Examination of Findons Area 3107/M. (2 COPIES)

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REPORT ON EXAMINATION OF
FINDONS AREA – SECTION 3107M
LYELL-EZ EXPLORATIONS

REPORT ON EXAMINATION OF FINDONS AREA - SECTION 3107M

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15th January, 1957

Report on Examination of Findons Area - Section 3107-M

Dates of Examination:	18th December, 1956 to 9th January, 1957.
Party Leader:	M. L. Wade
Personnel Employed:	K. Beck, C. Brooks (Students), R. Martin (bushman) and D. Sawoff (Surveyor).
Man days in the field:	41
Location of Base Camp:	Headwaters of Allan Creek, Mt. Darwin.
Means of Transport and Supply:	Helicopter
General Topography:	Elevated, rough and scrubby.

Geological Investigation and Findings:

A detailed contoured geological map on a scale of 1" = 40' was prepared at the Findons workings. Work was severely hampered by gale force winds, low cloud, rain, hail and snow.

The copper occurs in a ferruginous and chloritic hard dense gangue carrying pyrite and chalcopyrite. The country rock is a featureless, fine-grained, pink felspathised sediment. The workings were sampled and tested for radio-active content. Considerable difficulty has been experienced in obtaining fully charged batteries for the scintillometers and geiger and it was felt that the party could not wait indefinitely for an instrument in good working order. It would be more satisfactory if the Bureau could run a radiometric survey over the area.

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The copper mineralisation was found to extend over a total length of some 440 feet of tested outcrop and over a width of up to 12 feet. A detailed description of the workings follows:-

Workings comprise four trenches and one adit, c.f. surveyor's contoured plan, in two groups.

Group 1: The adit and the trench above it.

The adit comprised 126 ft. of tunnel driven at 228° into the hill, with a 12 ft. drive to the south east. Little copper mineralisation in the drive, which followed a faint, steeply dipping lode shear, about 1 ft wide.

At the 113 ft. mark in the adit the west wall showed 6-7 ft. of malachite staining on seepage. There was no mineralisation at the face of the adit.

Samples were taken in the drive and on the east and west walls of the adit.

Mineralisation: Little pyrite and less chalcopyrite in the drive face and at 113 ft. on the east wall of the adit.
Malachite staining on barren (?) rock on west wall of adit.

The trench was 19 ft. long, parallel to the adit, across the general mineralisation trend.

Mineralisation: Except in the face, little pyrites and chalcopyrite.
In face, vein of chalcopyrite, covellite and pyrite dipping south east at about 45°.

The trench could not be sampled as the vein in the face was not fully exposed.

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Sample Details

1. Rough sample, no sign of sulphide minerals in hand specimen.
Hope to have excluded all secondary staining (malachite) from sample.
7 ft.

2. Walls covered with limonite. Water seepage prevented cleaning.
3 ft.

3. Vein of pyrite, chalcopyrite 1 ft. wide on south east wall.
Difficulty experienced in getting equal portions hard and soft rock.
17 inches.

4. Remainder of drive face appears barren - little disseminated pyrite.
20 inches.

Group 2: Three parallel trenches, a few hundred feet from the adit. See plan.

The largest central trench: This has a shaft 20 feet deep at its mouth. The trench is 43 feet long, with copper mineralisation evident over the first 40 feet. This was sampled.

Mineralisation: Disseminated chalcopyrite and covellite, with some pyrite.
Native copper reported but not confirmed.

Upper trench: Approximately 9 feet long, 2-3 feet deep, not sampled.

Mineralisation: Covellite, chalcopyrite, pyrite, improving from disseminated copper at the mouth to smear occurrences of apparently higher copper content toward the face.
Face still in lode.

Lower trench: Approximately 12 feet long, 3-4 feet deep. No lode in face. Only sign of mineralisation was a trace of disseminated pyrite on east wall at 6 feet from mouth. Unsampled.

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N.B. Accurate measurement indicates that the adit has not yet reached the vein showing in the face of the trench in Group 1.

Low grade mineralisation of varying widths, up to 12 feet, over a length of 420 feet has been exposed at Findons Workings. Mineralisation appears to trend on a bearing of ~~240°~~ 330° and to dip at approximately 45° S.E. ?S.W. North-easterly extent not defined.

In Geological Survey Bulletin No. 16, Dr. Loftus Hills quotes a report by Mr. Waller in which a formation width of from 20 to 60 feet is given. This is by no means all mineralised, but represents a rather vague zone of chlorite and iron stained, hard, fine-grained material. His assay values of 3.0% and 5.0% Cu. appear to have been of picked ore.

Assays:

Adit	No. 1	0.07% Cu.
	No. 2	0.12
	No. 3 & 4	0.03
Main Trench	No. 1	0.07
	No. 2	0.54
	No. 3	0.05

General Conclusion:

It is difficult to recommend any drilling on a formation 440 feet in length and up to 60 feet in width and with such low assay values in the main workings; however, it may be worth one shallow drill hole below the shaft whilst the diamond drill is in the area. The drill is at present only 3 miles north of Findons workings.

A short radiometric survey of the area is recommended because readings of three times background were obtained at a height of 200 feet above the workings.

M. L. Wade

M. L. Wade

004 Appendix to Report on Findons Area - Section 3107-M, dated 15th January, 1957.

An old file has been found in which some additional information has come to hand. In 1903, W. H. Cundy, a reliable sampler, examined ~~the Prince Darwin~~ Findons ? workings. He reported the lode formation as being from 50 to 60 feet in width. He quoted from a report by Mr. Waller, Assistant Government Geologist, in which the whole of his samples averaged 2.6% Cu. Cundy took samples along the lode and across it where possible and he reported the following:

General Sample all along lode near surface and in trenches.

Copper	Silver	Gold
2.05%	0.10	trace

Knowing how Douglas' careful sampling confirmed that done by Cundy, it is difficult to reconcile Cundy's average of 2.05% with my 0.14%. I can only suggest surface leaching in the 54 years that have elapsed since Cundy took his samples. I, therefore, suggest further less superficial sampling at Findons.

M. L. Wade

14th February, 1957. M. L. Wade

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Findons Area

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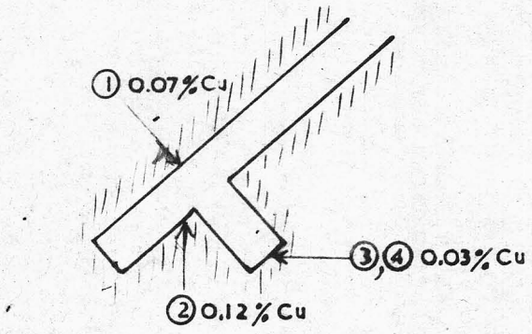
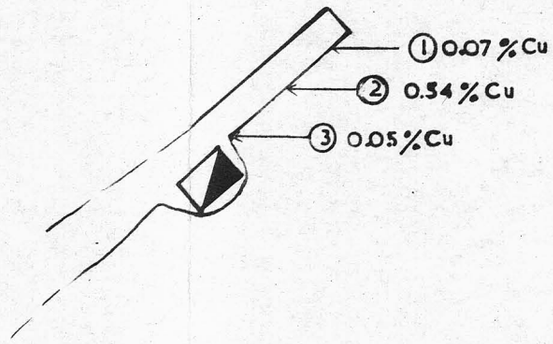
Surface Workings
- Group 2 -

Main Trench

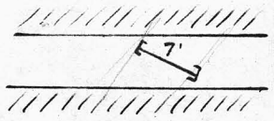


ADIT - PLAN



MAIN TRENCH - PLAN

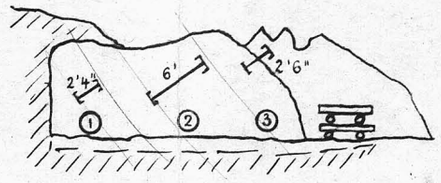
SAMPLE ①



SAMPLE ②

SAMPLE ③ ④

ADIT - SECTIONS



TRENCH - LONG. SECTION

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5 cm

FINDONS WORKINGS (Mt. Darwin)

Plans and Sections, Scale 1" = 20'

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January 1957

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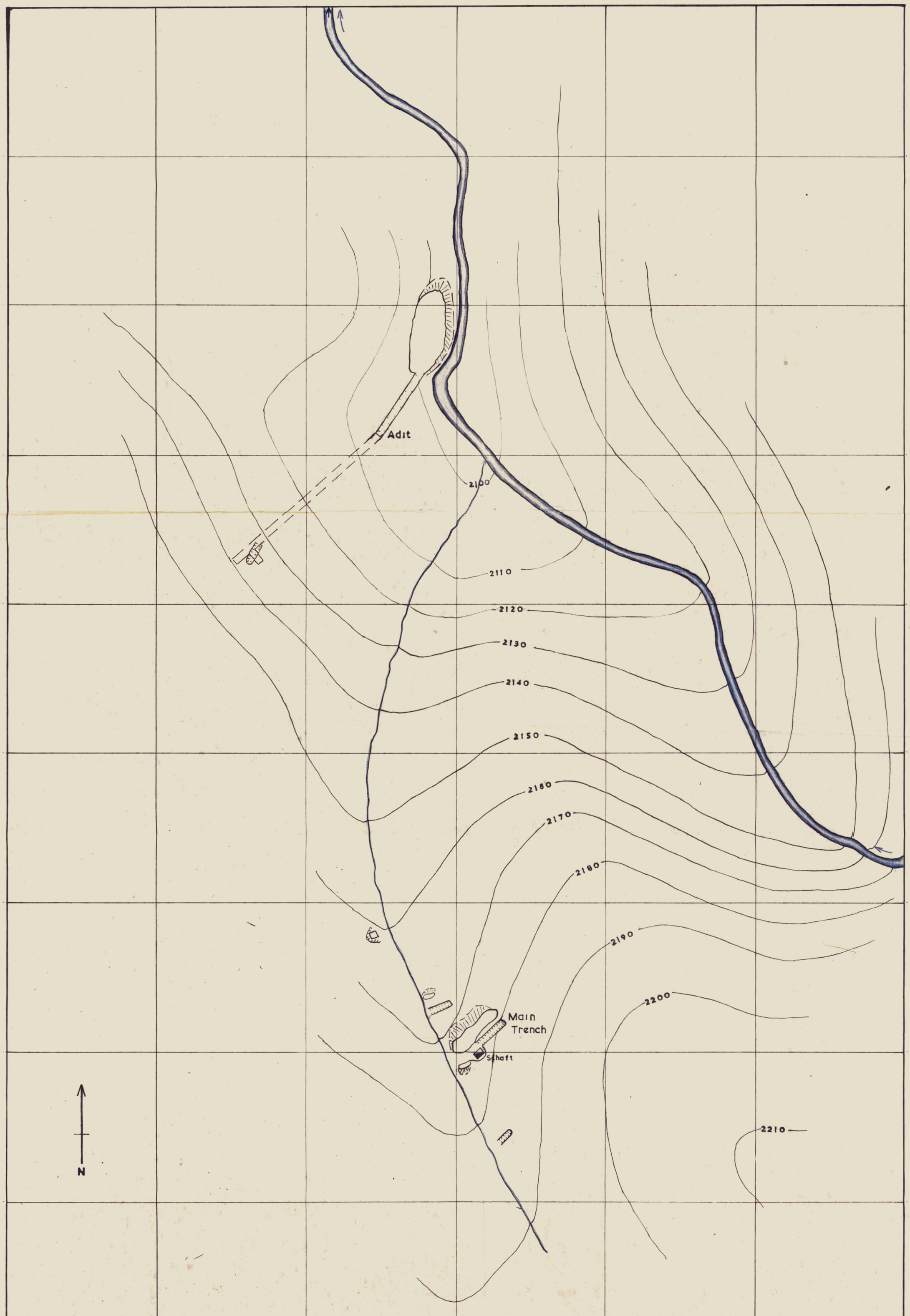

FINDONS WORKINGS (Mt. Darwin)

SURFACE PLAN

Scale 1" = 40'

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