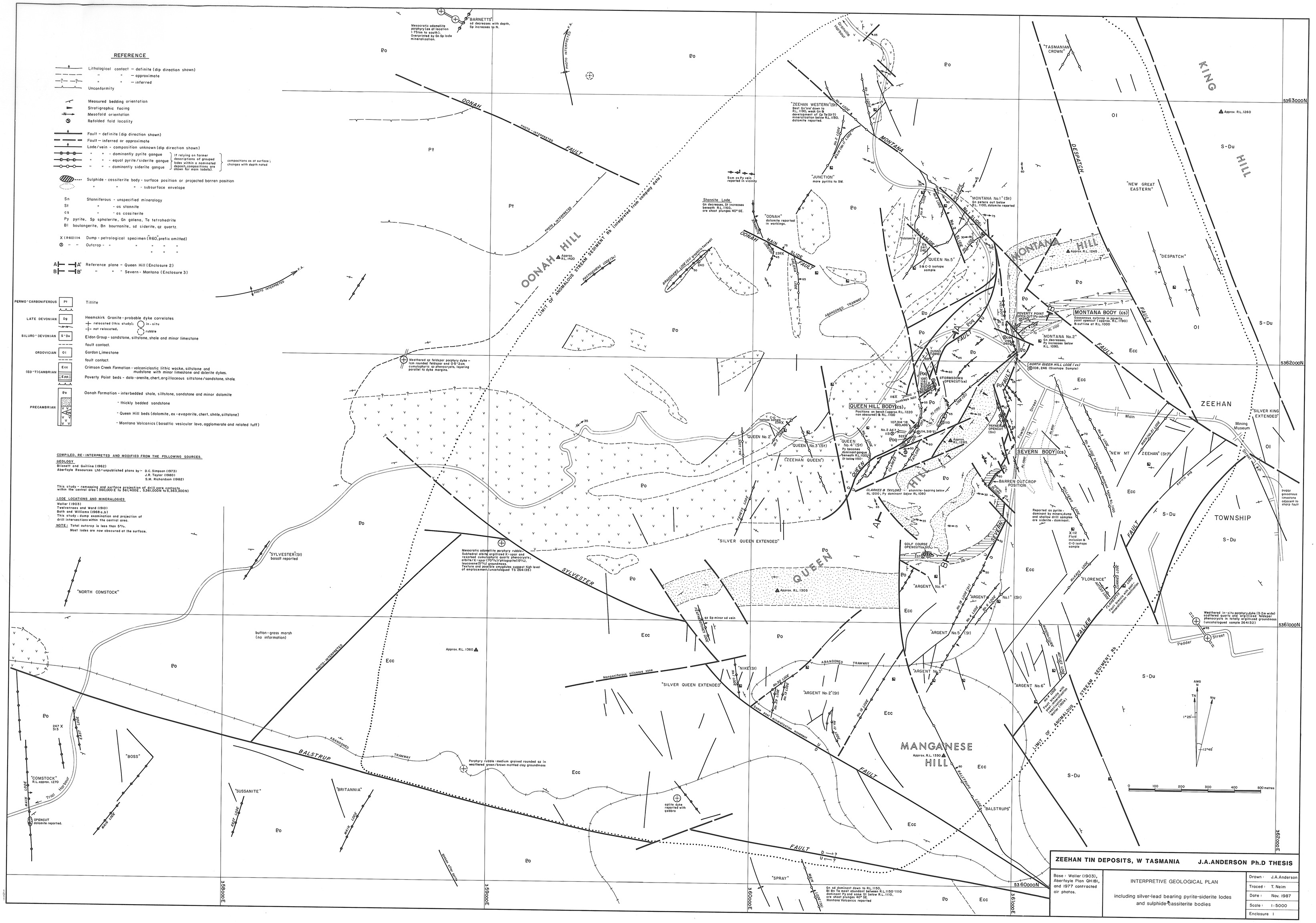
REFERENCE
Lithological contact – definite (dip direction shown)
" " – approximate
" " – inferred
Unconformity
Measured bedding orientation
Stratigraphic facing
Mesofold orientation
Refolded fold locality
Fault – definite (dip direction shown)
Fault – inferred or approximate
Lode/vein – composition unknown (dip direction shown)
" " – dominantly pyrite gangue
" " – equal pyrite/siderite gangue
" " – dominantly siderite gangue
(relying on former descriptions of grouped lodes within a nominated deposit; compositions, are shown for main lode(s).)
compositions as at surface; changes with depth noted
Sulphide – cassiterite body – surface position or projected barren position
" " " – subsurface envelope
Sn Stanniferous – unspecified mineralogy
St " – as stannite
cs " – as cassiterite
Py pyrite, Sp sphalerite, Gn galena, Te tetrahedrite
Bl boulangerite, Bn bournonite, sd siderite, qz quartz.
X (R60) 114 Dump – petrological specimen (R60, prefix omitted)
Outcrop – " " " " "
Reference plane – Queen Hill (Enclosure 2)
" " – Severn – Montana (Enclosure 3)
PERMO-CARBONIFEROUS Pt Tillite
LATE DEVONIAN Dg Heemskirk Granite – probable dyke correlates
relocated (this study); in-situ
not relocated; rubble
SILURO-DEVONIAN S-Du Eldon Group – sandstone, siltstone, shale and minor limestone
fault contact.
ORDOVICIAN Ol Gordon Limestone
fault contact.
(EO-?)CAMBRIAN Ecc Crimson Creek Formation – volcaniclastic lithic wacke, siltstone and mudstone with minor limestone and dolerite dykes.
Epp Poverty Point beds – dolo-arenite, chert, argillaceous siltstone/sandstone, shale
PRECAMBRIAN Po Oonah Formation – interbedded shale, siltstone, sandstone and minor dolomite
- thickly bedded sandstone
- Queen Hill beds (dolomite, ex-evaporite, chert, shale, siltstone)
- Montana Volcanics (basaltic vesicular lava, agglomerate and related tuff)
COMPILED, RE-INTERPRETED AND MODIFIED FROM THE FOLLOWING SOURCES.
GEOLOGY
Blissett and Guillina (1962)
Aberfoyle Resources Ltd – unpublished plans by:- D.C. Simpson (1973)
J.R. Taylor (1980)
S.M. Richardson (1982)
This study – remapping and surface projection of drill core contacts within the central area (360,000E to 361,400E, 5,361,000N to 5,363,300N)
LODE LOCATIONS AND MINERALOGIES
Waller (1903)
Twelvetrees and Ward (1910)
Both and Williams (1968 a,b)
This study – dump examination and projection of drill intersections within the central area.
NOTE: Total outcrop is less than 5%.
Most lodes are now obscured at the surface.
OONAH HILL
OONAH FAULT
PHOTO-INTERPRETED F.A.
LIMIT OF ANOMALOUS "STREAM SEDIMENT" Sn (interpreted from company data)
"BARNETTS"
Mesocratic adamellite porphyry (as at location 1·75km to south). Overprinted by Gn-Sp lode mineralization.
Weathered qz feldspar porphyry dyke – 1cm rounded feldspar and 0·5-2cm cumulophyric qz phenocrysts, layering parallel to dyke margins.
"SYLVESTER" (St) basalt reported
"NORTH COMSTOCK"
button-grass marsh (no information)
"COMSTOCK" R.L. approx. 1270
OPENCUT dolomite reported.
"BOSS"
"SUSSANITE"
"BRITANNIA"
BALSTRUP FAULT
ABANDONED TRAMWAY
Porphyry rubble – medium grained rounded qz in weathered green/brown mottled clay groundmass
aplite dyke reported with gabbro
Mesocratic adamellite porphyry rubble. Subhedral albite argillized K-spar and quartz phenocrysts; albite/K-spar (70%/3) phenocrysts; leucoxene (5%) groundmass. Texture and possible amygdules suggest high level of emplacement (uncatalogued TS 264135)
"SILVER QUEEN EXTENDED"
QUEEN HILL
Approx. R.L. 1305
Approx. R.L. 1360
Manganiferous siliceous zone
"NIKE" (St)
"ARGENT No.2" (St)
"ARGENT No.3"
"ARGENT No.4"
"ARGENT No.5" (St)
"ARGENT No.6"
"ARGENT No.1" (St)
MANGANESE HILL
Approx. R.L. 1330
"BALSTRUPS"
"SPRAY"
Gn-sd dominant down to R.L. 1150. Bl Bn Te most abundant between R.L. 1150'-1110 dominant Py and some St below R.L. 1110, ore shoot plunges 40° SE. Montana Volcanics reported
"QUEEN No.2"
"QUEEN No.3" (St)
(ZEEHAN QUEEN")
"QUEEN No.4" (St)
Py becomes dominant gangue beneath R.L. 1120; Sp below 1120
QUEEN HILL BODY (cs)
Positions on bench (approx. R.L. 1220 non obscured) & R.L. 1100
CLARKES & TAYLORS – stannite-bearing below R.L. 1200; Py dominant below R.L. 1080
BARREN OUTCROP POSITION
GOLF COURSE OPENCUT (cs)
SEVERN BODY (cs)
Reported as pyrite, observed in mine dump and shallow drill samples are siderite-dominant.
X 112 Fluid inclusion & C-O isotope sample
"FLORENCE"
Weathered in-situ porphyry dyke (1-2m wide) scattered quartz and argillized feldspar phenocrysts in totally argillized groundmass (uncatalogued sample 264132)
Pedder Street
"ZEEHAN WESTERN" (St)
Best Gn'bra' down to R.L. 1190, weak Gn-St development of Cp Te (St?) mineralization below R.L. 1190. dolomite reported.
"JUNCTION" more pyritic to SW.
5cm cs Py vein reported in vicinity
Stannite Lode
Gn decreases, St increases beneath R.L. 1160, ore shoot plunges 40° SE.
"OONAH" dolomite reported in workings.
"QUEEN No.5"
S & C-O isotope sample
"MONTANA No.1" (St)
Gn peters out below R.L. 1100, dolomite reported
"MONTANA No.2"
Gn decreases, Py increases below R.L. 1090.
MONTANA HILL
Approx. R.L. 1245
MONTANA BODY (cs)
Gossanous outcrop in poverty point opencut (approx. R.L. 1190) & outline at R.L. 1000
POVERTY POINT OPEN CUT (Py-cs)
(NORTH QUEEN HILL LODE (cs) 108, 246 (Sisotope Sample)
STORMSDOWN OPENCUT (cs)
PAYNES OPENCUT (Sn)
"TASMANIAN CROWN"
"NEW GREAT EASTERN"
"DESPATCH"
"NEW MT ZEEHAN" (St?)
"SILVER KING EXTENDED"
Mining Museum
puggy gossanous limestone adjacent to sharp fault
ZEEHAN TOWNSHIP
KING HILL
DESPATCH FAULT
WALLER FAULT
LIMIT OF ANOMALOUS "STREAM SEDIMENT" Sn
Approx. R.L. 1260
Approx. R.L. 1220
AMG N
TN
MN
1°25'
12°46'
0 100 200 300 400 500 metres
358000E
359000E
360000E
361000E
362000E
5363000N
5362000N
5361000N
5360000N
ZEEHAN TIN DEPOSITS, W TASMANIA
J.A. ANDERSON Ph.D THESIS
Base: Waller (1903), Aberfoyle Plan QH181, and 1977 contracted air photos.
INTERPRETIVE GEOLOGICAL PLAN
including silver-lead bearing pyrite-siderite lodes and sulphide-cassiterite bodies
Drawn: J.A. Anderson
Traced: T. Neim
Date: Nov. 1987
Scale: 1:5000
Enclosure 1