

Tasmanian Mineral Exploration Company Report

Title: Photogeology study of Zeehan, Rosebery, Heemskirk and Grubb
Mine plan
Company: PlacerDome

Plans from archive store in Zeehan

Compiled by David Green 4 June 2003.

03_4921

Photogeology study of Zeehan, Rosebery, Heemskirk
and Grubb Mine Plan
Placer Dome Asia Pacific*
Green, D.

I. J1680

MAP SHEET: ZEEHAN

A	B
C	D

ENLARGE TO 732"

ENLARGE TO 732"



1-1003

03_4921

Photogeology study of Zeehan, Rosebery, Heamskirk
and Grubb Mine Plan
Placer Dome Asia Pacific
Green, D.

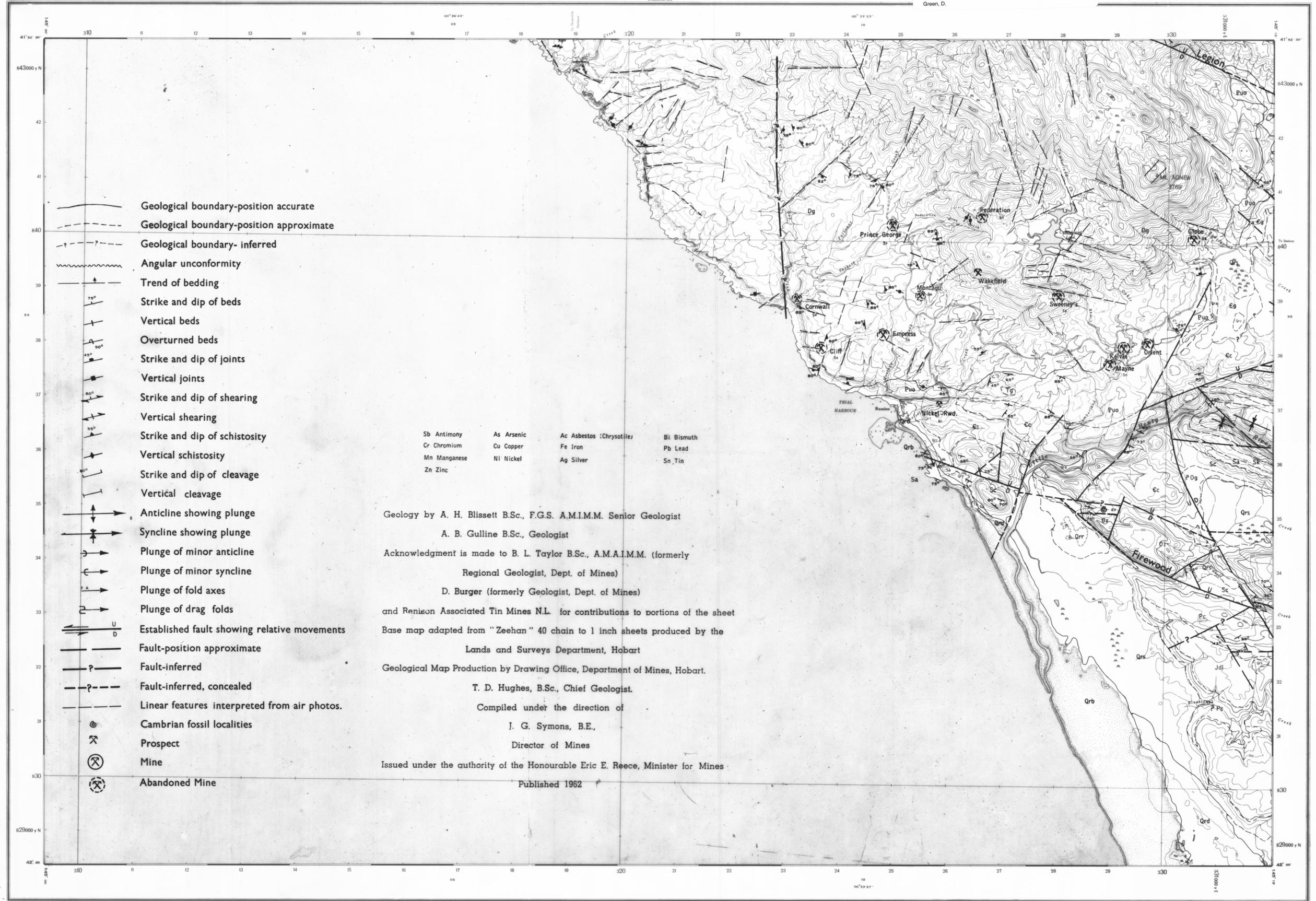


ZEEHAN
STATE AERIAL SURVEY
TASMANIA

Photogeology study of Zeehan, Rosebery, Heemskirk
and Grubb Mine Plan
Placer Dome Asia Pacific
Green, D.

Zone 7 Sheet No. 50 C

AUSTRALIA 1:31,680



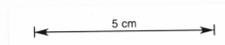
- Geological boundary-position accurate
- Geological boundary-position approximate
- Geological boundary- inferred
- Angular unconformity
- Trend of bedding
- Strike and dip of beds
- Vertical beds
- Overturned beds
- Strike and dip of joints
- Vertical joints
- Strike and dip of shearing
- Vertical shearing
- Strike and dip of schistosity
- Vertical schistosity
- Strike and dip of cleavage
- Vertical cleavage
- Anticline showing plunge
- Syncline showing plunge
- Plunge of minor anticline
- Plunge of minor syncline
- Plunge of fold axes
- Plunge of drag folds
- Established fault showing relative movements
- Fault-position approximate
- Fault-inferred
- Fault-inferred, concealed
- Linear features interpreted from air photos.
- Cambrian fossil localities
- Prospect
- Mine
- Abandoned Mine

Sb Antimony	As Arsenic	Ac Asbestos (Chrysotile)	Bi Bismuth
Cr Chromium	Cu Copper	Fe Iron	Pb Lead
Mn Manganese	Ni Nickel	Ag Silver	Sn, Tin
Zn Zinc			

Geology by A. H. Blissett B.Sc., F.G.S. A.M.I.M.M. Senior Geologist
 A. B. Gulline B.Sc., Geologist
 Acknowledgment is made to B. L. Taylor B.Sc., A.M.A.I.M.M. (formerly
 Regional Geologist, Dept. of Mines)
 D. Burger (formerly Geologist, Dept. of Mines)
 and Renison Associated Tin Mines N.L. for contributions to portions of the sheet
 Base map adapted from "Zeehan" 40 chain to 1 inch sheets produced by the
 Lands and Surveys Department, Hobart
 Geological Map Production by Drawing Office, Department of Mines, Hobart.
 T. D. Hughes, B.Sc., Chief Geologist.
 Compiled under the direction of
 J. G. Symons, B.E.,
 Director of Mines
 Issued under the authority of the Honourable Eric E. Reece, Minister for Mines
 Published 1962



SCALE 40 CHAINS TO 1 INCH
 CONTOUR INTERVAL 50 FEET
 Crown Copyright
 Reserved



copy
H.
Bowie Dept

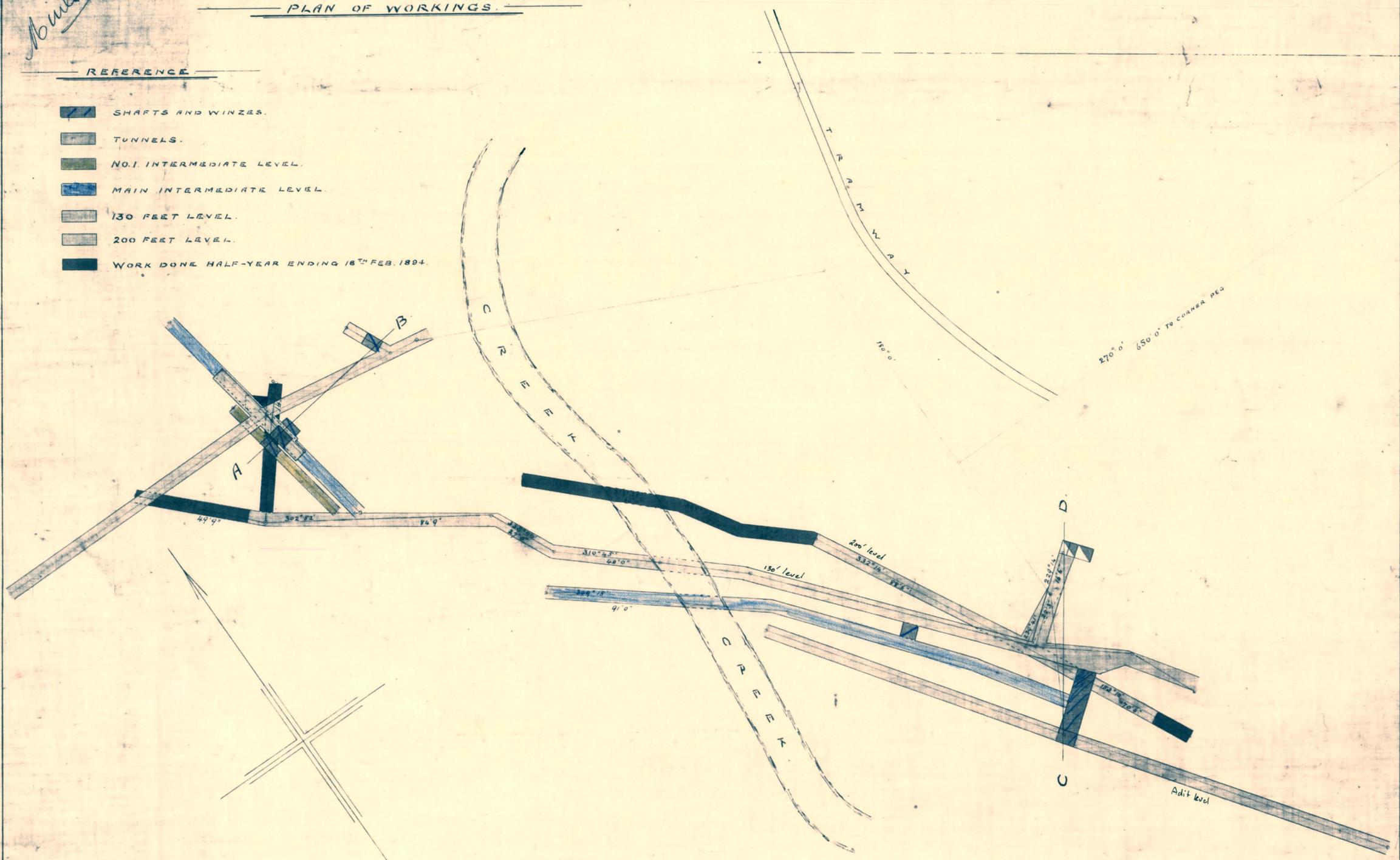
GRUBB'S SILVER MINING CO, ZEEHAN.

March 14th
1894.

PLAN OF WORKINGS.

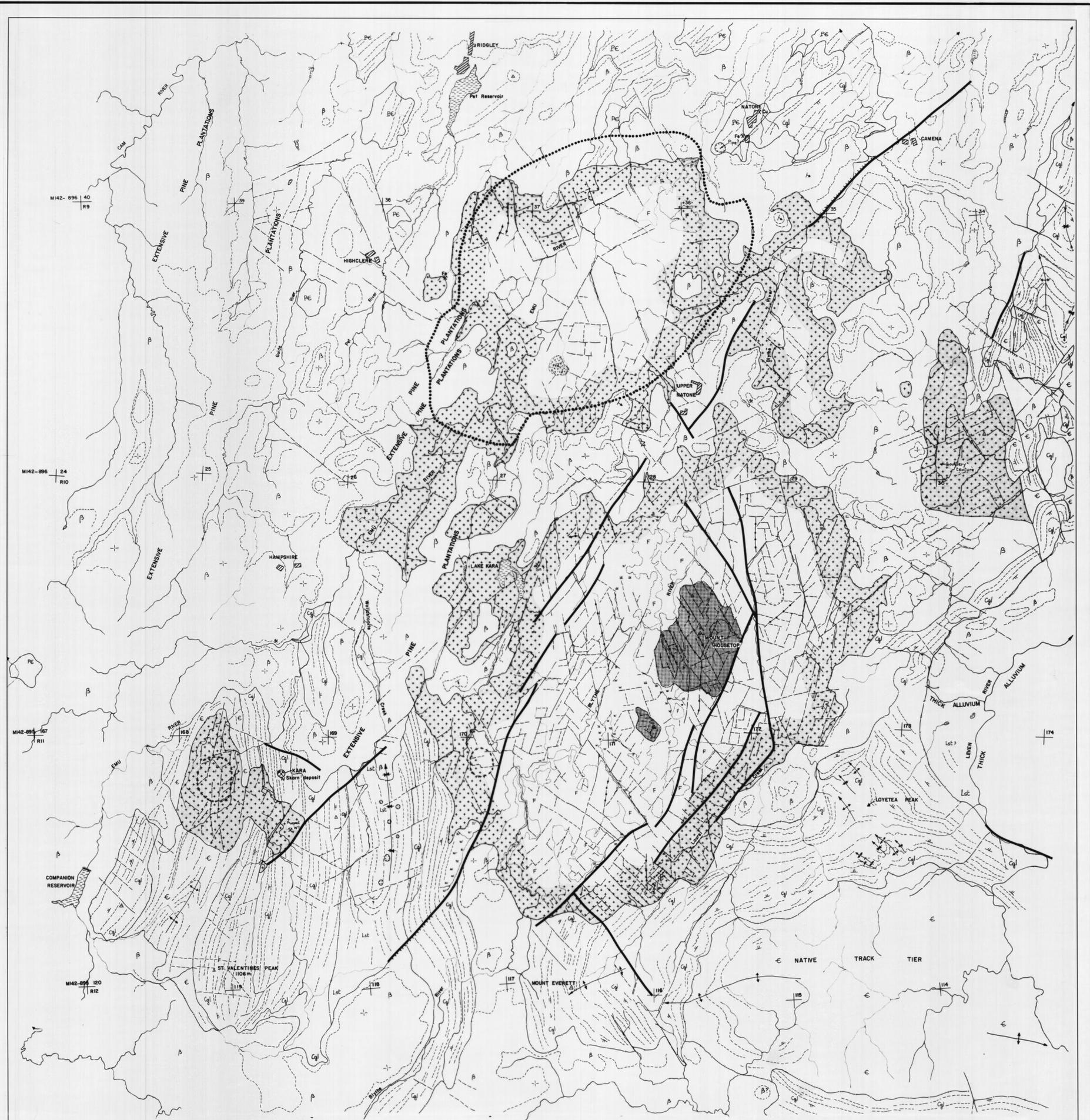
REFERENCE

-  SHAFTS AND WINZES.
-  TUNNELS.
-  NO. 1 INTERMEDIATE LEVEL.
-  MAIN INTERMEDIATE LEVEL.
-  130 FEET LEVEL.
-  200 FEET LEVEL.
-  WORK DONE HALF-YEAR ENDING 16TH FEB. 1894.



John Wadsworth M.A. M.C.E.
Mining Manager
1894

HEEMSKIRK GRANITE AREA
General
Zeehan Field
Grubb's Mine
Plan (1894)
Scale 1:300



**PHOTOGEOLOGICAL STUDY
HOUSE TOP GRANITE, WESTERN TASMANIA**

SCALE 1 : 42,000 approx.



REFERENCE

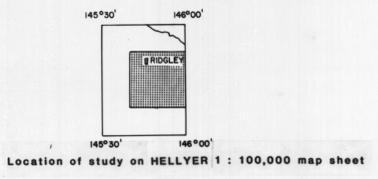
- | | | | | |
|---|--|--|--|---------------------|
| River, creek, waterfall | Strike and dip of bedding | Horizontal | Strike and dip of bedding estimated from aerial photographs | Major mine (named) |
| Lake, reservoir | Geological boundary, position approximate | Less than 10° | 10-30° | Alluvial workings |
| Swampy area | Geological boundary, position inferred | Hinge line with plunge of major fold: anticline, syncline | Inferred outline of separate intrusion (magnetically quiet) interpreted from magnetic contour map (total intensity) compiled from an airborne survey in the Hampshire-Blythe River District (BMR, 1956 and 1956) | Quarry (road metal) |
| Prominent hill | Circular feature (depression) possibly representing a pipe | Major fault | Abandoned mine (position uncertain) | Sn Tin |
| Built-up area | Circular feature associated with an intrusive stock | Jointing | W Tungsten | Fe Magnetite |
| Aerial photograph centre point, showing film negative number, print and run numbers | Forestry, logging area | Fault with relative movement (tick on the downthrown side) | Cu Copper minerals | |
| | Vegetation "anomaly" | Dyke | | |
| | Sinkhole | | | |

- | | |
|---|--|
| TERTIARY | Basalt and related igneous rock types |
| LOWER CARBONIFEROUS - UPPER DEVONIAN | Fine to medium grained biotite-muscovite granite intrusive phase into: Coarse-grained porphyritic biotite adamellite |
| ORDOVICIAN | Limestone sequence |
| CAMBRIAN | Conglomerate, sandstone, quartzwacke, siltstone |
| PRECAMBRIAN | Unfossiliferous graywacke turbidite sequence with minor acid-intermediate volcanic and associated rocks |
| | Quartzwacke turbidite succession, conglomerate |

Note the frequently reversed drainage pattern at several localities (structurally controlled, e.g. Run 9-38, Run 10-29 and Run 11-170)

Controlled drainage obtained from 1 : 100,000 topographic sheet HELLYER 8015 (Edition 2 1977)

No field checking carried out



Hunting

Hunting Geology and Geophysics (Australia) Pty Limited
P.O. Box 385 Fishwick, A.C.T. 2609 Telephone (062) 90 4277



03_4921

Photogeology study of Zeehan, Rosebery, Heemskirk and Grubb Mine Plan
"Placer Dome Asia Pacific"
Green, D.

1:42,000

PHOTOGEOLOGICAL STUDY

HOUSE TOP GRANITE

JULY 83

General Section Field
Grubbs Mine
Plan (1898)
Scale 1:300

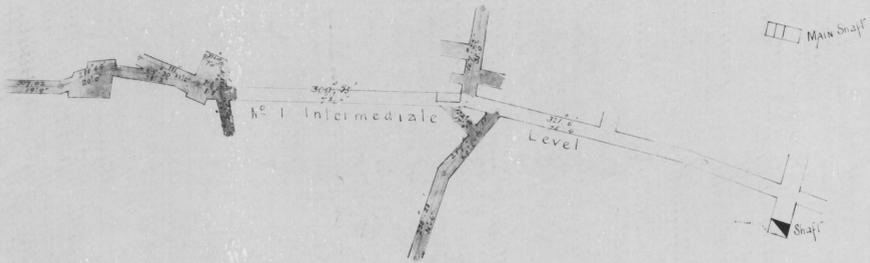
GRUBBS S.M.C.

Scale 25 ft to an Inch

03_4921

Photogeology study of Zeehan, Rosebery, Haemskirk
and Grubbs Mine Plan
Placer Dome Asia Pacific
Green, D.

5 cm



Reference:

- Sinking, Raising, Driving done From Feb. 29 to July 7 '98
- Stopping

1:30,000
(Approx)

ROSEBERY -
QUEENSTOWN

GEOLOGY
INTERPRETATION

LEGEND

03_4921

5 cm

Photography by G. Zohar, Rosebery, Hemlock, and Glazebrook Mine Plant, Rosebery, Tasmania, Australia.

QUATERNARY

Undifferentiated mainly glacial and fluvioglacial deposits

PERMIAN - JURASSIC

Permo-Triassic sediments and Jurassic Dolerite

ORDOVICIAN - DEVONIAN

Ordovician limestone and Siluro-Devonian rocks

Owen Conglomerate and correlates

CAMBRIAN

Tyndall Group - Newton Creek Sandstone, Comstock Tuffs

Jukes Conglomerate - lateral equivalent of Tyndall Group?

Andesitic porphyry bodies (mainly intrusive)

Acid porphyry bodies (mainly intrusive)

Pyroclastic rocks with minor sediments and lavas - mainly Queenstown Pyroclastics

READ MOUNT VOLCANICS

Rhyolites and rhyolitic porphyries with minor pyroclastics

Massive pink Darwin-type rhyolite ("Darwin Keratophyre")

Granitic rocks

Sedimentary sequences with minor pyroclastics

Basic and ultrabasic intrusives, basic volcanics

UPPER PROTEROZOIC - ? LOWER CAMBRIAN

Unmetamorphosed sediments

PRECAMBRIAN

Metamorphosed schists and quartzites

Ore body

Prospect

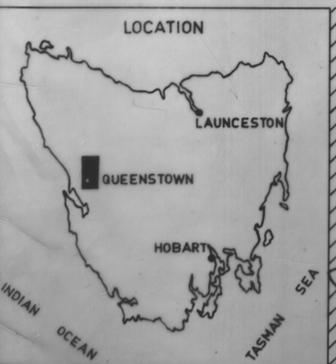
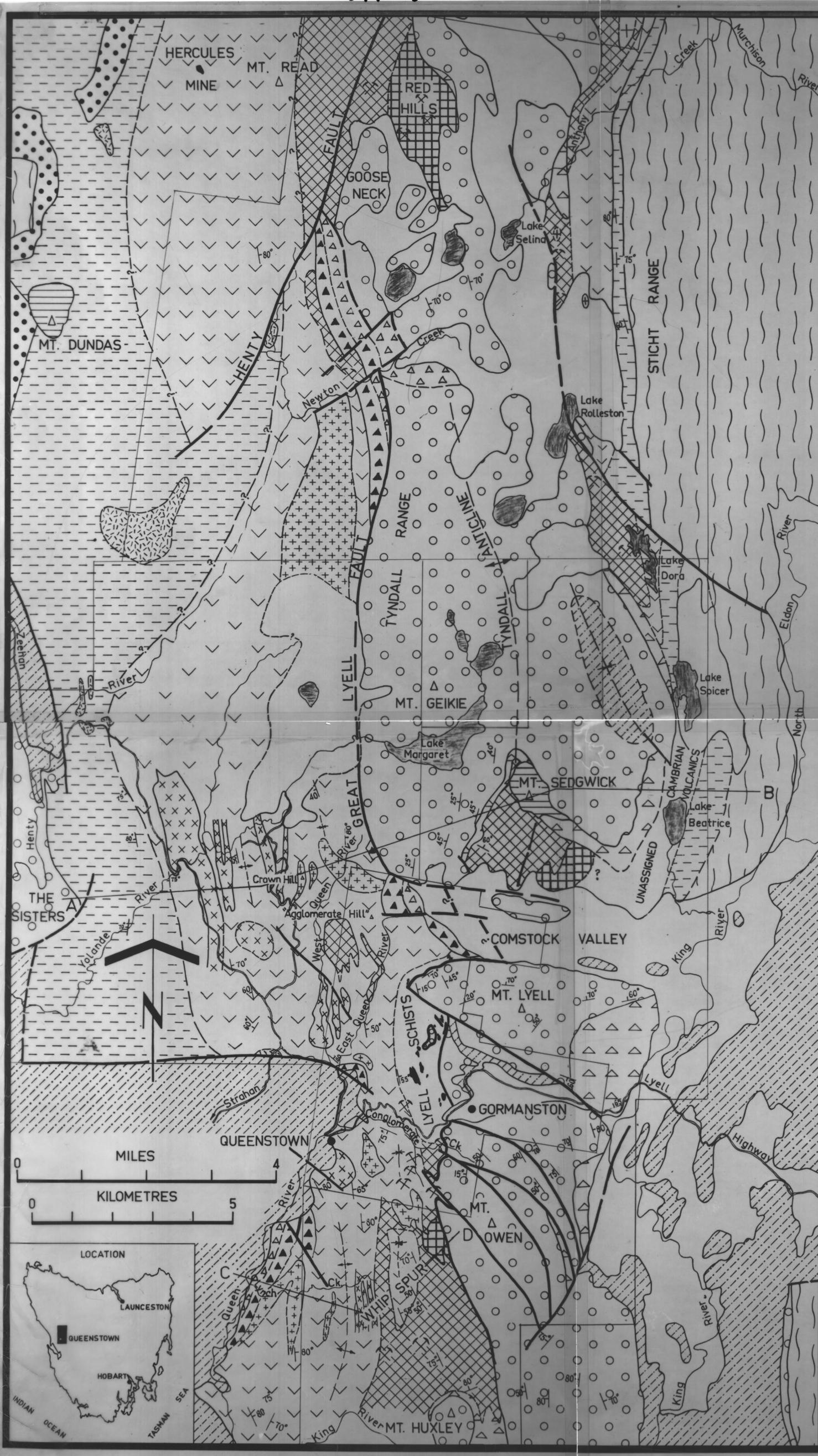
Fold axis

Major faults

Geological boundary

Approximate geological boundary

Strike and dip of bedding





PHOTOGEOLOGICAL STUDY
GRANITE TOR
WESTERN TASMANIA

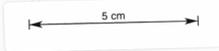
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Photogeology study of Zeehan, Rosebery, Heemskirk
and Grubb Mine Plan
Placer Dome Asia Pacific
Green, D.

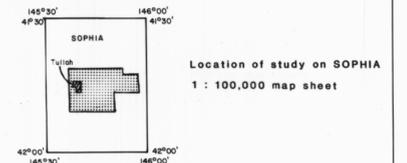
SCALE 1 : 42,000 approx



REFERENCE



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|---|--|--|
| River, creek, waterfalls | Bedding trend | Geological boundary, position approximate |
| Dam, lake | Igneous foliation trend | Geological boundary, position inferred |
| Built-up area | Antiform, Synform | Unconformity |
| Trigonometric station or prominent hilltop | Circular feature (depression) possibly representing intrusive pipe | Outline of area of "anomalous" (more intense) fracturing |
| Aerial photo centre point, showing run, print and film negative numbers | Dyke (acid vein) | Major fault |
| | Mine working reported in the literature (Sn - tin) | Fault with relative movement (tick on the downthrown side) |
| | | Jointing, minor fault |
| | | Strike and dip estimated from the air photograph |
| | | horizontal |
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- | | |
|---------------------------------------|---|
| JURASSIC | Dolerite |
| PERMO - CARBONIFEROUS | Permian Super - Group : fluviolacustrine and glaciomarine sedimentary sequences of sandstone, shale, coal measures and mudstone |
| LOWER CARBONIFEROUS TO UPPER DEVONIAN | Granite Tor : Grey coarse-grained muscovite - biotite granite / adamellite, fine-grained variety (hatched), and related aplite dykes, greisen and quartz tourmaline veins |
| PRECAMBRIAN | Well bedded platy micaceous quartzite with subordinate pelitic layers, siltstone, phyllite, schist alternating with schistose quartzite |



Controlled drainage base obtained from 1 : 100,000
SOPHIA 8014 topographic map (edition 1977)

No field checking carried out

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1:42,000

PHOTOGEOLOGICAL
STUDY

GRANITE
TOR

JULY 83



**PHOTOGEOLOGICAL STUDY
MEREDITH GRANITE, WESTERN TASMANIA**

03_4921

SCALE 1 : 42,000 approx.



REFERENCE

- Bedding / metamorphic foliation trend
- Hinge line with plunge of major fold : anticline, syncline
- Geological boundary, position approximate
- Geological boundary, position inferred
- Geological boundary, position concealed
- Strike and dip of bedding or igneous banding
- Major fault
- Fault with relative movement (tick on downthrown side)
- Jointing, fracturing
- Dyke

- Circular feature (mostly depression) possibly representing pipe
- Vegetation anomaly (commonly associated with Cambrian ultrabasic rocks)
- Outline of area of 'anomalous' (more intense) fracturing and lesser vegetation
- Area of very intense fracturing
- River, creek, waterfall
- Lake, tailing pond
- Prominent hill or trigonometric station
- Open pit
- Dam
- Tailings

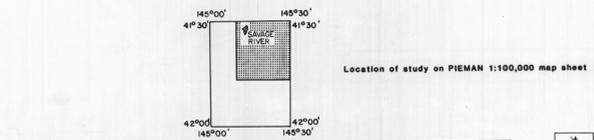
- Major mine (named)
- Alluvial workings
- Built-up area
- Sn Tin
- Os Osmiridium
- Fe Magnetite
- Q Quarry (road metal)

- TERTIARY** Basalt and related igneous rock types
- LOWER CARBONIFEROUS** Fine to medium grained partially porphyritic biotite - muscovite granite, microgranite, apfite, quartz porphyry intrusive into coarse to very coarse grained porphyritic pinkish biotite adamellite
- UPPER DEVONIAN**
- CAMBRIAN** Greywacke turbidite sequence

M142-897 20 R18 Aerial photograph centre point showing film negative number, run and print numbers

Controlled drainage obtained from the 1 : 100,000 topographic sheet PIEMAN 7914 (Edition 3 1977) and ARTHUR RIVER 7915 (Edition 1 1977)

No field checking carried out



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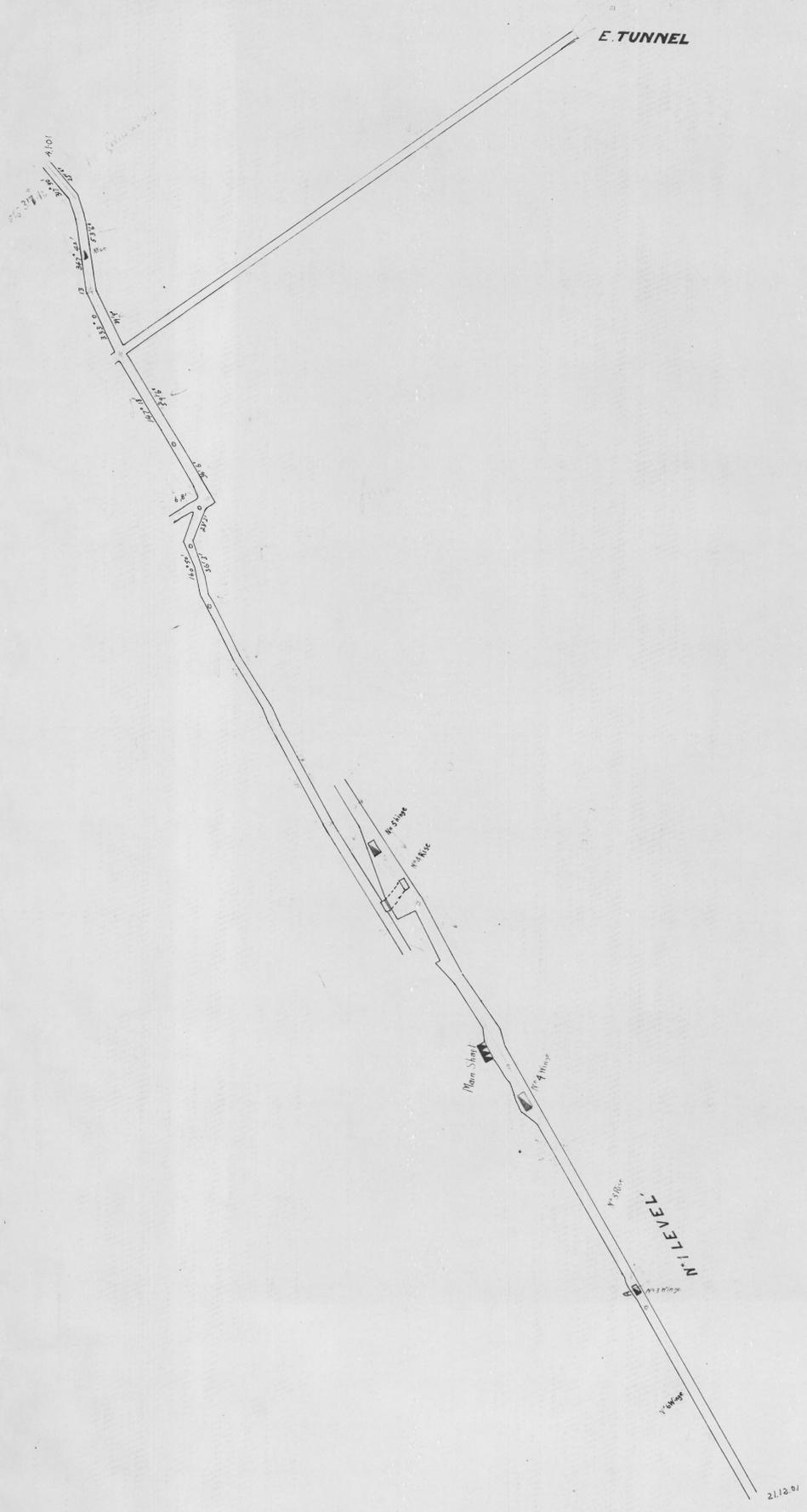
1:42,000

PHOTOGEOLOGICAL STUDY

MEREDITH GRANITE

JULY 1983

HEEMSKIRK GRANITE AREA
General Zeehan Field
Spray Mine (902)
Scale 1:360 No. 1 Level



03_4921

Photogeology study of Zeehan, Rossbery, Heemskirk and Gardo Mine Plan
Placer Dome Asia Pacific
Green, D.

MOUNT ZEEHAN (TAS) S. L. MINES LTD.

SILVER SPRAY

SCALE 30 FEET TO 1 INCH

PLAN

Showing Details of

N° 1 LEVEL

E. TUNNEL



MANAGER

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