2-3% Pyrite sphalerite & limonite in veins 35.7-36.4 2-3% Pyrite-sphalerite in veins & irregular patches 42.6-43.0 3-4 Pyrite-sphalerite in veinlets associated with q-cb veining 43-60 Rare scattered veinlets of pyrite sphalerite Total sulpides <<1%														

ELECTROLYTIC ZINC CO OF A'ASIA LTD
ROSEBERY - TASMANIA

DIAMOND DRILL CORE RECORD

HOLE No. JCP 216

DEPTH (m) FROM	TO	ROCK DESCRIPTION	MINERALISATION	SAMPLE NO.	FROM	TO	CORE REC'D	ASSAY DATA per ppm: Sample Length	Pb	Zn	Cu	Ag - g/t	Au - g/t	Fe%	Mn	CORE REC'D: RUN	SHORT
42.6	57.9	Grey mottled f-mg porphyritic vitric crystal lithic tuff. Acid dacitic. Weakly chloritised and sericitised. Some flamme like textures may indicate an ashflow origin or may be chloritised liths or devitrified glass stretched out by the prevasive cleavage at 35-45°, rare quartz-carbonate veins and carbonation of some liths 42.6-43 Quartz-carbonate veins & brecciation with limonite staining on joints 50.3 Sample 29737 Thin section (see CMS Report 80/3/21) Lower contact gradual decrease in grainsize & porphyricity															
57.9	61.1	Greenish-grey f.g. weakly porphyritic lithic vitric crystal tuff. Acid dacitic weakly chloritised. 60-60.3 Quartz-carbonate veins & weak breccia texture	60-60.3 3% pyrite in veins 60.3-69.5 Rare stringers & vein lets of pyrite & minor sphalerite.														
61.1	61.7	Green-grey mg crystal vitric lithic lapilli tuff. Acid dacitic. Feldspathic liths in an anastomosing matrix of chlorite veinlets															
61.7	66.1	Greenish grey fg weakly porphyritic lithic vitric crystal tuff. Acid dacitic weakly chloritised. Weak banding & schistosity 55°															
66.1	66.6	As per above but with rare fragments of gry shale. 66.1-66.2 Weak breccia & carbonation															
66.6	67.4	Volcanogenic sediment come reworked tuff blocks of very fg shale in a matrix of greenish grey lithic vitric crystal tuff. Acid dacitic chloritised. Some shale blocks have rounded ?slump edges, others are sharply angular. Microfaulting is common.															
67.4	68.5	Green-grey fg lithic vitric crystal tuff. Acid dacitic, weakly chloritised.															
68.5	69.5	Green-gry fg reworked tuff, acid dacitic weakly chloritised. Weak ?slump structures with v.fg tuff slumps in a slightly coarser matrix.															

ELECTROLYTIC ZINC CO OF A'ASIA LTD
ROSEBERY – TASMANIA

DIAMOND DRILL CORE RECORD

HOLE No. JCP 216 4 of 5

DEPTH (m) FROM	TO	ROCK DESCRIPTION	MINERALISATION	SAMPLE NO.	FROM	TO	CORE REC'D	ASSAY DATA [illegible]	Pb	Zn	Cu	Ag - g/t	Au - g/t	Fe%	Mn	CORE REC'D RUN	SHORT
69.5	71.6	Green-gry fg tuff, acid dacitic weakly chloritised. Quartz-carbonate veins. Three sets of veins of different ages are successively offset by one another.	69.5-72.3 1% weakly disseminated pyrite														
71.6	72.3	Greenish gry mottled f-mg porphyritic possible ashflow lithic vitric crystal tuff. Acid dacitic chloritised. Weak banding and cleavage are coincident at 60°. Lower contact irregular approx. 60°															
72.3	76.8	Grey v. fg shale banding mainly 60°, in places irregular. 73.6 Sample 29738 Thin section (see CMS report 80/3/21)	Sulphides in total 3-4% Patchy bands & irregular veinlets of Py, Po, Sp & Gn in places upto 10%														
76.8	95.4	Green-gry f-mg porphyritic lithic vitric crystal tuff. Intermediate trachy-andesite sericitised and weakly chloritised. In places bands of ple gry silicified tuff occur. 77.5-77.9 Silicified tuff 78.3-78.7 Weakly silicified 79-79.3 " " 79.6-79.9 Silicified tuff with q-cb vns & weak brecciation 80.2-80.4 Silicified 81.1-82 Weakly silicified 82.9-83.3 " " 83.7-85 " " 89.2-89.5 Silicified 90.4-90.6 Weakly brecciated with chlorite veinlets 93-93.1 Thick carbonate veins Lower contact obscured, weak brecciated broken core.	89.2 25mm quartz vein at 30° with approx 7% cg galena														
95.4	100.8	Grey-grn fg weakly porphyritic intermediate trachy-andesite lava chloritised weakly sericitised & carbonated with irregular thin quartz-carbonate veins. Weak cleavage 50° 98.2 Sample 29739 Thin section (see CMS report 80/3/21) Lower contact sharp 55°															
100.8	101.6	Grey fg banded shale ?primary banding & cleavage coincident at 55° Lower contact sharp 55°	2% fg pyrite-sphalerite in thin (0.5mm) bands														

ELECTROLYTIC ZINC CO OF A'ASIA LTD
ROSEBERY — TASMANIA

DIAMOND DRILL CORE RECORD

HOLE No. JCP 216 5 of 5

DEPTH (m) FROM	TO	ROCK DESCRIPTION	MINERALISATION	SAMPLE NO.	FROM	TO	CORE REC'D	Sample Length	Pb	Zn	Cu	Ag - g/t	Au - g/t	Fe%	Mn	CORE REC'D RUN	SHORT
101.8	101.8	Grey mottled porphyritic reworked lithic tuff. cg liths flattened out by shearing? Strong foliation 60° Lower contact gradational															
101.8	105.9	Gry volcanogenic sediments predominantly gry fg banded shale with intercalated bands of f-mg reworked lithic tuff. Moderate to strong cleavage 60° 105.0 Sample 29740 Thin section (see CMS report 80/3/21) Lower contact interfingering? -> 105.68 Shale 105.68-105.77 Intermediate tuff 105.77-105.79 Shale 105.79-105.82 Intermediate tuff 105.82-105.9 Shale	101.8-105.9 Pyrite as fg scattered disseminations & as smears on joint surfaces Total ~2%														
105.9	109.1	Grn-gry mottled possible ashflow vitric crystal lithic tuff. Intermediate trachy-andesite, chloritised & weakly sericitised Moderate cleavage 60°. Some chlorite frags have a fiamme like texture but may be due to stretching along cleavage.															
109.1	112.7	Grn-gry fg volcanogenic shale with brecciated ?slump bands of fg gry vitric crystal acid tuff. Weak cleavage 65° Lower contact diffuse	2-3% fg pyrite dissem. in the slump zones.														
112.7	113.2	Pink/grn-gry mottled unit. Fragments of pink rhyolite occur in a fg groundmass. Possibly a lithic rhyolite lapilli tuff or possibly a poorly sorted volcanogenic sediment.															
113.2	114.3	Pink/gry-grn mottled brecciated acid rhyolite with quartz feldspar & sericite. Brecciated acid lava fragments lie in a chloritic matrix. Possibly a flow-top breccia?															
114.3	149.2	Pale pink fg massive lava, acid rhyolitic (possibly dacitic) with quartz feldspar. Weakly albitized? Weak foliation at 45° & a joint set at 25°. Irregular thin (0.5mm) chlorite veinlets occur throughout & joint surfaces are chloritic.															
END OF HOLE																	

ASSAY DATA per ppm

APPENDIX 2 Petrology Reports C.M.S. 83/9/35

C.M.S. 83/10/14

486107

Central Mineralogical Services

39 Beulah Road
Norwood, S.A. 5067
Telephone 42 5659

- 7 OCT 1983

GEOL 1

The Manager
Attn. Chief Geologist
Electrolytic Zinc Co. of
Australasia Ltd.
West Coast Mines
P.O. Box 21
ROSEBERY / TAS. 7470

5th October, 1983

REPORT CMS 83/9/35

YOUR REFERENCE:	Order No. 900454
DATE RECEIVED:	27th September, 1983
SAMPLE NOS.:	10 Samples
SUBMITTED BY:	I.J. Mathison
WORK REQUESTED:	Petrology

H.W. Fander, M. Sc.

REPORT CMS 83/9/35

Ten rock and drill core samples were received for petrological examination; thin-sections were prepared, and offcuts were subjected to carbonate and postash stain tests, as appropriate, to assist in identification and interpretation. The samples are briefly described in the accompanying tables.

Summary

The rock samples (i.e. 47, 49, 55) are apparently all igneous, but are very different, comprising an altered dolerite, a sheared, altered ?dacite, and an ?andesitic tuff or tuffaceous greywacke similar to some of the Crimson Creek rocks.

The drill cores are more varied and include dolerites (72, 77) correlatable with 47, though not necessarily the same intrusion, and sediments of different lithologies. Sample 70 represents a carbonaceous limestone in contact with a dolomitised scoriaceous tuff; strangely, the limestone is not dolomitised; 71 is clearly a lithological continuation of the limestone. 74 is a greywacke, tentatively correlated with the Crimson Creek on petrographic grounds, and 76 seems to be a hybrid rock, of turbidite formation in which greywacke (cp. 74?) is hosted by siltstone, but a single section may not show the true relationship; if this intersection is below 74, it would seem more logical that the greywacke should be the host - this would also be more compatible with genetic considerations.

Sample 75 is believed to be pervasively metasomatised, as seen by the abundance of fine pyrrhotite and a silicate phase tentatively identified as fine hydrogarnet; thus, there is some uncertainty whether the rock was a fine tuff, though the available petrographic evidence suggests this.

H.W. Fander, M. Sc.

486109

CENTRAL MINERALOGICAL SERVICES

Sample No.	Rock Type - Composition	Fabric	Minor Minerals	Comments
53347 (T.S. 47361) Colebrook 5370920N 376220E	Altered ?Dolerite. Now composed entirely of secondary/replacive chlorite and quartz, with conspicuous leucoxene pseudomorphs after magnetite throughout; fine sericite.	Medium-grained pseudomorphous textures after feldspars. Random orientation. Doleritic fabric.	Thin shear zones with quartz, chlorite, talc and goethite.	Relict textures and distribution of leucoxenised opaques strongly suggest dolerite or simklar medium-grained igneous rock.
53349 E Colebrook 371160N 376380E	Sheared, Argillised Volcanic. Composed of regular lenses of fine illite-sericite with interstitial streaks, lenses of fine, granular carbonate; a few quartz and plagioclase fragments.	Strong preferred fabric and textures, with fragmented ?phenocrysts; very fine-grained.	Skeletal leucoxene patches after oxide opaques. Traces of fine pyrite.	Present mineral assemblage and poorly-preserved relict features suggest that rock was a dacite - ?Mt. Read Volcanics.
53355 E Colebrook 371140N 376240E	Altered Tuff. Now composed of fine illite-sericite flakes, microgranular carbonate, leucoxenised opaques, and scattered larger patches of very pale chlorite (altered ?ferromagnesian minerals).	Fine-grained, with clastic textures, well-bedded and uniform. Incipient cleavage.	Crosscutting veins of carbonate with pale chlorite. Trace pyrite.	Believed to be correlatable with the tuffaceous sequence of the Crimson Creek formation; post-lithification argillic alteration.
53370 CHP241 70.8m.	Altered Tuff/Carbonaceous Limestone. Tuff composed of small vitric, vesicular grains, feldspar fragments, all heavily dolomitised; sharp contact with finely crystalline calcite with carbon streaks.	Well-bedded fine limestone; tuff is coarser, with good scoriaceous textures, crudely bedded.	Concordant and discordant coarse dolomite veins. Granular pyrite, mainly in limestone.	Carbonaceous limestone (probably argillaceous) is typical black shale facies. Tuff consists mainly of fine cinders, subaqueously deposited.
53371 CHP241 81.0m.	Laminated, Carbonaceous Limestone. Bands of fine/medium-grained calcite alternating with bands of carbonaceous, calcareous shale with syngenetic pyrite.	Well-bedded, especially the shale laminae, accentuated by carbonaceous films, streaks.	Isolated crosscutting dolomite-quartz veins.	Correlatable with 53370, continuation of black shale facies. Note that carbonate is primary calcite; virtually undolomitised.
53372 CHP241 106.0m	Brecciated, Altered Dolerite. Small random laths of fresh and argillised andesine, interstitial chlorite, carbonate; conspicuous leucoxenised magnetite. Wide calcite veins.	Doleritic, verging on basaltic fabric; no extrusive characteristics. Fractured, sheared.	Calcite-chlorite-pyrrhotite veins. Vein-quartz intergrown with calcite.	Very similar to 53347, but fresher (some plagioclase preserved). Could have been microdiorite/andesite, but dolerite more likely.
53374 CHP241 138.6m	Greywacke (?Tuffaceous). Small angular fragments of quartz, plagioclase, reddish chert, carbonaceous siltstone, altered dolerite/andesite; carbonate; chloritic matrix/cement.	Weakly bedded, poorly to moderately sorted, medium/gine-grained, with coarser lithic grains.	Crosscutting chlorite-calcite veins. Fine pyrite and ?chalcopyrite throughout.	Possibly grades into Crimson Creek-type tuffs. Post-lithification chloritisation and sulphide deposition.
53375 CHPA41 189.0	Metasomatised ?Tuff. Small splintery to angular quartz and plagioclase fragments, abundant interstitial cloudy white ?hydrogrossular; conspicuous fine pyrrhotite throughout.	Fine-grained, well-bedded and uniform. Relict fine shard-like textures.	Cut by thin veinlets of pyrrhotite/very pale chlorite.	Could be a tuffaceous siltstone. Pervasive metasomatism by ultrafine minerals has obiterated many details.

CENTRAL MINERALOGICAL SERVICES

Sample No.	Rock Type - Composition	Fabric	Minor Minerals	Comments
53376 CHP263 218.0m	Siltstone/Greywacke. Mixed rock. Shreds and shapeless masses/pellets of chloritic greywacke (53374), haphazardly intermingled with carbonaceous siltstone, and argillite patches.	Siltstone is bedded, but whole fabric is chaotic - soft sediment deformation, slumping.	Irregular, winding chlorite veinlets.	A turbidite sediment formed from intermingling of unconsolidated or semi-consolidated greywacke and siltstone.
53377 (T.S. 47370) CHP241 175.5m	Sheared, Altered ?Dolerite. Stubby laths of partly to wholly altered andesine, with chlorite pseudomorphs after ferromagnesian minerals, and conspicuous leucoxenised opaques.	Doleritic fabric preserved in places; extensive brecciation and shearing.	Fine carbonate and carbonate pseudomorphs. Quartz/chlorite-filled shears.	Similar to the other dolerites, but originally coarser; regarded as intrusive. Alteration in stages, before and after shearing.

486110

486111

Central Mineralogical Services

CMS
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The Manager
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Electrolytic Zinc Co. of
Australasia Ltd.
West Coast Mines
P.O. Box 21
ROSEBERY / TAS. 7470

26th October, 1983

REPORT CMS 83/10/14

YOUR REFERENCE:	Order No. 900458
DATE RECEIVED:	7th October, 1983
SAMPLE NOS.:	43861 - 43878
SUBMITTED BY:	I. McDonald
WORK REQUESTED:	Petrology

HWFander

H.W. Fander, M. Sc.

486112

REPORT CMS 83/10/14

Drill Core Samples 43861 - 43878

Eighteen drill core samples were received for petrological study; thin-sections were prepared, and carbonate stain tests were carried out on offcuts where necessary; the rocks are briefly described in the accompanying tables.

Summary

All the rocks are sediments except for 43874, and include a number of tuffs as well as generally fine-grained clastic rocks.

The tuffs, which are prone to alteration in any case, are recognisable only in broad terms in many instances, though the nature of the alteration is a guide to original composition, and it is possible to tentatively correlate some of the rocks with units of the Crimson Creek Formation.

The sediments are often carbonaceous, and show slumping or other types of soft-sediment deformation and brecciation; several have been affected by later shearing, veining or metasomatism. 43867 is a distinctive rock in that it contains conspicuous chromite-rich heavy-mineral bands; it thus postdates the ultramafic source rocks of the chromite.

The bright green mineral in 43866 is sericite-hydromuscovite, and no fuchsite was detected. The "spots" in 43873 are chlorite and were formed during the chloritisation of the rock. The pink patches in 43874 represent altered pyroxene.

Pyrrhotite occurs in at least three rocks (43875, 43876, 43878) and may well be more common elsewhere (i.e. outside the drillhole); in addition, the Crimson Creek type andesitic/basic tuffs contain abundant ilmenite-magnetite which, in these particular rocks, is mostly represented by leucoxene, but in 43869 there are remnants of unaltered opaques which suggest other occurrences.

H.W. Fander, M. Sc.

Sample No.	Rock Type - Composition	Fabric	Minor Minerals	Comments
43861 (T.S. 47661) 41.4m	Coarse Lithic-Crystal Tuff. Coarse fragments (?phenocrysts) of plagioclase, quartz, and volcanic material (rhyolite-dacite, trachyte) in a fine altered matrix with sericite, carbonate.	Most grains 2-3 mm, moderately sorted and crudely bedded; angular. Some shearing, veining.	Carbonaceous shale and chert fragments. Carbonate (?dolomite) veins disrupted by shearing.	Could be reworked material from nearby source; rock would then be volcanomict sandstone, not tuff. Acid/intermediate source, minor sedimentary components.
43862 72.0m	Feldspathic ?Tuff. Consists very largely of close-packed, angular fragments of extensively argillised ?andesine, with a few quartz splinters and black shale slivers. Abundant fine pyrite.	Grainsizes 0.5 - 1 mm, well-sorted, weakly bedded. Matrix obscured by alteration.	Wisps of carbonaceous material. Carbonate-pyrite veinlets. A few felsite grains.	Low-grade pervasive sericitisation and pyritisation has obscured some details, and rock may consist of re-worked material.
43863 97.5	Orthoquartzite. Dominantly silt-and fine-sand-size quartz grains, with small clastic mica flakes; grains are stressed and partly recrystallized. A few fine carbon wisps.	Relatively poorly sorted for this type of rock. Weakly bedded. Microfractured.	Scattered pyrite. Ptygmatic veinlets of carbonaceous carbonate. Detrital heavies.	Fine networks of sericite, probably introduced with subtle micro-fracturing. Poor sorting and lack of bedding suggest a turbidite.
43864 137.0	Slump-Breccia (Turbidite). Disrupted, deformed beds and laminae of micaceous shale and siltstone, fine ?feldspathic sandstone and poorly sorted sandstone.	Typical slump structures, with one rock type as fragments in another, sedimentary dykes, folding and other features.	Late-stage sideritic carbonate in sericitised feldspar patches and as veins. Fine carbon, pyrite.	Originally a strongly laminated sediment composed of shale, argillaceous silt/sand layers. Reducing environment of deposition.
43865 183.4	Slump-Breccia. Small and large, lensoid and ovoid masses of fine quartzite, siltstone and shale set in a folded, deformed mass of carbonaceous argillite.	Fabric is almost schistose in places. Fragments were only semi-consolidated when rock formed.	Scattered pyrite with siderite patches. Fragmented quartz veins. Stellate sericite clusters.	The shapes of most of the more competent quartzose rocks suggest that they were still plastic at the time of slumping.
43866 215.65	Breccia. Angular fragments of chloritised and sericitised ?arkose, and pebbly lithic sandstone with chert pebbles in a coarse clastic matrix of quartz, chert, altered feldspar grains.	Chaotic fabric, with extensive brecciation and veining; wide variety of textures.	Wide veins of quartz-carbonate-pyrite-chlorite. Patches of pale green sericite-hydromuscovite.	Extensively altered as well as being brecciated, and relationships and nature of components not clear.
43867 217.2	Sheared Orthoquartzite. Framework of sub-angular to subrounded quartz grains, occasional feldspar and chert, well-cemented and partly recrystallized; interstitial chlorite and carbonate.	Shearing concentrated along heavy-mineral bands. Well-sorted, poorly bedded.	Heavy-mineral bands dominantly chromite, with leucoxene, tourmaline, zircon.	Chromite derived from Cambrian ultramafics. Shearing accompanied by introduction of chlorite, sericite, trace pyrite, and coarse carbonate.
43868 235.8	Brecciated, Argillaceous Chert. Composed of microcrystalline quartz, with ultrafine clay and leucoxene; very extensively veined by sericite-carbonate networks.	Rock originally banded, extremely fine-grained. Conformable and crosscutting veins.	Sporadic small pyrite grains associated with carbonate. Fine stellate sericite clusters.	Relatively conspicuous leucoxene of syngenetic origin is fairly typical of many cherts. Veins appear to be related to post-lithification tectonism.

Sample No.	Rock Type - Composition	Fabric	Minor Minerals	Comments
43869 262.0m	Chloritised ?Tuff. Scattered quartz splinters embedded in a mass of fine matted chlorite with carbonate and leucoxene, with relict clastic features almost obliterated.	Originally fairly fine-grained, uniform, bedded. Extensively fractured and veined.	Chlorite-carbonate veins. Oxide opaques in places.	Chloritisation has virtually destroyed original features and most components; rock could have been Crimson Creek-type andesitic tuff.
43870 407.6m	Carbonaceous, Dolomitic Shale. Composed of small lenses of random sericite and chlorite, with dolomite patches, separated by thin subparallel carbonaceous films with leucoxene.	Good preferred structure, but textures are random; soft-sediment deformation.	Scattered calcite nodules; some are pyritic. Crosscutting calcite veins. Clastic quartz.	Fabric suggests that rock was remobilised (probably by a process of thixotropy induced by slumping), then lithified and veined.
43871 409.4m	Indurated Shale. Composed almost entirely of very fine matted-parallel sericite flakes with silty laminae (bottoms of units) and lenses; conspicuous ultrafine leucoxene.	Minor slump-structures. Post-lithification fracturing, veining and minor faulting.	Phlogopite-chlorite-carbonate veinlets.	Rock is normal argillaceous sediment with weak graded bedding. Phlogopitic veins are evidence of metasomatic activity.
43872 416.0m	Metasomatised ?Tuff. Now composed of small indeterminate masses of fine matted phlogopite/chlorite-sericite, with interspersed clastic quartz, conspicuous leucoxene.	Very uniform, fine-grained; suggestion of clastic textures. Brecciated after lithification.	Angular spaces between rock fragments contain pyrite, dolomite, chlorite and quartz.	Believed to have been a Crimson Creek-type tuff/tuffaceous greywacke, but thoroughly metasomatised, almost unrecognisable.
43873 429.3m	Altered Volcanic (?Vitric Tuff). Scattered small quartz and feldspar fragments embedded in a fine, poorly-defined mass of chlorite, sericite, carbonate, with chlorite spots.	Poorly preserved textural features suggest a fine vitric tuff, perhaps welded.	Quartz-chlorite-carbonate veins filling fractures.	"Phenocrysts" are ovoid, annular bodies of pale green chlorite with cores of host rock, of unknown origin.
43874 439.5m	Altered ?Gabbro. Quite well-preserved prismatic crystals of oligoclase; angular patches of fine carbonate (ankerite) after pyroxene; coarse skeletal leucoxene.	Coarsely-crystalline, random, igneous fabric disrupted by extensive veining.	Small veins and larger masses of very pale chlorite. Fibrous calcite veins.	Inferred mineral assemblage and fabri suggest an oligoclase-leucogabbro, but may have been a type of diorite.
43875 448.0m	Altered ?Tuff. A few coarser, irregular fragments of altered glass and lithic volcanic material in a fine, indeterminate chlorite-sericite-carbonate-leucoxene matrix.	Fragmental textures recognisable. Preferred orientation may be ?welding/flow.	Irregular veins of chlorite-carbonate withfine pyrrhotite.	Paucity of quartz and nature of alteration suggest an intermediate to basic volcanic source, similar to Crimson Creek tuffs.
43876 518.5	Altered ?Vitric Tuff. Small spherical and droplet-shaped bodies of microcrystalline quartz pseudomorphing ?glass, in a fine sericite-carbonate matrix with conspicuous leucoxene.	Vague preferred orientation, with semi-schistose sericite. Fine/medium-grained.	A few small altered ?andesite grains. Many carbonate veins, with minor pyrrhotite.	Inferred original composition was acid rather than intermediate, contrasting with 43872 and 43875. Severely altered.

Sample No.	Rock Type - Composition	Fabric	Minor Minerals	Comments
43877 547·1	Brecciated, Tuffaceous Siltstone. Mostly very fine cloudy semi-opaque shale, with intercalated bands of much coarser altered lithic tuff or tuffaceous siltstone.	Well-bedded, laminated rock. Extensive brecciation, displacement of fragments, veining.	Quartz-chlorite-carbonate veins. Tuff bands chloritised	Suggestion of graded bedding in places. Very probably a mixed clastic-pyroclastic, subaqueously deposited rock.
43878 (T.S. 47678) 565·7	Brecciated, Carbonaceous Siltstone/Shale. Shale bands, plastically deformed, are carbonaceous schistose sericite; intercalated with quartz-rich siltstone, showing blocky brecciation.	Very different response of competent and incompetent beds. Fine-grained. Faulted.	Clear quartz veins. Crosscutting pyrrhotite-sericite veins. Scattered pyrite.	Pyrrhotite is significant, because it occurs as thin but continuous veinlets. No evidence of volcanic component.

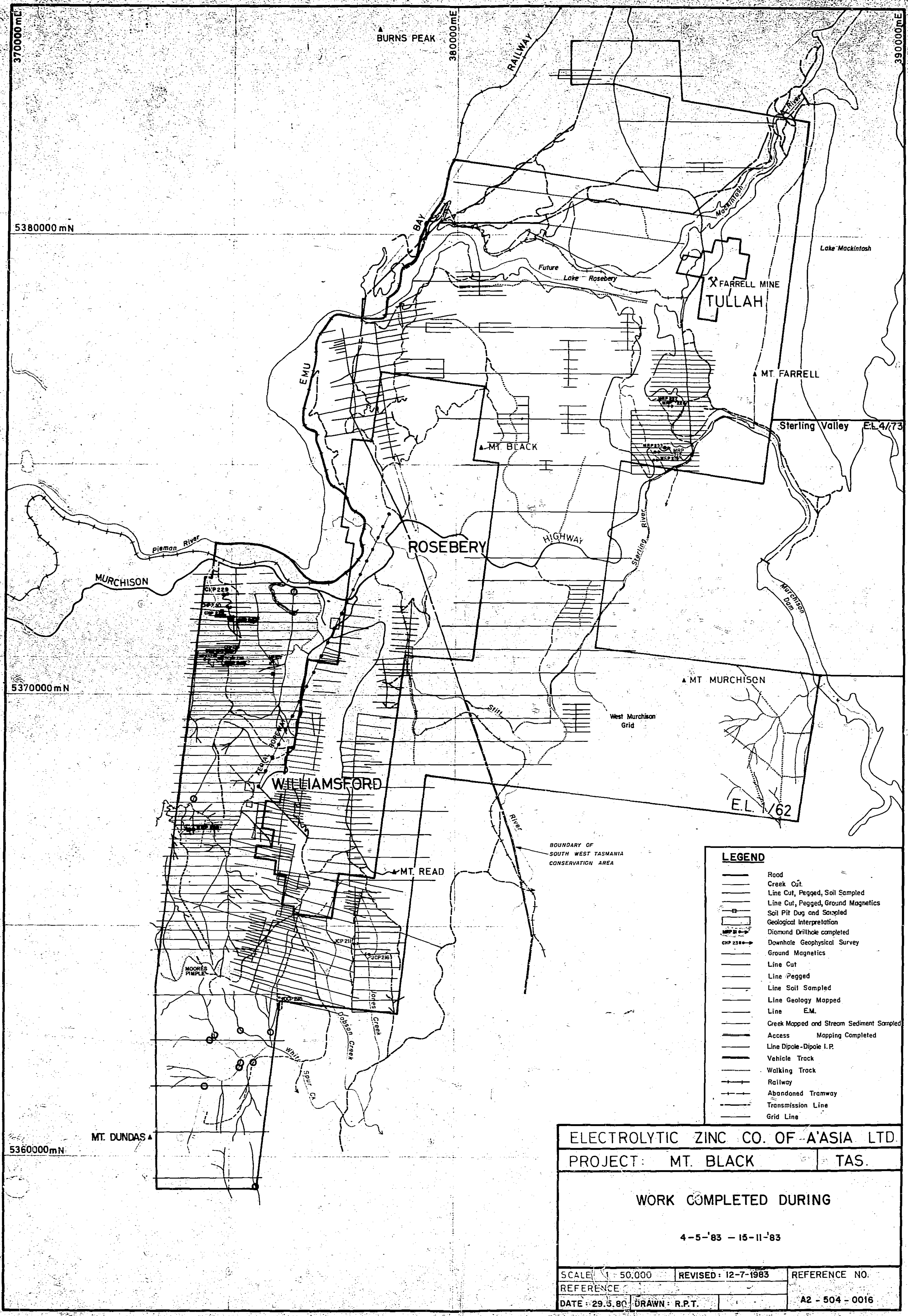
486116

APPENDIX 3 Geochemical Multi-element Scan Results – DDH CHP 240

GEOCHEMICAL SCAN RESULTS FOR DDH. CHP 240 - COLEBROOK HILL

486117

Sample No.	Depth (m)	Lithology	Li	Na %	K %	Rb	Be	Mg %	Ca %	Sr	Ba	Ti	V	Co	Ni	Nb	Mo	Hg	Sb	Bi	Te	La	Ce	B	P %	F	Cl
			Analytical Values (in ppm unless specified)																								
44975	59.0 - 62.0	Volcanic Wacke	14	2.46	1.00	50	2	3.50	2.50	85	270	1.08%	240	50	140	25	1.5	0.01	6	x	x	50	50	500	0.110	400	25
44995	114.0 - 115.3	Altered brecciated Siltstone 20% Po + Cpy + Asp as veins and dissems.	8	0.48	0.24	20	2	1.87	6.25	60	x	5900	140	125	195	15	1.5	0.06	10	66	x	40	x	7500	0.089	500	300
53601	128.0 - 131.0	Siltstone 5% Po + minor Cpy + Asp veinlets.	20	2.41	2.53	290	2	2.02	2.17	130	330	6600	220	50	175	15	3.5	0.01	x	x	x	50	x	1100	0.098	500	60
53624	170.0 - 171.5	Carbonate altered Volcanic Wacke 5% Po + 5% Cpy in patches and dissems.	8	0.28	0.25	20	2	2.08	9.25	50	x	5500	130	330	125	15	1.5	0.02	x	32	x	30	x	7500	0.091	600	150
53625	171.5 - 173.0	Axinite - actinolite - quartz - calcite rock	5	0.14	0.20	20	2	1.68	13.20	35	x	5700	150	190	145	25	5.0	0.01	x	2	x	30	x	1.10%	0.112	500	100
53631	182.0 - 183.0	Strongly Axinite altered wacke and siltstone with Po + Cpy	6	0.13	0.02	15	3	1.63	9.75	55	x	5900	100	810	160	15	3.5	0.02	x	460	x	30	x	7200	0.083	400	170
53639	190.0 - 191.0	Massive and banded Po and hornblende - axinite. minor Cpy.	2	0.20	0.20	x	x	0.85	4.75	x	x	2800	55	260	80	x	3.0	x	8	230	x	40	x	1450	0.067	200	115
53643	194.0 - 195.0	Hornblende rock 10% Po.	6	0.52	0.52	10	x	1.90	5.25	20	x	6000	130	130	80	15	3.0	0.01	7	6	x	30	x	1700	0.088	800	170
53669	220.0 - 221.0	Actinolite Limestone 10% Po in conformable bands	5	0.06	0.07	10	1	0.90	22.50	110	x	2300	55	35	55	10	x	0.01	x	10	x	x	x	2650	0.084	200	60
53676	227.0 - 228.0	Actinolite - axinite - calcite rock. 20% Po. Veins	11	0.21	0.27	30	1	1.63	15.70	120	x	4800	110	115	70	15	1.0	x	x	4	x	x	x	3300	0.101	400	100
53688	246.0 - 248.0	Siltstone with veins of Actinolite - axinite and minor Po.	27	2.09	3.25	430	2	3.14	2.02	90	420	1.13%	250	55	165	25	1.5	x	5	x	x	50	x	420	0.106	800	80
53698	269.0 - 272.0	Siltstone with rare thin quartz - Po veinlets.	31	2.35	3.02	430	2	3.26	2.32	170	420	1.35%	280	60	145	30	0.5	0.01	8	x	x	60	x	490	0.120	1000	90



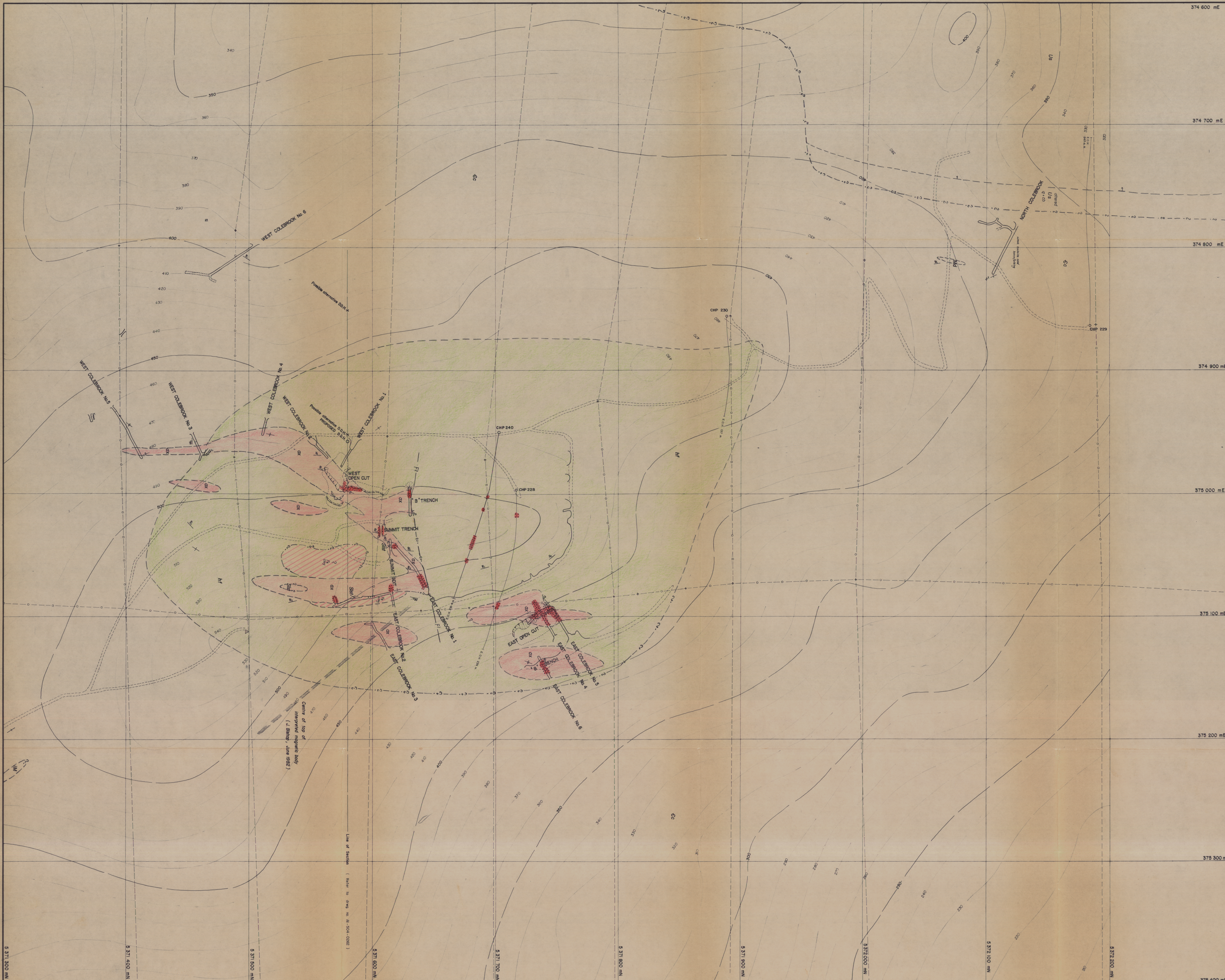
ELECTROLYTIC ZINC CO. OF A'ASIA LTD.

PROJECT: MT. BLACK TAS.

WORK COMPLETED DURING

4-5-'83 – 15-11-'83

SCALE 1 : 50,000	REVISED: 12-7-1983	REFERENCE NO.
REFERENCE		
DATE: 29.5.80	DRAWN: R.P.T.	A2 - 504 - 0016



NOTES

Most data for this interpretation from 1982 mapping. Other valuable data derived from 1980-81 E·Z mapping, from 1956-57 E·Z mapping (I.S. Gregory) and from 1901 drilling reported by Waller 1902.

Base derived from surveys by W. Moyle 1982 and I. S. Gregory 1957. Significant compass deviation (10° - 70°) in the vicinity of several adits necessitated some minor adjustments to obtain best fit.

Contours at 10m interval sketched from 1 : 10 000 scale plans with limited ground survey control.

LEGEND

O—	D. D. H. Collar surveyed
+	Grid peg position surveyed
o	Grid peg position interpolated
70°	Strike and dip of bedding
80°	Strike and dip of banding in skarn.
54 Md	Dolerite
iM	Minor Mafic Intrusive (Gabbro)
64 Us	Serpentinized Ultramafic Intrusive
ax	> 10% Sulphide Axinite - actinolite skarn or hornfels with axinite.
Slst	Impure Limestone
hf	Hornfelsed silstone and ! wacke.
€c	Interbedded tuffaceous siltstone and volcanic wacke.

486119

5 cm

ELECTROLYTIC ZINC CO. OF A ASIA. LTD.

PROJECT: MT. BLACK	TAS.

COLEBROOK HILL MINE AREA

Interpreted Geology

SCALE: 1:1000	Survey: I. Mat.	Revised:
Reference:	Date: 15. 6. 1982	REF. NO.
Drawn: Nik	Checked:	A0 - 504 - 0265

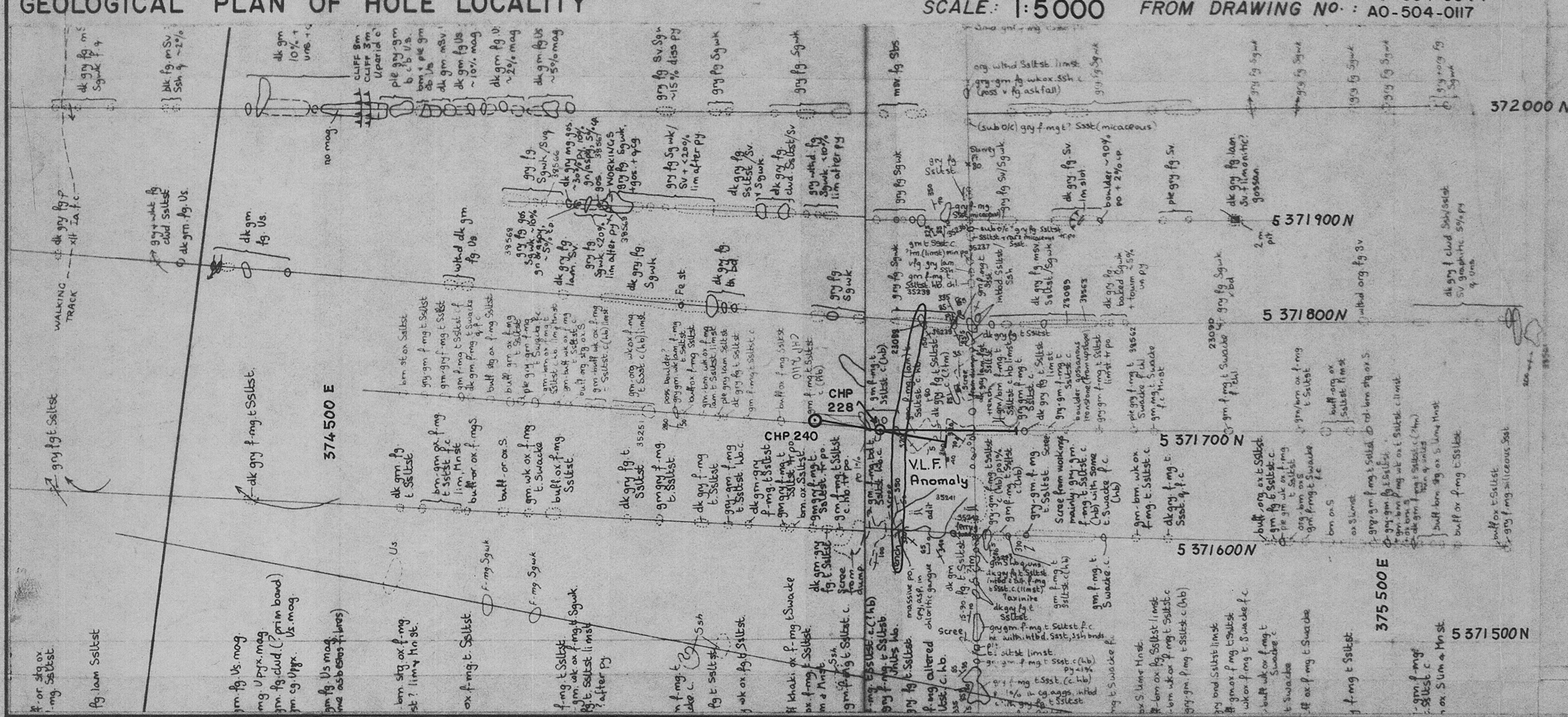
E Z PLAN CABINET TRIM LINE

EL 1/62
Colebrook Ridge Fault
LEGEND
Glacial Scree Cover
Dundas Group
Salisbury Conglomerate
Stitt Quartzite
Western Sequence Felsic Volcanics
Natone Volcanics
Crimson Creek Fm.
Westcott Argillite
Williamsford Volcanics
Munro Creek Shales
Moores Pimple Gabbro
Colebrook Serpentinite
Geological Contact
Fault
Fold Axis
5 cm
ELECTROLYTIC ZINC CO. OF A'ASIA LTD
PROJECT: MT. BLACK
TAS.
COLEBROOK HILL
GEOLOGY
486120
83-2068
Vol 2/2.
SPECIAL SHEET
SCALE 1:5000
Survey I. Mat.
Revised 10.5.'83
Reference:
Date 23.12.1981
REF NO
Drawn Nik.
Checked
A0-504-0191
5 373 000 mN
377 000 mE
E.Z. PLAN CABINET TRIM LINE

E.L. 1/62
Ring Valley Fault
Colebrook Ridge Fault
Conliffe Creek Fault
WEST HERCULES GRID
NORTH HERCULES GRID
LEGEND
Glacial Scree Cover
Dundas Group
Salisbury Conglomerate
Stitt Quartzite
Western Sequence Felsic Volcanics
Natone Volcanics
Crimson Creek Fm.
Westcott Argillite
Williamsford Volcanics
Munro Creek Shales
Moores Pimple Gabbro
Colebrook Serpentinite
Geological Contact
Fault
Fold Axis
ELECTROLYTIC ZINC CO. OF A ASIA. LTD.
PROJECT: MT. BLACK E.L. 1/62
TAS.
RING RIVER
SPECIAL SHEET
GEOLOGY
5 cm
486121
83-2068 Vol 2/2
SCALE: 1:5000
Survey: J.R., I.Mat.
Revised:
Reference:
Date: 20.8.1982
REF NO
A0-504-0291
Drawn: Nik
Checked:

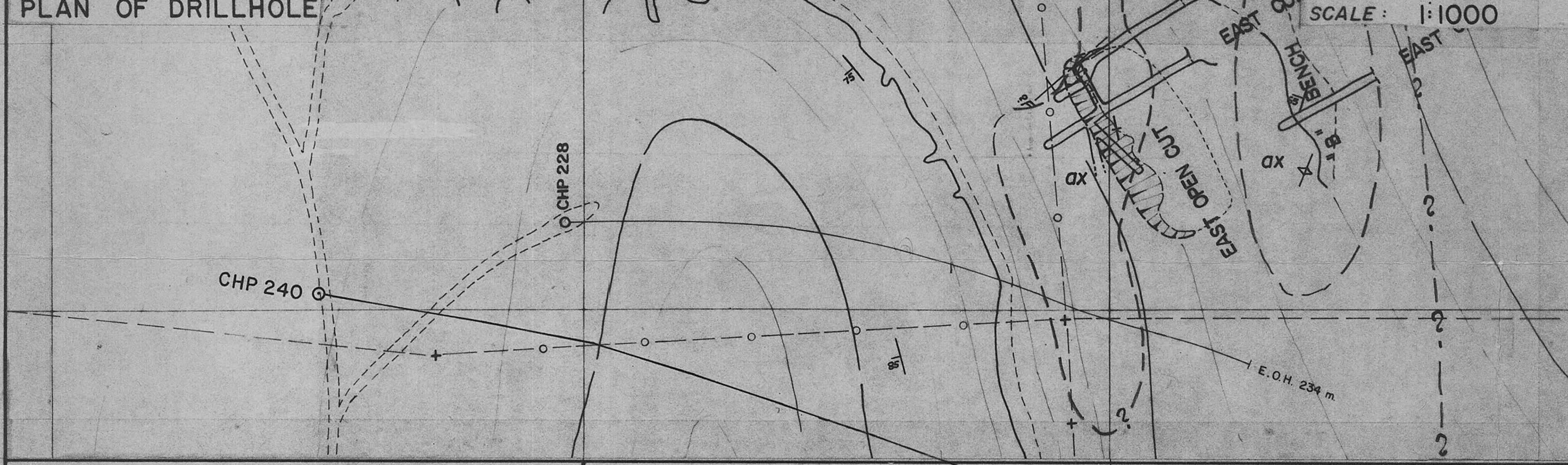
GEOLOGICAL PLAN OF HOLE LOCALITY

SCALE: 1:5000 FROM DRAWING No. A0-504-0044, A0-504-0117



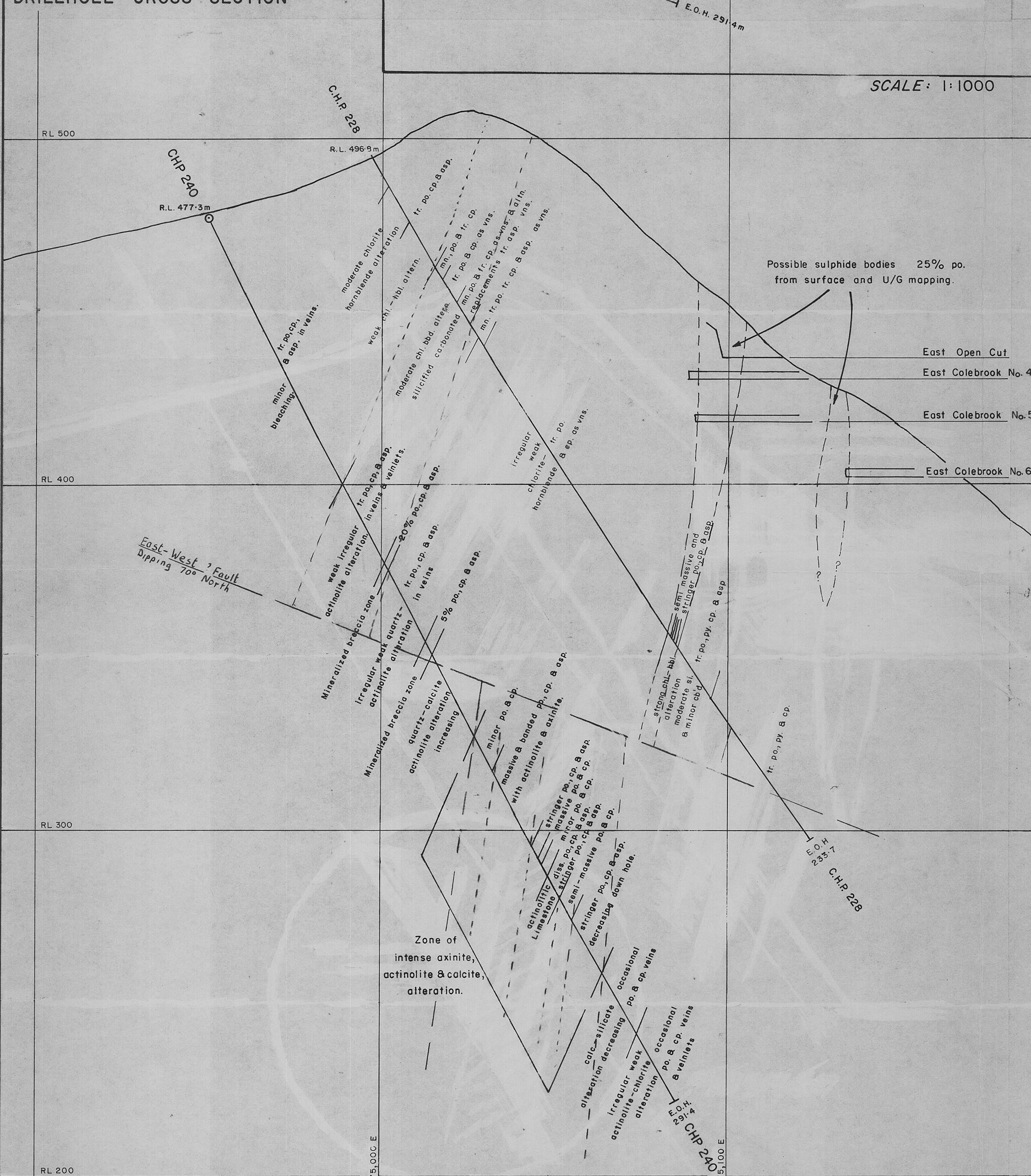
PLAN OF DRILLHOLE

SCALE: 1:1000



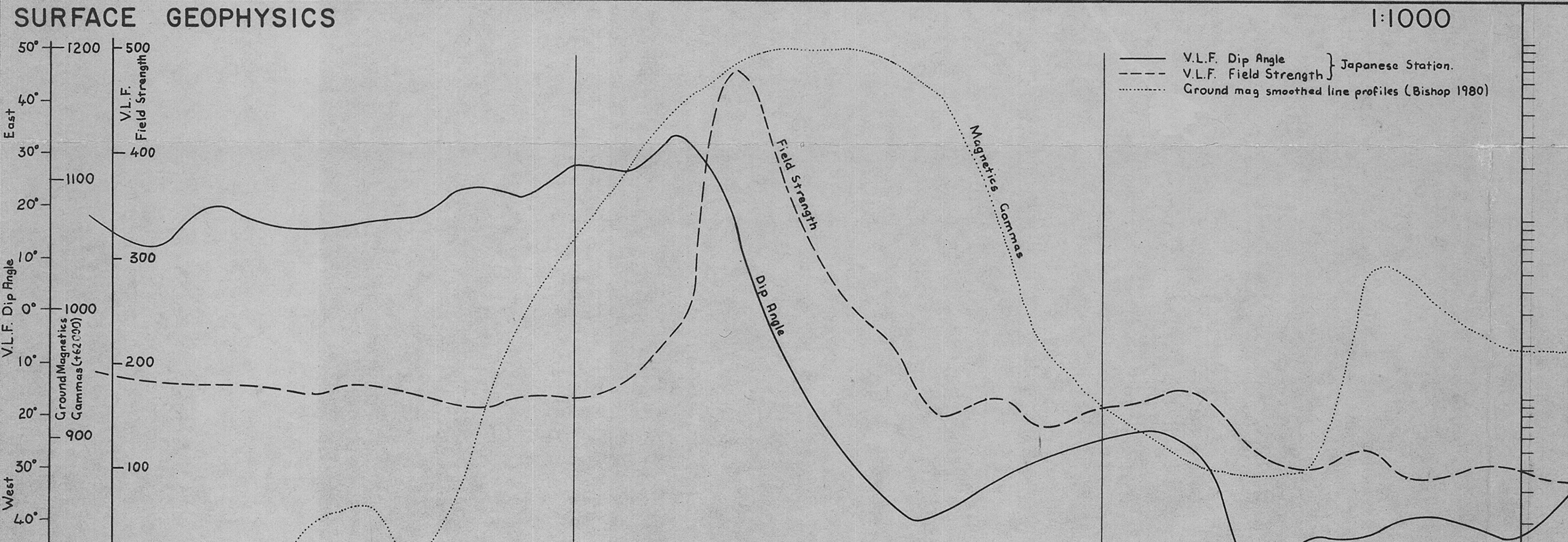
DRILLHOLE CROSS SECTION

SCALE: 1:1000



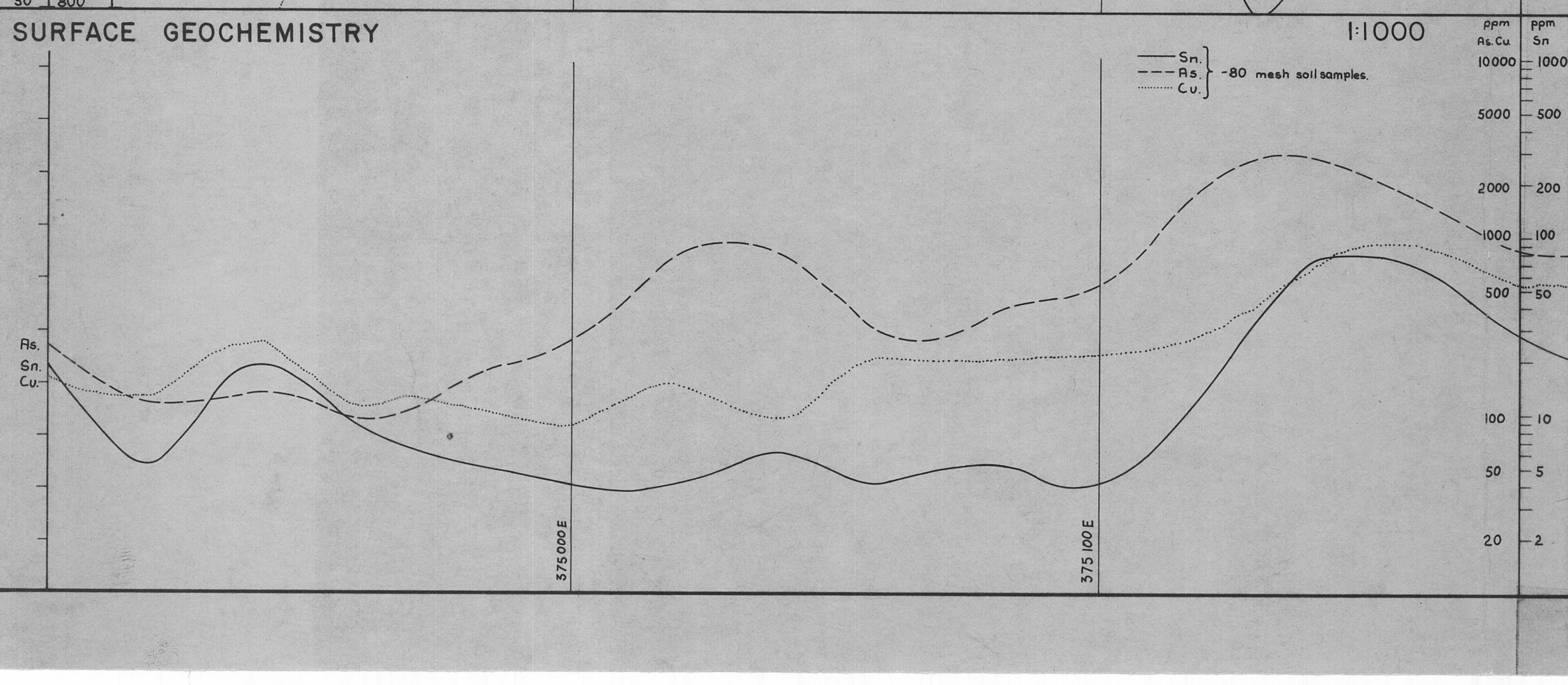
SURFACE GEOPHYSICS

1:1000



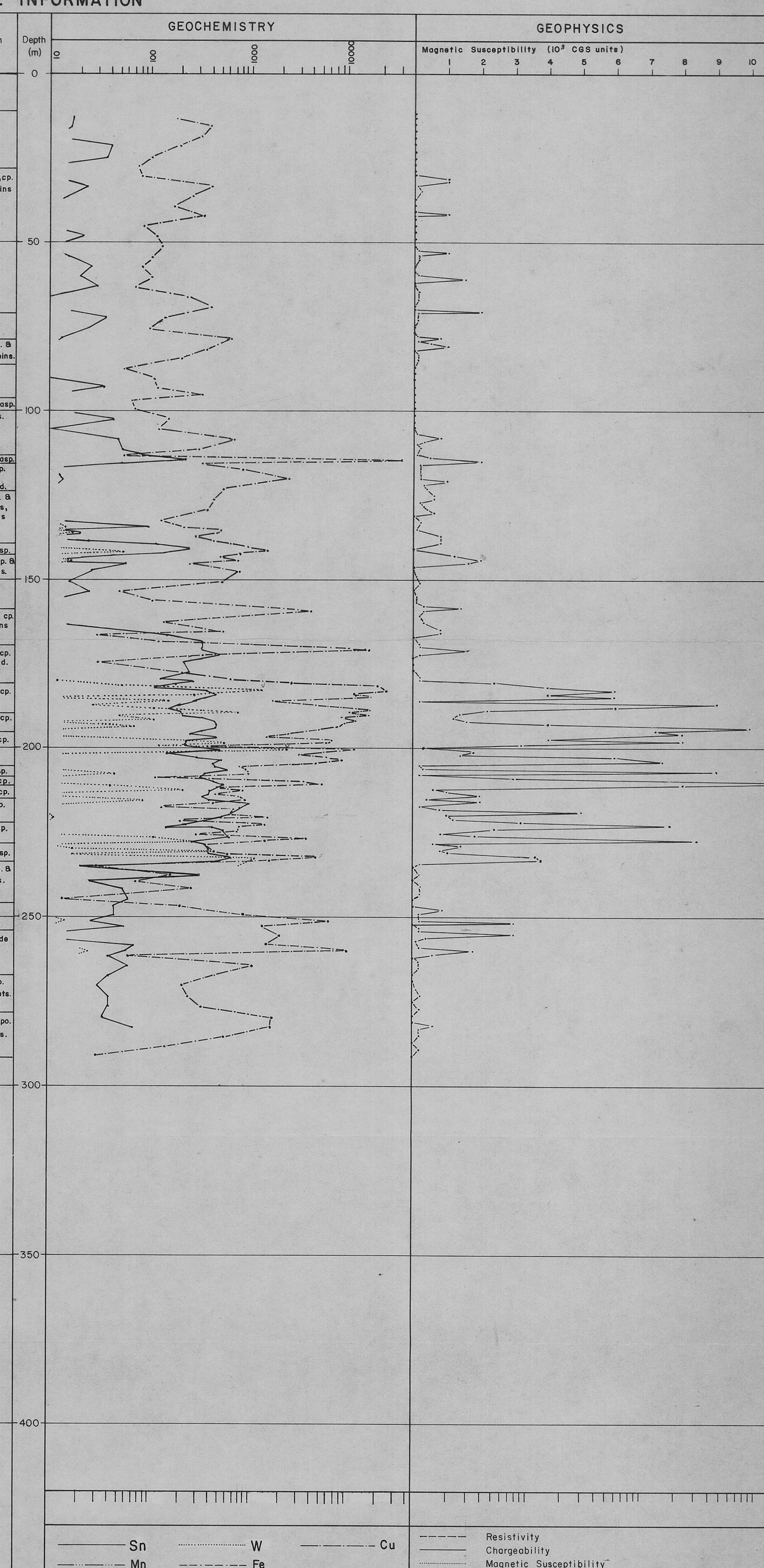
SURFACE GEOCHEMISTRY

1:1000



DOWN HOLE INFORMATION

Lithology	Mineral'n
Non core tricone	
Indurated volcanic wacke and siltstone.	N. V. M.
as above	Minor po., cp. & asp. in veins & veinlets.
as above	N. V. M.
as above	minor po., cp. & asp. in qz. veins.
as above minor actinolite alteration.	N. V. M.
Indurated siltstone & volcanic wacke.	Tr. po., cp. & asp. in qz. veins.
min. breccia.	20% po, cp, asp.
Indurated siltstone and volcanic wacke.	Minor po. & cp. in veins and disseminated.
as above minor actinolite alteration.	5% po., cp. & asp. in bands, veins, veinlets & patches.
min. breccia.	5% po, cp, asp.
Siltstone & volcanic wacke.	Minor po., cp. & asp. in veins.
Weak-moderate actinolite alteration.	
as above alteration increasing to strong.	Minor po. & cp. in bands, veins & patches.
Very altered volcanic wacke and siltstone.	Minor po. & cp. disseminated.
Mineralized calc. - silicate.	25% po. & cp.
Banded min. calc. silicate.	60% po. & cp.
Mineralized calc. silicate.	25% po., cp. & asp.
Alt. v. wacke.	5% po, cp, asp.
Banded min.	60% po. & cp.
Alt. v. wacke.	Minor po. & cp.
Actinolitic limestone.	Minor po., cp. & asp.
Banded min. calc. silicate.	30% po. & cp.
Alt. v. wacke.	5% po, cp, asp.
Volcanic wacke and siltstone.	Minor po., cp. & asp. in veins.
Siltstone, mod. alteration.	Occasional po. veins.
Siltstone and volcanic wacke weak alteration.	Rare sulphide veins.
as above	Irregular po. & cp. veinlets.
as above	Occasional po. & cp. veinlets.



SUMMARY OF COMPLETED HOLE

CO-ORDINATES	NORTHING	EASTING	R.L.
LOCAL GRID	5371704	374 964	
A.M.G.	5371702·9	374 950·5	477·3

AZIMUTH: 100° A.M.G. DIP: 64° TOTAL DEPTH: 291·4 m

COMMENCEMENT DATE: 25-5-'83 COMPLETION DATE: 7-6-'83

INTERNAL SURVEY INFORMATION

DEPTH	AZIMUTH	DIP	DEPTH	AZIMUTH	DIP
50 m	99·5° A.M.G.	63°	212 m	Pyrrhotite	60°
92 m	101° "	62°	250 m	110° A.M.G.	59°
140 m	107° "	61°	284 m	110° "	58°
178 m	Pyrrhotite	61°			

HOLE SIZE	FROM	TO	HOLE SIZE	FROM	TO
HQ	0	12 m	BQ	96 m	291·4 m
NQ	12 m	96 m			

DRILLED GEOLOGY (SUMMARISED)

DEPTH	LITHOLOGY	DEPTH	MINERALISATION AND SIGNIFICANT ASSAYS
0 - 114	Indurated volcanic wacke and siltstone.		
114 - 115·3	Mineralized brecciated siltstone.		
115·3 - 139·4	Indurated volcanic wacke and siltstone.		
139·4 - 142·4	Mineralized annealed breccia of siltstone, volcanic wacke and basalt.		
142·4 - 169·3	Volcanic wacke and siltstone with increasing actinolite - calcite alteration.		
169·3 - 181	Intensely altered volcanic wacke and siltstone.	169·3 - 246·2	Major alteration zone with several bands of semi-massive to massive pyrrhotite with subordinate chalcopyrite and arsenopyrite.
181 - 205	Pyrrhotite - axinite - actinolite rock.		
205 - 209	Intensely altered volcanic wacke.		
209 - 211·1	Pyrrhotite - actinolite rock.		
211·1 - 215	Intensely altered volcanic wacke.		
215 - 222·5	Actinolitic limestone with interbedded siltstone.		
222·5 - 229	Pyrrhotite - axinite - actinolite rock.		
229 - 246·2	Intensly altered volcanic wacke and siltstone.		
246·2 - 267·6	Siltstone and volcanic wacke with decreasing actinolite - calcite alteration.		
267·6 - 291·4	Siltstone and volcanic wacke. Minor actinolite - chlorite alteration.		

LOGGED BY: I. J. MATHISON DATE: JUNE, 1983

SAMPLE DATA

SAMPLED INTERVAL	SAMPLE NUMBERS	SAMPLE TYPE	ELEMENTS DETERMINED	LAB. METHOD
114·0 - 116·0	44995 - 6	sawn ½ core	Cu, Pb, Zn, Ag, Cr.	AAS 101
134·0 - 146·0	53603 - 14	"	As.	AAS 114
170·0 - 171·5	53624	"	Sn, S.	XRF
179·0 - 233·0	53628 - 81	"	W.	"
250·8 - 251·8	53690	"	Au.	Fire Assay
260·0 - 260·4	53694	"	Fe.	AAS
Remainder of hole	44959 - 94	Grind or fillet	Cu, Pb, Zn, Ag, Fe.	AAS 101
	44997 - 45000	"	Cr.	"
	53601, 02, 15 - 23	"	As.	AAS
	53625 - 27, 82 - 89	"	Sn.	XRF
	53691 - 93, 95 - 99	"	Mn.	AAS 101
	53700 - 05	"		

NOTES: Samples 44975, 95, 53601, 24, 25, 31, 39, 43, 69, 76, 88, 98, also analysed for a wide range of elements.

SPECIFICATIONS OF PROPOSED HOLE

CO-ORDINATES	NORTHING	EASTING	R.L.
LOCAL GRID	5 371 740 N	374 950 E	475 m a.s.l.
A.M.G.			

AZIMUTH: 90° nom. A.M.G. DIP: -60° DESIGNED DEPTH: 300 m

ESTIMATED COMMENCEMENT:

ANTICIPATED GEOLOGY

DEPTH	LITHOLOGY	DEPTH	NATURE OF TARGET AND ANTICIPATED DEPTH
		180 - 210 m	Massive pyrrhotite mineralisation within a zone of disseminated stringer mineralisation.
		250 - 280 m	Zone of semi massive and stringer pyrrhotite mineralisation.

DESIGNED BY: I. J. Mathison DATE: 9. 5. 1983

AIM OF HOLE:

To test 100m vertically below drill hole C.H.P. 228 for massive sulphide mineralisation.

NOTES:

SIROTEM results indicate that a body of massive sulphides extending down-hole from C.H.P. 228 was missed by that drill hole.

486122

5 cm

ELECTROLYTIC ZINC CO. OF A'ASIA LTD.

PROJECT: MT. BLACK TAS.

SPECIFICATIONS AND SUMMARY OF RESULTS

EXPLORATION DIAMOND DRILL HOLE No. C.H.P. 240

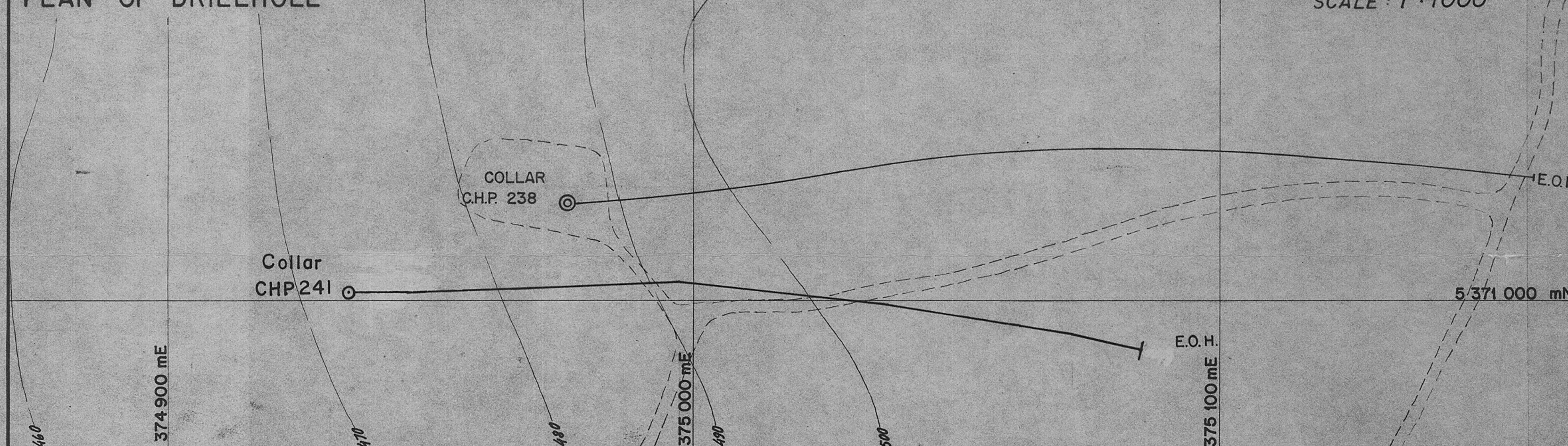
SCALE: As shown	Survey: I. J. Mat.	Revised:
Reference:	Date: 9. 5. 1983	REF. No. A1 - 504 - 0321
Drawn: Nik	Checked:	

GEOLOGICAL PLAN OF HOLE LOCALITY

SCALE 1:5000 FROM DRAWING No.: A0-504-0191

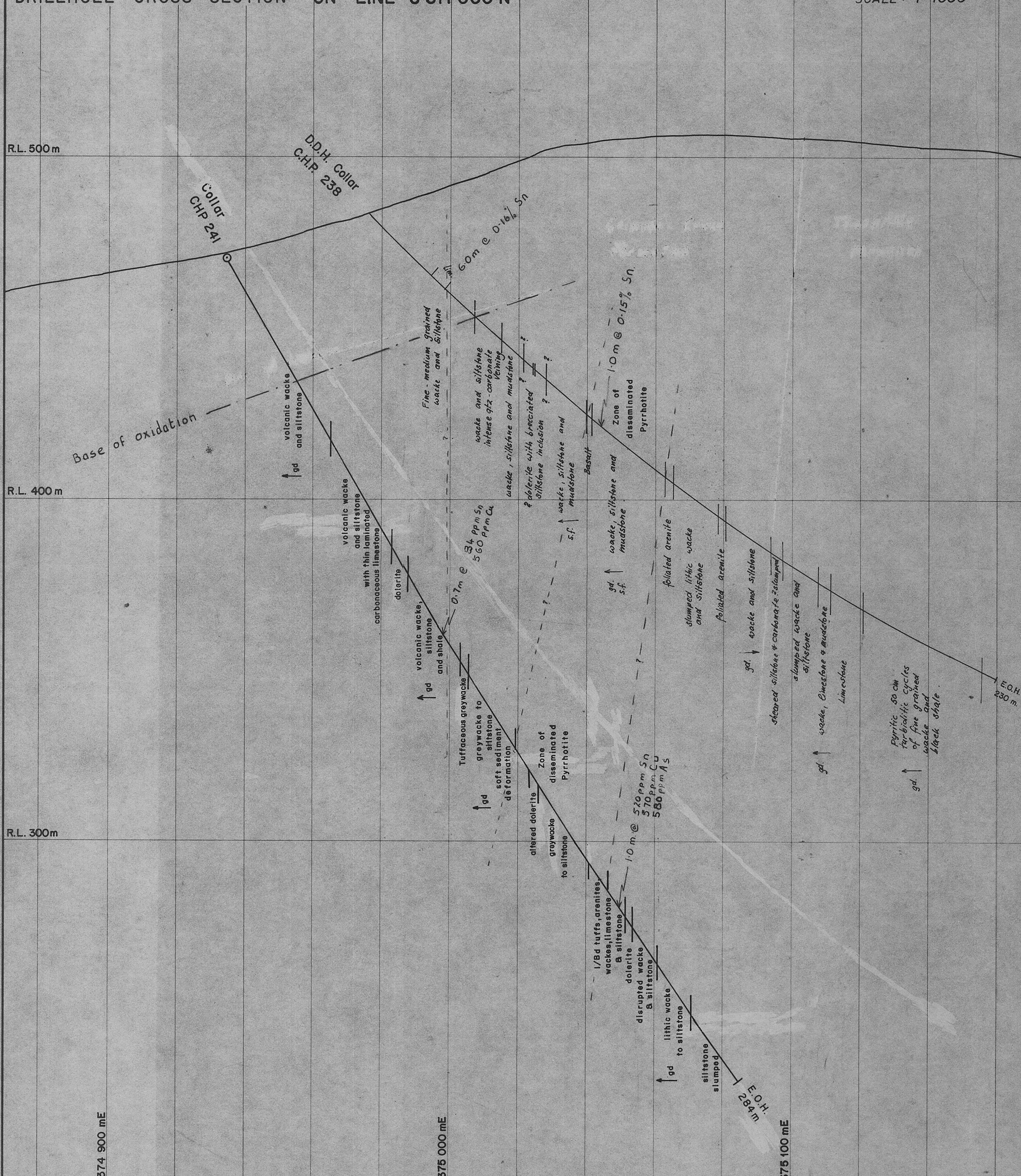
PLAN OF DRILLHOLE

SCALE 1:1000

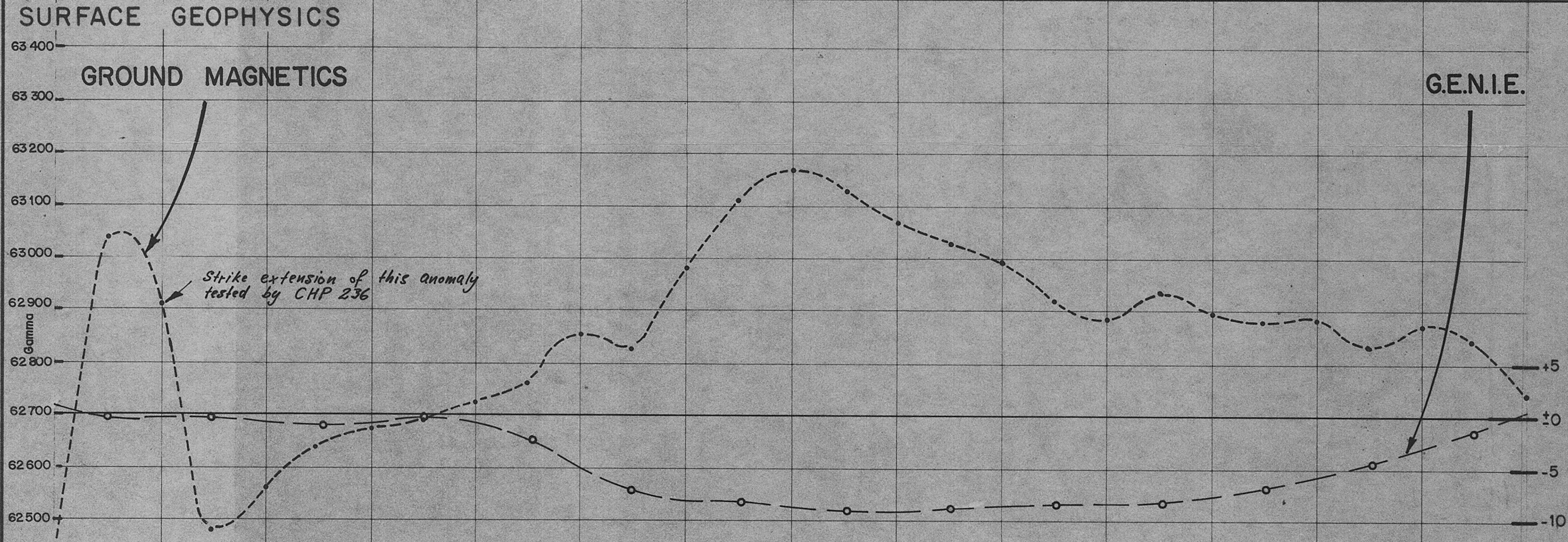


DRILLHOLE CROSS SECTION ON LINE 5 371 000 N

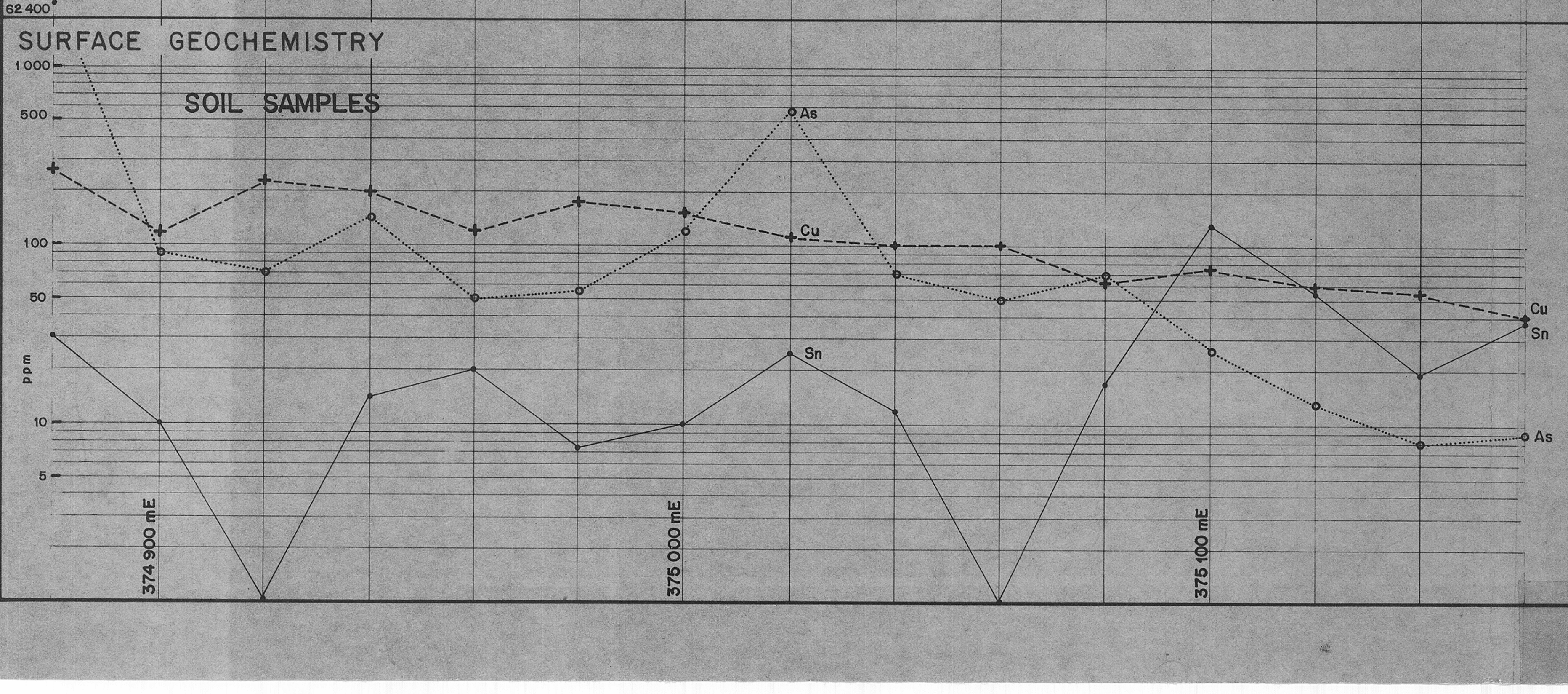
SCALE 1:1000



SURFACE GEOPHYSICS

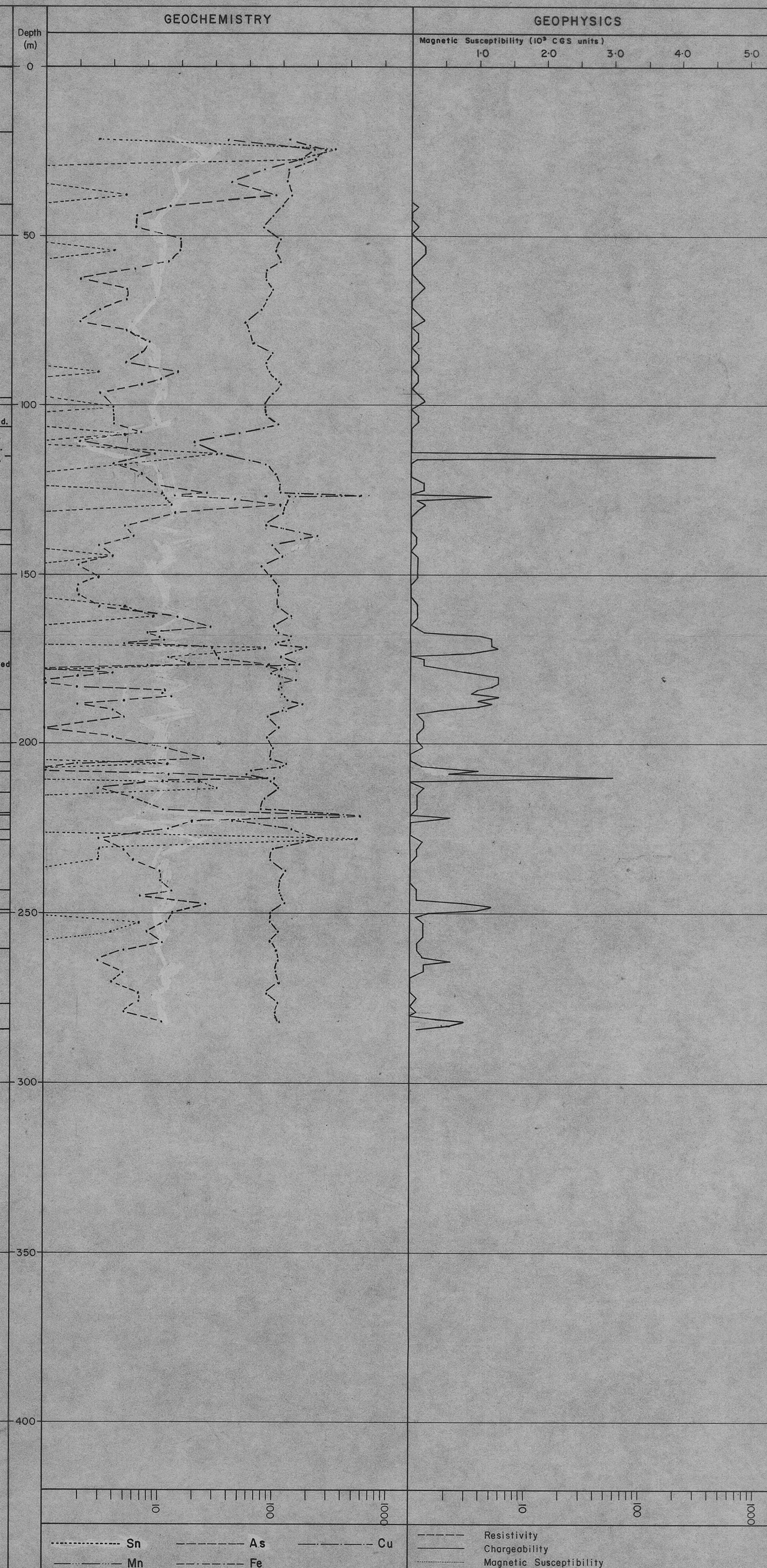


SURFACE GEOCHEMISTRY



DOWN HOLE INFORMATION

Lithology	Mineral'n
No core. Tricone.	
Rubbly oxidized wacke and siltstone.	
Grey volcanic wacke and laminated carbonaceous Limestone.	Traces po., py. & lim.
Dolerite	vfg. po. disseminated.
Grey volcanic wacke and current bedded greywacke grading to siltstone. Numerous carbonate veins.	Trace diss. po., py. & cp. mte. on shr. Trace diss. po., py. & cp.
Tuffaceous greywacke	Minor py.
Greywacke & volcanic wacke grading to siltstone. Common carbonate veins & vnlts.	
Volcanic wacke and greywacke grading to siltstone. Carbonate veins & veinlets.	5-10% po. in veinlets & disseminated blebs.
Greywacke grading to siltstone.	Tr. diss. po.
Soft sed. deformation.	
Interbedded wacke, arenite, siltstone, limestone and tuffs.	Minor po. diss. & vnlt. po. & cp.
Dolerite.	
Slumped siltstone and fine grained wacke.	
Lithic wacke grading to siltstone.	5% po.
Slumped siltstone.	Trace to minor po.
Lithic wacke to mudstone.	Minor po. diss. & vnlt.



SUMMARY OF COMPLETED HOLE

CO-ORDINATES	NORTHING	EASTING	R.L.
LOCAL GRID	5371 010	374 933	
A.M.G.	5371001·6	374 934·6	470·4

AZIMUTH: 090° AMG DIP: 60° TOTAL DEPTH: 284 m

COMMENCEMENT DATE: 8-6-'83 COMPLETION DATE: 19-6-'83

INTERNAL SURVEY INFORMATION

DEPTH	AZIMUTH	DIP	DEPTH	AZIMUTH	DIP
46m	88° AMG	60°	284m	102° AMG	54·5°
92m	87° AMG	60°			
158m	96° AMG	57·5°			
240m	99° AMG	56°			

HOLE SIZE	FROM	TO	HOLE SIZE	FROM	TO
HQ	0	20m	BQ	93m	284m
NQ	20m	93m			

DRILLED GEOLOGY (SUMMARISED)

DEPTH	LITHOLOGY	DEPTH	MINERALISATION AND SIGNIFICANT ASSAYS
0 - 98·0	Volcanic wacke grading uphole to siltstone, with thin laminated carbonaceous Limestone.		
98·0-107·5	Altered Dolerite.		
107·5-137·0	Volcanic wacke grading uphole to siltstone and shale.		
137·0-141·2	Tuffaceous greywacke.		
141·2-173·5	Greywacke grading uphole to siltstone but soft sediment deformation increasing.		
173·5-177·4	Altered Dolerite.	167·0-215·1	Minor disseminated Pyrrhotite, locally up to 10%.
177·4-206·0	Greywacke grading to siltstone with common soft sediment deformation.		
206·0-226·0	Interbedded greywacke, quartz-lithic arenite, siltstone, limestone and air full tuffs.	221·0-222·0	40% Pyrrhotite & minor chalcopyrite in veins.
226·0-229·0	Dolerite.		
229·0-243·0	Disrupted and brecciated siltstone and fine grained wacke.		
243·0-260·5	Lithic wacke grading uphole to siltstone.	246·0-249·0	10% Pyrrhotite blebs & veinlets.
260·5-284·0	Siltstone and minor lithic wacke soft sediment brecciation and deformation widespread.		

LOGGED BY: I. J. MATHISON DATE: JUNE, 1983

SAMPLE DATA

SAMPLED INTERVAL	SAMPLE NUMBERS	SAMPLE TYPE	ELEMENTS DETERMINED	LAB. METHOD
20 - 126·5	53706-41	Grind/Fillet	Cu, Pb, Zn, Ag, Fe.	AAS 101
126·5-128	53742, 43	½ core	Mn, Cr.	AAS 101
128 - 167	53744-56	Grind/Fillet	As.	AAS 114
167-173·5	53757-62	½ core	Sn.	XRF
173·5-177·4	53763, 64	Grind/Fillet		
177·4 - 190·5	53765-77	½ core		
190·5-206	53778-82	Grind/Fillet		
206 - 212	53783-88	½ core		
212 - 221	53789-91	Grind/Fillet		
221-222	53792	½ core		
222-284	53793-814	Grind/Fillet		
70·3	53370	½ core	Thin Section	
81·0	53371	"	" "	
106·0	53372	"	" "	
138·6	53374	"	" "	
175·5	53377	"	" "	
189·0	53375	"	" "	

NOTES:

SPECIFICATIONS OF PROPOSED HOLE

CO-ORDINATES	NORTHING	EASTING	R.L.
LOCAL GRID A.M.G.	5 371 000mN	374 940 mE	470 m

AZIMUTH: 090° nom.A.M.G. DIP: 60° DESIGNED DEPTH: 300 m

ESTIMATED COMMENCEMENT:

ANTICIPATED GEOLOGY

DEPTH	LITHOLOGY	DEPTH	NATURE OF TARGET AND ANTICIPATED DEPTH
0-220m	Variably altered volcanic wackes and siltstones	90-110m	Stringer to semi massive pyrrhotite
220-300m	Limestone interbedded with lithic wacke and pyritic black shale.	170-180 m	Stringer pyrrhotite mineralisation
		220-250 m	Sulphide mineralisation replacing limestone.

DESIGNED BY: I. J. Mathison DATE: 9. 5. 1983

AIM OF HOLE:

To test below C.H.P. 238 for extensions of tin mineralisation intersected in that hole.

NOTES:

486123

5 cm

ELECTROLYTIC ZINC CO. OF A'ASIA LTD.

PROJECT: MT. BLACK TAS.

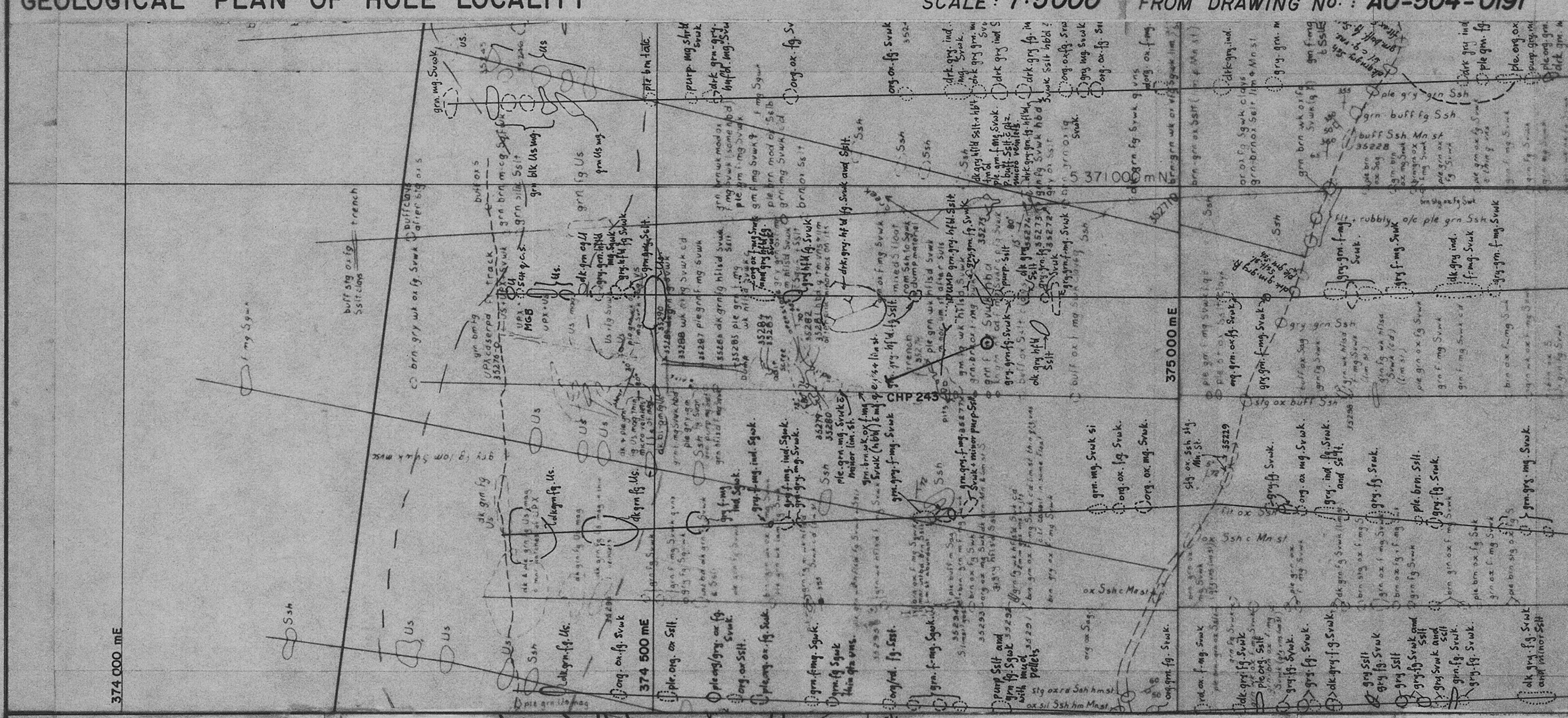
SPECIFICATIONS AND SUMMARY OF RESULTS

EXPLORATION DIAMOND DRILL HOLE No. CHP 241

SCALE: As shown	Survey: I. J. Mat.	Revised:
Reference:	Date: 9.5.1983	REF. No. A1-504-0320
Drawn: Nik	Checked:	

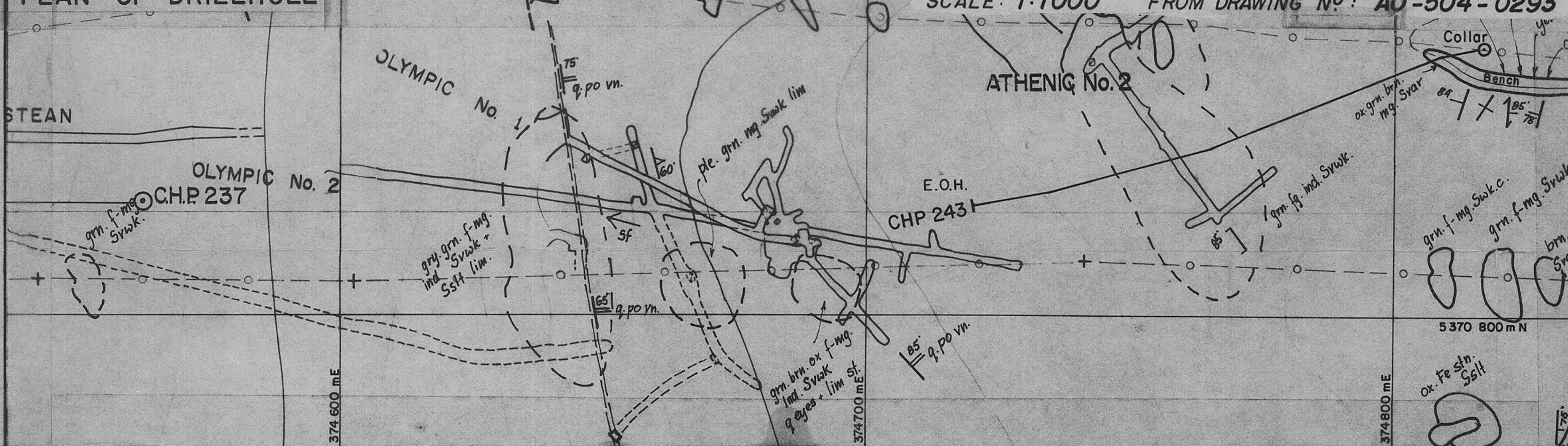
GEOLOGICAL PLAN OF HOLE LOCALITY

SCALE: 1:5000 FROM DRAWING No: A0-504-0191



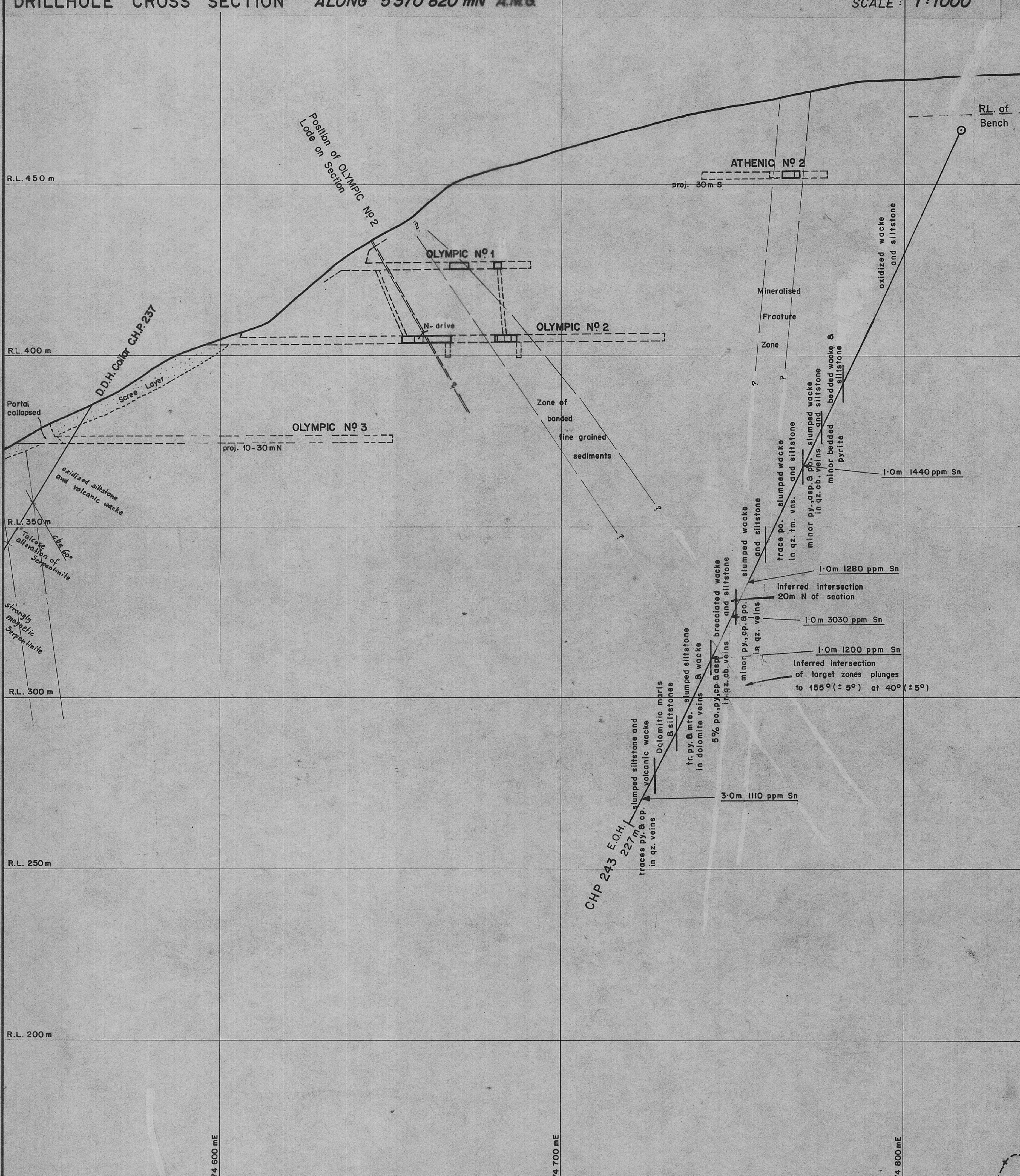
PLAN OF DRILLHOLE

SCALE: 1:1000 FROM DRAWING No: A0-504-0293

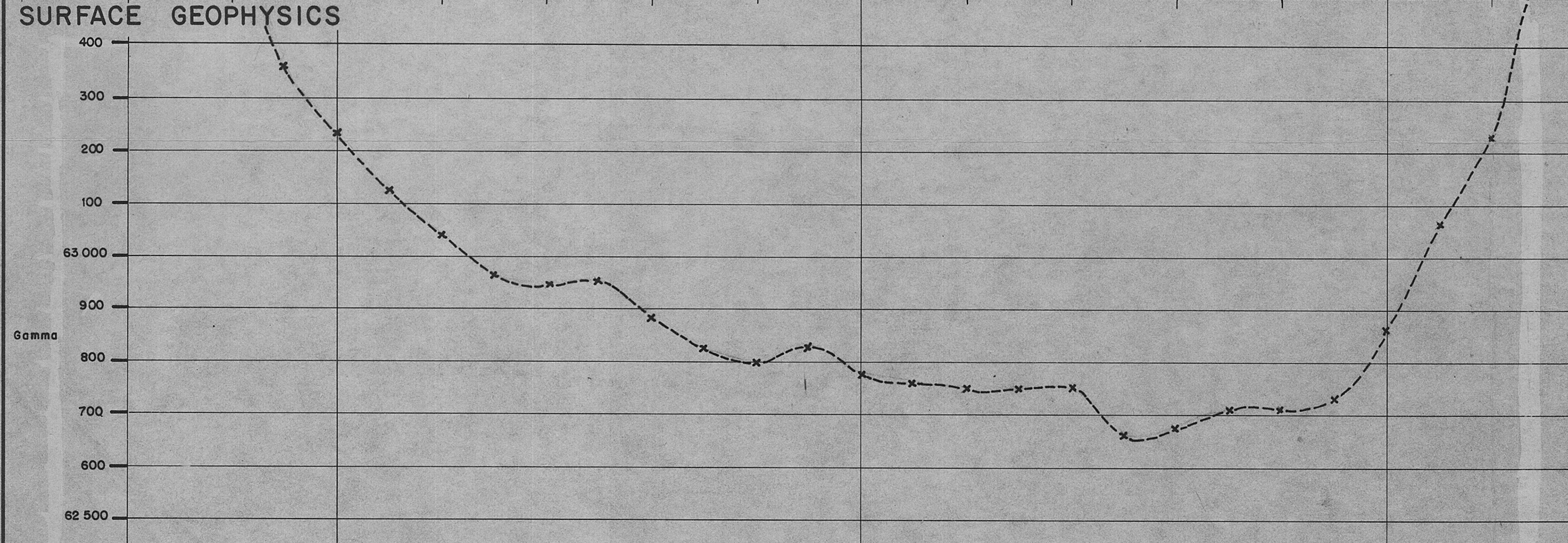


DRILLHOLE CROSS SECTION ALONG 5 370 820 mN A.M.G.

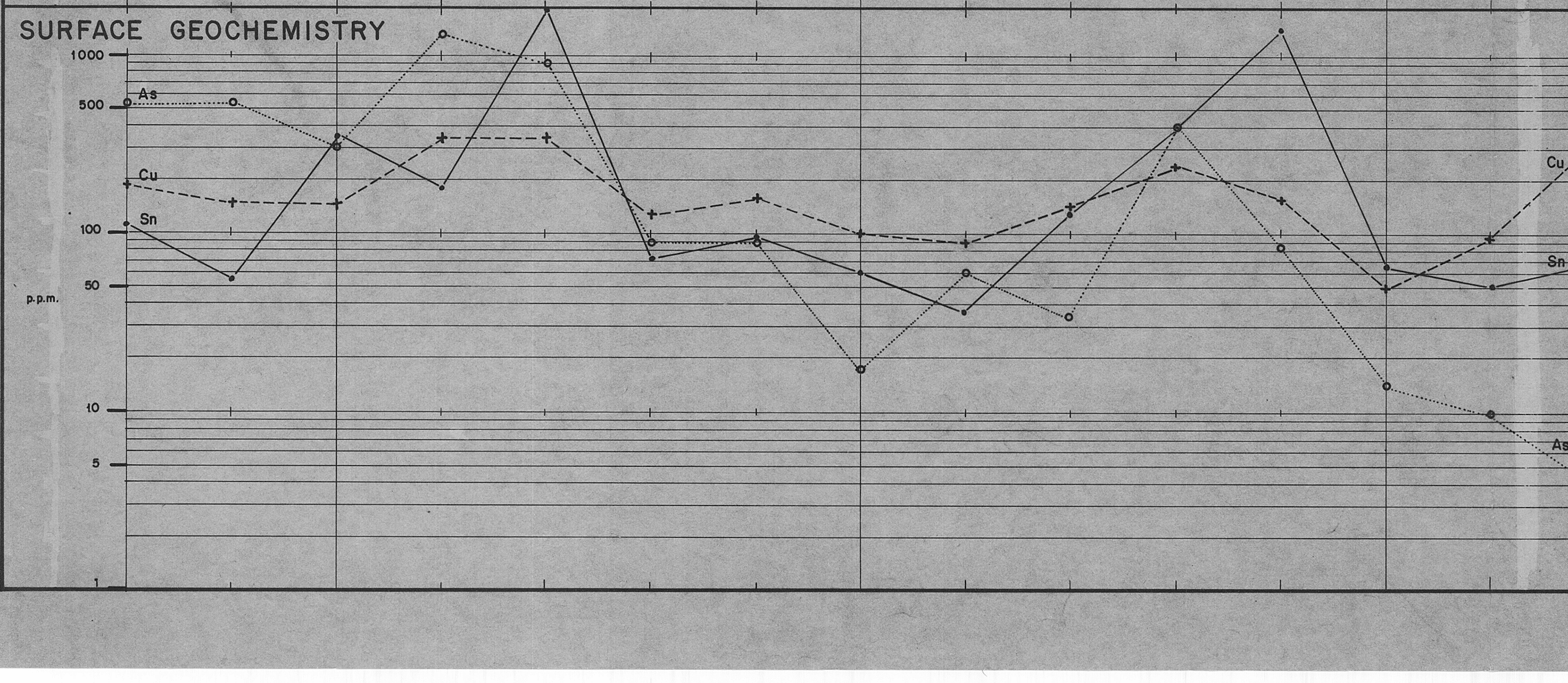
SCALE: 1:1000



SURFACE GEOPHYSICS

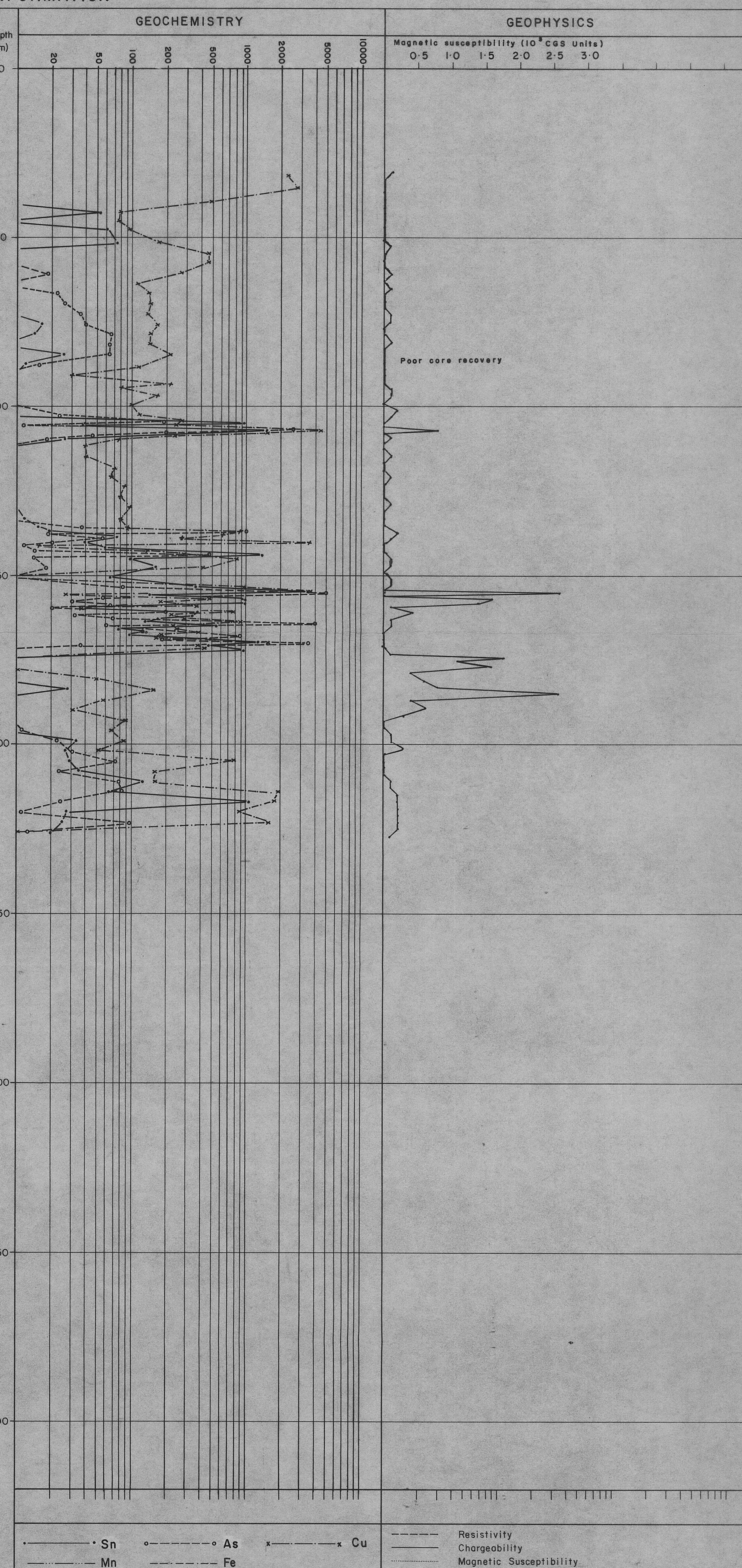


SURFACE GEOCHEMISTRY



DOWN HOLE INFORMATION

Lithology	Mineral'n
No core, Tricone.	
Oxidized siltstone and volcanic wacke.	Sparse thin quartz lim. veins.
Siltstone and volcanic wacke.	Thin pyrite beds at 79 & 81m.
Brecciated & slumped volcanic wacke & siltstone.	
Brecciated siltstone and volcanic wacke.	Minor leached py., po. & asp. in veins & veinlets.
Pale grey siltstone and lithic wacke. slumped.	Irregular tourmaline veinlets.
Slumped volcanic wacke & siltstone with later tectonic brecciation & rehealing.	5% po., cp. & in qz. veins.
	Scattered thin qz., py & cp vns.
	5% po., cp., py. & asp. in qz. cb. veins.
Purple grey siltstone and green grey volcanic wacke-slumped.	Traces po., py. & mte. in dolomite veins.
Thin bedded dolomitic marls and siltstone - chlorite vnlts.	— qz, cp, po vn. —
Slumped siltstone and volcanic wacke.	Occasional qz., po. & cp. veins.
Slumped siltstone & v. wacke.	Chlorite veinlets.



SUMMARY OF COMPLETED HOLE

CO-ORDINATES	NORTHING	EASTING	R.L.
LOCAL GRID	5 370 847	374 813	
A.M.G.	5 370 851·5	374 816·8	466·0

AZIMUTH: 257° DIP: 65° TOTAL DEPTH: 227 m

COMMENCEMENT DATE: 21-6-'83 COMPLETION DATE: 5-7-'83

INTERNAL SURVEY INFORMATION

DEPTH	AZIMUTH	DIP	DEPTH	AZIMUTH	DIP
38m	248° AMG	65°			
86m	248° AMG	64·5°			
160m	254° AMG	64·5°			
225m	261° AMG	63·5°			

HOLE SIZE	FROM	TO	HOLE SIZE	FROM	TO
HQ	0	30m	BQ	117m	227m
NQ	30m	117m			

DRILLED GEOLOGY (SUMMARISED)

DEPTH	LITHOLOGY	DEPTH	MINERALISATION AND SIGNIFICANT ASSAYS
0-68·6	Oxidized volcanic wacke and siltstone.		
68·6-82·0	Siltstone and volcanic wacke.		
82·0-96·0	Slumped siltstone and volcanic wacke. Irregular quartz carbonate veins.		
96·0-109·4	Slumped volcanic wacke and siltstone.	104·0-109·4 106·0-107·0	Veinlets of pyrite & arsonopyrite. 1·0m at 1440 ppm Sn, 4300 ppm Cu.
109·4-133·4	Slumped volcanic wacke and siltstone, common irregular carbonate veins.		
133·4-170·9	Slumped volcanic wacke and siltstone. Brecciation rehealed by quartz-carbonate-sulphide veins.	133·6-170·9 143·0-144·0 154·0-155·0	Disseminated & veinlet Pyrrhotite, pyrite, chalcopyrite, arsonopyrite & magnetite. 1·0m at 1280 ppm Sn. 1·0m at 3030 ppm, 3550 ppm Cu, 5000 ppm As.
170·9-196·0	Slumped volcanic wacke and siltstone. Brecciation rehealed by carbonate veins.	169·0-170·0	1·0m at 1200 ppm Sn, 3500 ppm As.
196·0-209·0	Thin bedded dolomitic marl and marly siltstone.	211·0-221·0	Rare thin veins of pyrite, chalcopyrite & pyrrhotite.
209·0-221·0	Slumped siltstone and volcanic wacke. Weak chlorite alteration.	215·0-218·0	3·0m at 1110 ppm Sn, 1850 ppm Cu.
221·0-227·0	Slumped siltstone and volcanic wacke-chlorite veinlets common.		

LOGGED BY: I. J. MATHISON DATE: JULY, 1983

SAMPLE DATA

SAMPLED INTERVAL	SAMPLE NUMBERS	SAMPLE TYPE	ELEMENTS DETERMINED	LAB. METHOD
30 - 104	53815 - 53839	Grind/Fillet	Cu, Pb, Zn, Fe, Mn, Ag, Cr.	AAS 101
104 - 110	53840 - 53845	½ core	As.	AAS 114
110 - 135	53846 - 53853	Grind/Fillet	Sn.	XRF.
135 - 145·4	53854 - 53862	½ core		
145·4 - 154	53863 - 53865	Grind/Fillet		
154 - 171	53866 - 53882	½ core		
171 - 227	53883 - 53900 53970	Grind/Fillet		
218·0	53376	½ core	Thin section.	

NOTES:

SPECIFICATIONS OF PROPOSED HOLE

CO-ORDINATES	NORTHING	EASTING	R.L.
LOCAL GRID A.M.G.	5 370 845 N	374 814 E	470 m

AZIMUTH: 262° A.M.G. DIP: 65° DESIGNED DEPTH: 200 m

ESTIMATED COMMENCEMENT:

ANTICIPATED GEOLOGY

DEPTH	LITHOLOGY	DEPTH	NATURE OF TARGET AND ANTICIPATED DEPTH
0 - 150m	Variably altered volcanogene wackes and siltstones.	130 - 150m	Stanniferous pyrite veins and veinlets in brecciated siltstone and wacke.
140 - 160m	Thin banded fine grained sediments ? limestone.	140 - 160m	Pyrite replacement of banded sediments.
160 - 200m	Variably altered volcanogene wackes and siltstones.		

DESIGNED BY: I. Mathison DATE: 24.5.1983

AIM OF HOLE:

To test downward continuations of mineralised zones exposed in the ATHENIC No 2 and OLYMPIC No 2 adits.

NOTES:

Where sampled in the adits both target zones carry patchy but economically significant tin grades (up to 3% Sn).
Tin occurs predominantly as fine grained cassiterite. (See E·Z Report 148 Appendix B)

5 cm

ELECTROLYTIC ZINC CO. OF A'ASIA LTD.

PROJECT: MT. BLACK TAS.

SPECIFICATIONS AND SUMMARY OF RESULTS

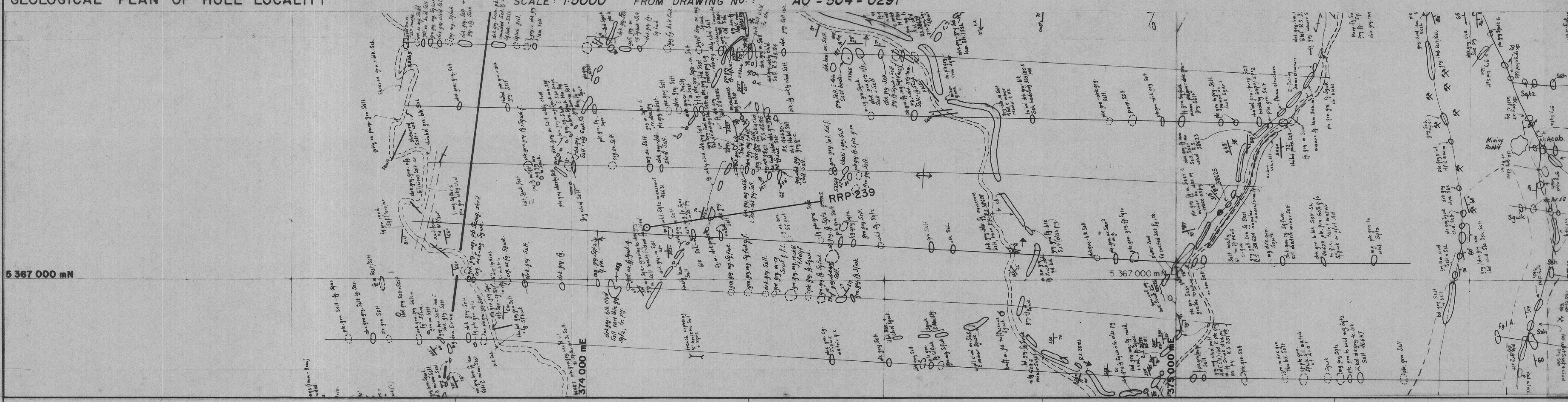
EXPLORATION DIAMOND DRILL HOLE No. CHP 243

486124

SCALE: As shown	Survey: I. Mat.	Revised:
Reference:	Date: 20.5.1983	REF. No. A1 - 504 - 0325
Drawn: Nik	Checked:	

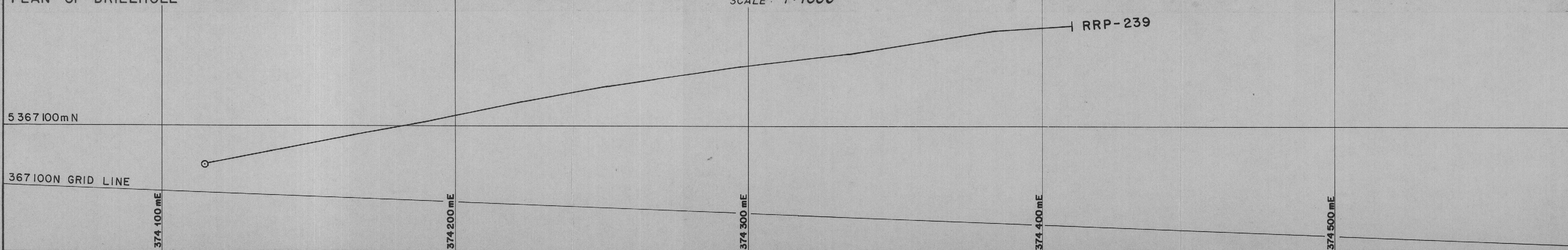
GEOLOGICAL PLAN OF HOLE LOCALITY

SCALE 1:5000 FROM DRAWING No. AO-504-0291



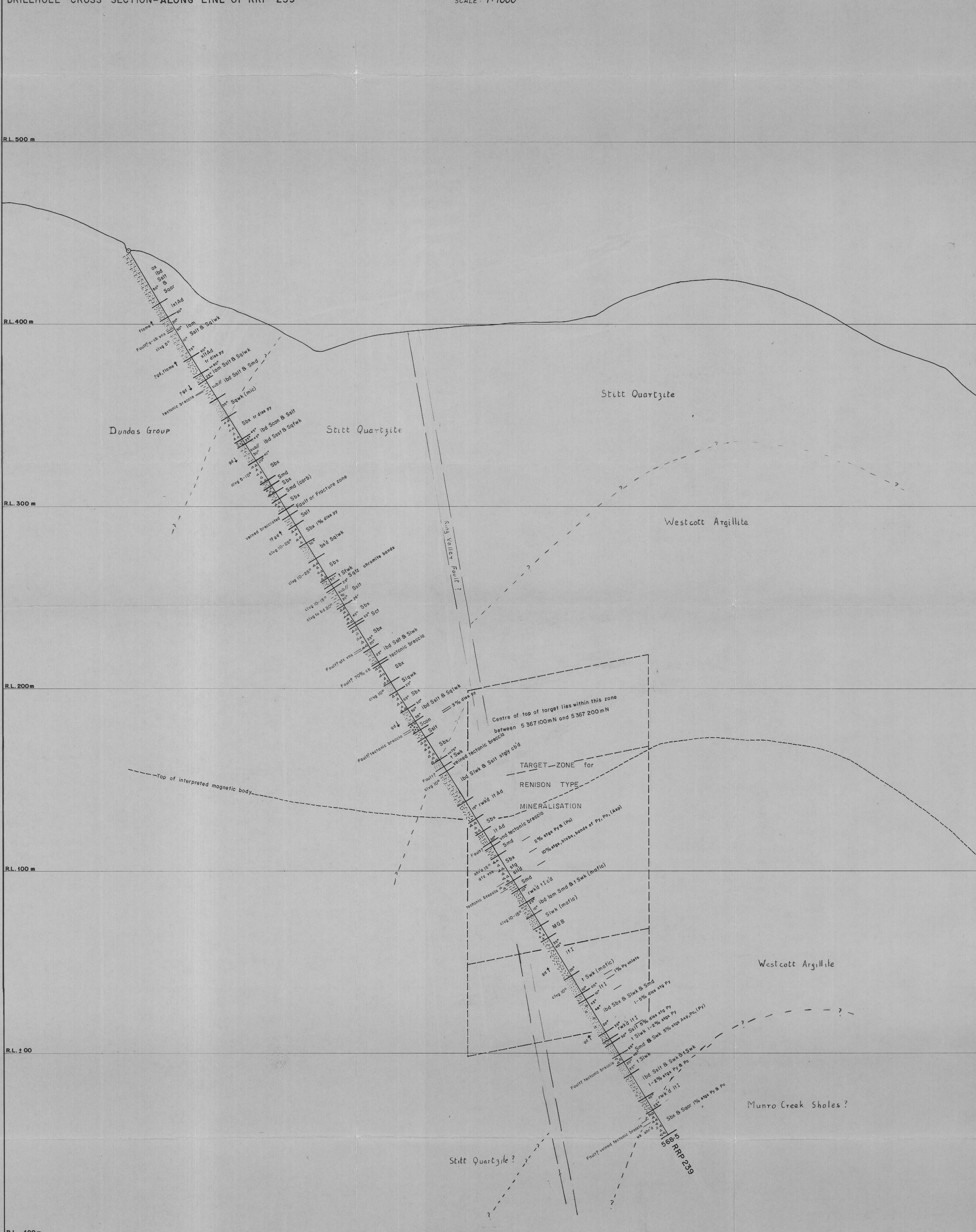
PLAN OF DRILLHOLE

SCALE 1:1000

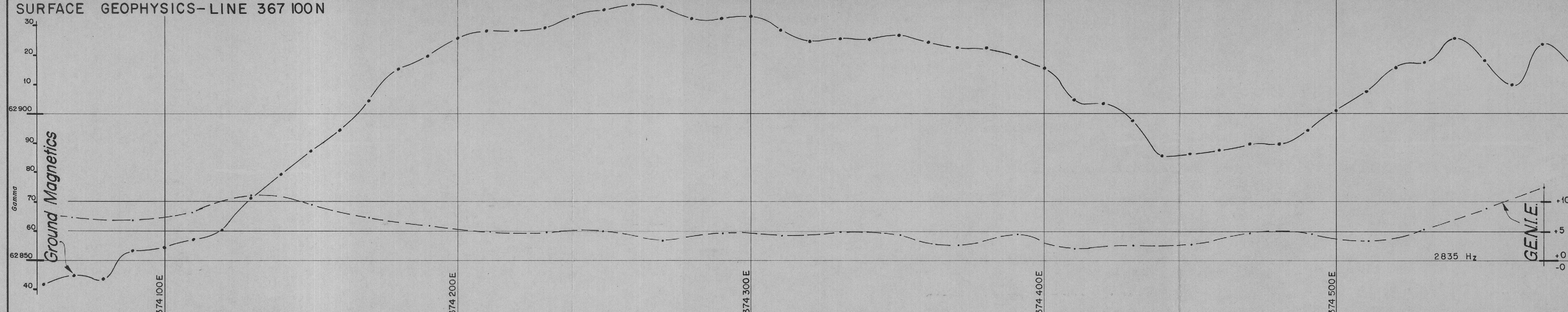


DRILLHOLE CROSS SECTION-ALONG LINE OF RRP-239

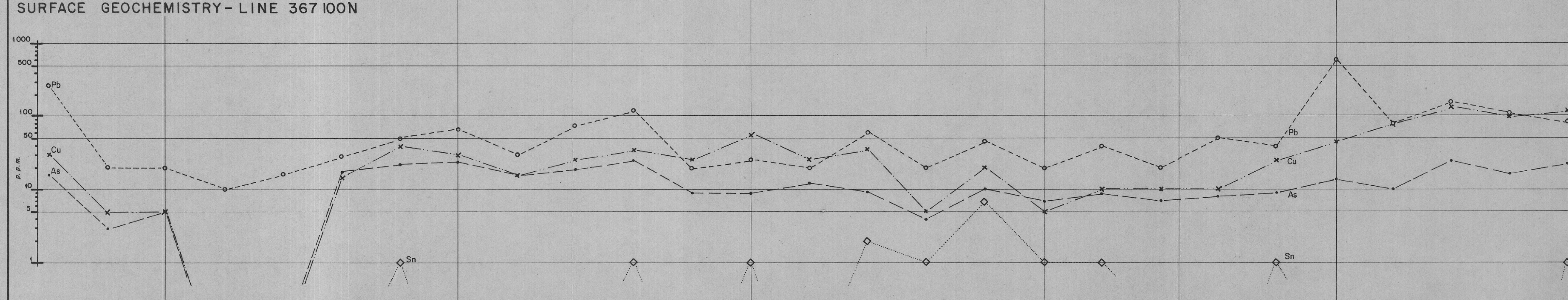
SCALE 1:1000



SURFACE GEOPHYSICS-LINE 367 100N

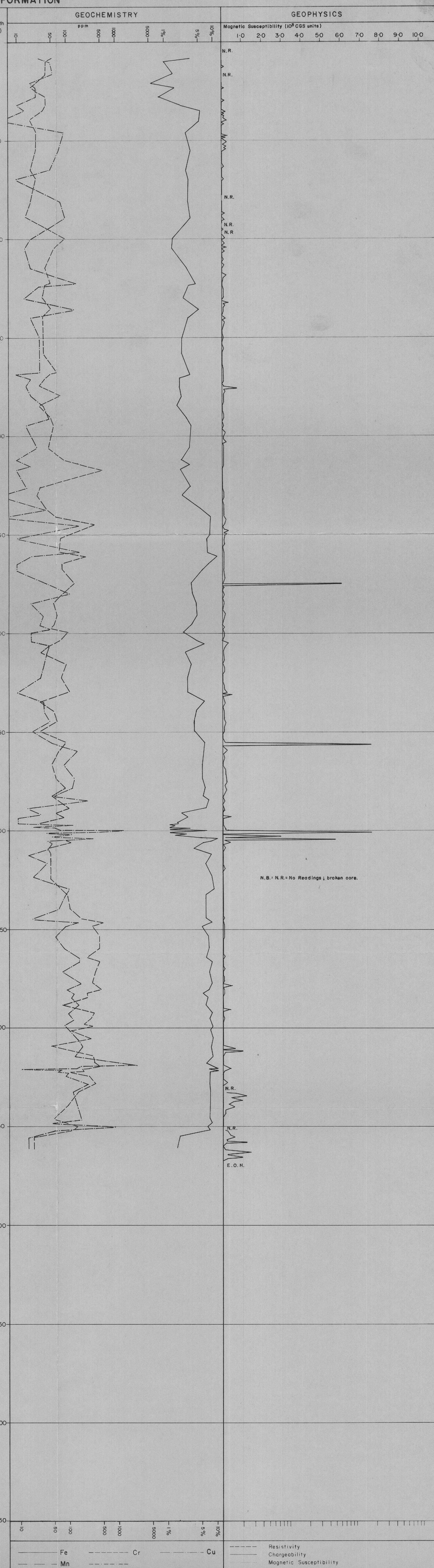


SURFACE GEOCHEMISTRY-LINE 367 100N



DOWN HOLE INFORMATION

Lithology	Mineral'n	Depth (m)
oxidised Siltstones and Quartz Arenites		0
Siltstones and Quartz Wacke's interbedded with Felsic Lithic Tuffs		50
Sedimentary slump Breccia, mass flow Breccias and interbedded Mudstones		100–150
Fault zone		
Interbedded Sedimentary Breccias, Siltstones and Lithic Wacke's	1% diss Py	200
quartzite	chromite bnds	
Sedimentary Breccias with interbedded Siltstones, Lithic Wackes and minor Cherts		250
Interbedded Polymict Conglomerates, Siltstones and slump breccias	3% diss Py	300
Interbedded reworked Felsic Tuffs, Lithic Wackes and Sedimentary Breccias		350
Silicified Sedimentary breccia and Mudstone	2% stringers Py & Po	
tectonic breccia	10% stgs, diss bands Py, Po, Asp	400
Reworked intermediate Lithic Tuffs and Mudstones		
Altered Gabbro		450
Reworked Intermediate Lithic Tuffs and Tuffaceous Wackes interbedded with minor Mudstones and Sedimentary Breccias	1% Py vnlets	
	1–5% diss and stg Py	500
	5% stg Py	
	1–2% stg Py	
	5% stgs Asp, Py	
	1–2% stgs Py, Po	550
Sedimentary slump breccia and quartz arenite	1% stgs, diss and veinlets of Py & Po	
End of Hole	568.5 m	



SUMMARY OF COMPLETED HOLE

CO-ORDINATES	NORTHING	EASTING	R.L.
LOCAL GRID	5 367 110	374 118	
A.M.G.	5 367 087.4	374 114.5	440.9

AZIMUTH 080° AMG DIP 60° TOTAL DEPTH 56

COMMENCEMENT DATE 3-6-'83 COMPLETION DATE 16-7-'83

INTERNAL SURVEY INFORMATION

DEPTH	AZIMUTH	DIP	DEPTH	AZIMUTH	DIP
43 m	079° AMG	60°	294 m	082.5° AMG	58°
85 m	079° AMG	58.5°	330 m	081° AMG	58°
118 m	080° AMG	58°	385 m	083° AMG	58.5°
180 m	078° AMG	59°	472.5 m	081° AMG	59°
250 m	080° AMG	58.5	565 m	086° AMG	59.2°

HOLE SIZE	FROM	TO	HOLE SIZE	FROM	TO
HQ	0	90.0	BQ	345.0	568.5
NQ	90.0	345.0			

DRILLED GEOLOGY (SUMMARISED)

DEPTH	LITHOLOGY	DEPTH	MINERALISATION AND SIGNIFICANT ASSAYS
0 - 33.5	Oxidised Siltstones and Quartz Arenites.		
33.5 - 106.4	Siltstones and Quartz Wackes interbedded with Felsic Lithic Tuffs.		
106.4 - 166.5	Sedimentary slump Breccias and interbedded Mudstones.		
166.5 - 170.4	Veined brecciated Fault zone		
170.4 - 297.0	Sedimentary slump Breccias and interbedded fine grained sediments.		
297.0 - 328.5	Interbedded polymict Conglomerates, Siltstones and slump Breccias.		
328.5 - 394.7	Reworked Felsic Tuffs, Lithic Wackes, and Sedimentary Breccias.		
394.7 - 405.3	Strongly silicified mineralised sediments against a Tectonic Breccia.	394.7 - 399.4	2% stringers and blobs Py & (Po).
		399.4 - 405.3	10% " " " Py, Po & Asp.
405.3 - 435.4	Reworked intermediate Tuffs and Mudstones.	486.3 - 521.6	1-5% disseminated Py.
435.4 - 443.5	Altered leuco gabbro.	521.6 - 521.95	40% Asp veins.
		521.95 - 523.3	3% disseminated Py.
443.5 - 554.3	Reworked intermediate Tuffs, Tuffaceous Wackes and minor Mudstones and Breccias.	554.3 - 568.5	1-3% disseminations, stringers and thin veinlets Py & Po.
554.3 - 568.5	Sedimentary slump Breccias and Quartz Arenites.		

LOGGED BY: I. McDONALD DATE: SEPT. 1983

SAMPLE DATA

SAMPLED INTERVAL	SAMPLE NUMBERS	SAMPLE TYPE	ELEMENTS DETERMINED	LAB. METHOD
0-397.4	57924-57999	0.5m fillets	Cu, Pb, Zn, Fe, Mn, Ag, Cr.	108, AAS
405.3-518.7	58000-58029	" "	As.	114, AAS
523.3-568.5	58030-58039	" "	Sn.	402, XRF
397.4-405.3	57902-57916	½ core splits	Cu, Pb, Zn, Fe, Mn, Ag, Cr.	108, AAS
518.7-523.3	57917-57923	" "	As.	114, AAS
			Sn, W.	402, XRF
			Au.	Fire Assay
	43861-43867	½ core	Thin section-Petrology.	

NOTES:
Thin sections - Refer to C.M.S. report 83/10/14

SPECIFICATIONS OF PROPOSED HOLE

CO-ORDINATES	NORTHING	EASTING	R.L.
LOCAL GRID A.M.G.	5 367 110 mN	374 120 mE	437 m

AZIMUTH 080° A.M.G. DIP 60° DESIGNED DEPTH 500 m.

ESTIMATED COMMENCEMENT 10. 5. 1983

ANTICIPATED GEOLOGY

DEPTH	LITHOLOGY	DEPTH	NATURE OF TARGET AND ANTICIPATED DEPTH
0 - 100 m	Quartz wackes, siltstones + dark grey shales.		
100 - 300m	Siltstones, quartz-feldspar wackes and interbedded dacitic volcanics.		
300 - 500m	Dolomite, conglomerate and altered basic volcanics overlying basement rocks (? Concert Schists ?)	350 - 450 m	Stratabound pyrrhotite replacement bodies

DESIGNED BY: I. Mathison DATE: 5. 5. 1983

AIM OF HOLE:
To test the Ring River Magnetic Anomaly for Renison style mineralisation.

NOTES:

486125

5 cm

ELECTROLYTIC ZINC CO. OF A'ASIA LTD.

PROJECT: MT. BLACK J.V. TAS.

SPECIFICATIONS AND SUMMARY OF RESULTS

EXPLORATION DIAMOND DRILL HOLE No. R.R.P. 239

SCALE: As shown	Survey: I. Mat.	Revised:
Reference:	Date: 4.5.1983	REF. No. AO-504-0319
Drawn: NIK	Checked:	

TCR 83-2068 Vol. 2