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PRELIMINARY REPORT

MAGNET MINE

WARATAH DISTRICT

TASMANIA

by

K.R. GLASSON & R. COX

February, 1968.

AMG REFERENCE POINTS ADDED

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1. INTRODUCTION

The Magnet Mine is located 4 miles west of Waratah and approximately 4 miles N.E. of Cleveland Mine on the east flank of the Magnet Range. The original access to the mine was a tram track cut along the ridge for approximately 3 miles from the 8 mile peg on the Waratah-Corinna Road. It is recommended that this track be cleared to provide access for drilling. In 1902 a tram track linking Guilford Junction and Magnet was opened. This track, which leaves the Waratah-Corinna Road approximately 2 miles from Waratah, provides landrover access to the Magnet workings along 8 miles of well graded track. However it would require money being spent on culverts etc. if it were used as access for drilling. The disadvantage with this track lies in the fact it would have to be relocated near Magnet workings if drills were to be sited to the west along the Magnet Range. Even though the time involved to reach the drill site from Waratah might be slightly less along this latter tram track, it would take considerably longer to reach the workings coming from Cleveland Mine.

The availability of water for drilling is assured using the supply in the Magnet Creek approximately 1400 feet from the drill sites. However it is possible that use could be made of the No. 4 level adit portal which is virtually blocked off. However, provided the acidity of this water was not too high (and it is not likely to be because of lack of pyrite in the ore and abundance of carbonate) it would be much closer to the drill sites as a water source.

During the past two years lines have been cut across the strike of the country from Cleveland Mine to Magnet at 500 feet intervals. This is shown on attached plan C-176G. On these lines the geology and geophysical results have been plotted and referred to in an earlier report on the regional investigation (Cox, 1967).

Over a strike length of approximately 2000 feet (in the vicinity of the old Magnet workings) lines have been cut at 100 feet intervals and the geology has been mapped in detail and geochemical (soil) samples taken and assayed.

Examination of all previous literature on the mine and the results obtained in the exploration programme undertaken by Cleveland Tin N.L. indicates that further exploration by way of drilling is warranted.

2. HISTORICAL REVIEW

Gossans were noted by W.R. Bell in 1877 and the main gossan overlying the lode at Magnet were either discovered or rediscovered by Bell in 1890 (Nye, 1923). The first lease taken out was in 1891 as a Reward Claim. The Magnet Silver Mining Co. N.L. was found in 1895 and high grade silver and lead ore was taken out until 1900. After that date the tram line to Guilford was completed and ore of a lower grade was also sold. The Mine continued to operate with varied success until 1933 when the property was let on tribute (Cottle, 1953).

Total production has been estimated by Cottle (1953) as being 620,000 tons which yielded 37,395 tons of lead and 7,979,616 oz. of silver. No records are available of the zinc produced.

The best available indication of the grade of the orebody comes from the production records of 15 years (not consecutive) between 1916 and 1933. In these records 251,331 tons of ore was mined for a recovery of 14,229 tons of lead and 2,826,192 oz. of silver showing a recovery grade of 5.7 percent lead and 11.25 oz. of silver per ton. Tailing losses are not known but Cottle estimated the dump material to contain 1.3 percent lead, 7.3 percent zinc and 5.3 oz. Ag per ton.

Cottle again indicated that stoping was conducted to a depth of 1,200 feet below the outcrop and the tons yielded per vertical foot of development was in the order of 520.

The deposit was worked by open cut and adit levels down to the No. 4 level, below which an incline shaft was sunk on the footwall side of the lode to a total depth of 950 feet. This underlay shaft was designed at an angle of 73 degrees, corresponding with the dip of the lode above the No. 4 adit level. However the lode flattened to an average dip of 55 degrees below the No. 4 level with the result that cross cutting at the No. 16 level amounted to 523 feet, or more than the strike length of the orebody (vide Cross Section M002G).

There have been a number of reports on the geology of the ore deposit but the most significant was that of Nye (1923). He considered the Magnet lode occurred within the Magnet dyke or dykes, which are intrusive into slates, cherts and breccias of the Dundas Series. Included within the dykes were two bodies of slates and sandstones of the Bischoff Series. He believed the dyke intrusion was controlled by major faults and the mineralisation was also controlled by this fault pattern.

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The orebody was confined between the footwall vein (shear) striking N-S and dipping 55° W and a hanging wall vein striking 33° and dipping 55° NW. The best ore was located near the junction of these two vein systems.

Cottle (1953) drew largely from Nye's work and reviewed the intersection of the two shear zones as the controlling feature of the orebody. He also adopted the faulting to be pre-dyke intrusion and assumed the subdivision within the igneous rocks (dyke) proposed by Nye to be important. Both these workers recognised extensive wall-rock alteration. Cottle reported:

"In all the rock types the primary minerals are more or less completely converted to serpentines and chloritic minerals. The alteration is more severe in the vicinity of the lode channel where the rocks have suffered carbonatization from the introduction of ankerite."

Both Nye (1923) and Edwards (1960) described the mineralogy of the ore in great detail. This will be referred to later in this report.

Exploration beyond the existing development levels has been quite small. The Magnet Silver Mining Company explored the ground to the south by driving the No. 8 level (on the hanging wall vein?) a distance of 800 feet (vide longitudinal Section M007G) and then rising to the south adit on No. 4 level. The results of this drive could not have been encouraging. No records are available as to cross cutting carried out from this exploration drive.

It will be noted that in the proposed drilling programme (in this report) holes M1. and M2. are within this zone of the exploration drive.

The only other phase of exploration was that carried out by Electrolytic Zinc in the early 1950's. The programme was restricted to a limited amount of surface mapping, review of previous literature and the siting of two drill holes WP83 and 84. The position of the intersection obtained in these drill holes are shown on longitudinal section M007G and also on cross section M003G. The section drilled was approximately 500 feet south-west of the Magnet orebody.

Hole No. WP83 intersected the hanging wall vein (vide plan M007G). Values obtained were 0.7% Pb, 3.9% Zn and 1.2 Ag over a drill length of $2\frac{1}{2}$ feet.

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Hole No. WP84 intersected the hanging wall veins and sub-parallel veins at 910-914 $\frac{1}{2}$ feet (0.85% Pb, 1.7% Zn, 1.1 oz. Ag over 4 $\frac{1}{2}$ ft. drill length, 950-963 $\frac{1}{2}$ ft. (0.45 Pb, 1.7% Zn, 1.90 oz. Ag over drill length of 13 $\frac{1}{2}$ feet, 991 $\frac{1}{2}$ -1001 $\frac{3}{4}$ (1.25% Pb, 1.8% Zn, 2.85 oz. Ag over drill length of 10 $\frac{1}{4}$ ft. and 1024 $\frac{1}{2}$ -1026 (2.35% Pb, 2.3% Zn, 3.45 oz. Ag over drill length of 1 $\frac{1}{2}$ feet.

It is assumed that the results of this drilling were considered disappointing and exploration ceased. Cottle had adopted the criteria of lode development as being associated with intersection of shears but no evidence in the present investigation would support the siting of the drills in their position as following this criteria. It can only be assumed therefore that they were sited to test results obtained in the old exploration drive of the Magnet Company. In view of the expected pipe-like nature of ore shoots, statistically they would have been most fortunate to strike an oreshoot in these two holes and in the assessment of the potential they are of little value.

3. CURRENT GEOLOGICAL INTERPRETATION

A. Stratigraphy

The stratigraphic sequence established by Cox has followed the regional extension of the stratigraphy established at Cleveland Mine to the north-east. Cox has proposed the following sequences:

- | | | |
|---|---|--|
| Crescent
Spur

Group

(Dundas
Series) | } | <ol style="list-style-type: none"> 1. Deep Creek Basic Volcanic Formation (<u>Top</u>)
(spilites, variolites, tuffs and pyroclastics). 2. Hall's Formation. (Medium grained chocolate cherts). 3. Crescent Spur Mica Sandstone Formation.
(felspathic greywackes and interbedded shales). |
| Crimson Ck.
Formation | | <ol style="list-style-type: none"> 4. Magnet Creek Lithic Sandstone Formation (<u>Bottom</u>)
(lithic greywackes and interbedded chocolate brown shales). |

B. Intrusives

5. Albite dolerites and peridotites (now mainly serpentinites).

With regard to this succession it should be noted.

- (a) Nye (1923), Cottle (1953), Scott (1954), Solomon & Groves (1964) do not give a detailed stratigraphic succession.
- (b) The Magnet dyke of Nye, Cottle and Solomon & Groves is considered to be part of the Deep Creek Basic Volcanic Formation as exposed in the type area at Cleveland Mine. This volcanic pile contains tuffs, pyroclasts and amygdaloidal spilites.
- (c) The Hall's Formation is poorly developed with cherts at the top of the Magnet Range situated NW of the Magnet Lode (vide plan MOO1G) and represented by only several feet of shale at No. 4 adit portal.
- (d) The Crescent Spur Mica Sandstone Formation is identical to that in Crescent Spur type at Cleveland but slightly coarser grained.
- (e) Magnet Creek Lithic Sandstone occurs in the type area at Magnet Creek at Magnet Mine which are equivalent to the micro breccias of Nye and Solomon & Groves.
- (f) The Intrusive sill-like bodies of albite-dolerite, and serpentinite occur to the NW of Magnet Lode.

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Glasson differs from this interpretation on two points which have wide implication on the structure and possible controls of mineralisation.

The first of these is the relative position of the Magnet Creek Lithic Sandstone Formation and the Mica Sandstone Formation. He is of the opinion that the Magnet Creek Lithic Sandstone Formation overlies the Mica Sandstone Formation. He believes that it is the equivalent of the Deep Creek Basic Volcanics and perhaps facies change in the Hall's Formation.

In both the interpretation of Cox and that held by Glasson there is evidence to support both views and it is not proposed to discuss this alternative interpretation at this stage. However, the structural implication of these alternative views is quite significant as will be shown on the section on structure.

The second point of difference lies in the Hall's Formation at the Magnet Mine. Both subscribe to the view that due to either facieing or shearing within the mine itself the formation has thinned significantly but Glasson is of the opinion that it is largely dolomitic in character and hence the host rock is not the result of wall rock alteration but brecciated pods or fold knots in the dolomite bed being host to the mineralisation. Again it is not proposed to discuss this in great detail but is important if Glasson's concept that only when there is favourable bed and favourable structure, orebodies are located.

The association of mineralisation with dolomitic horizons has been established for Mt. Bischoff, Cleveland and Renison Bell. The fact that only two of these probably lie on the same stratigraphic sequence whilst the third is in a higher sequence does indicate the importance of the favourable bed concept.

C. Structures

The regional folding occurs about NE trending axes with gently plunging folds about appressed limbs follows a similar pattern to that established at Cleveland Mine. The strike varies between 25-30 degrees (magnetic) with steep dips to the NW. The major structure is shown on geological interpretation plan MO01G. This includes a major syncline in the basic volcanics to the NW of the Magnet Lode and the major anticlinal fold to the SE of the Magnet Lode. The Magnet lode is situated in a large regional axial plane fault striking 27° (magnetic) and dipping 60 degrees to the NW. The movement indicated by slickensides is north-west block down and to the SW at approximately 40 degrees relative to the SE wall. This

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movement is similar to that observed in the Cleveland Mine faulting. The major folds observed in the Magnet open cut area plunge 55 degrees to 292 degrees.

A second set of faults (spur faults) strike 360 degrees and dip 60 degrees to the west. The plunge of the intersection of the Magnet fault line and the spur fault is 60 degrees to 297. This corresponds to the plunge of the Magnet orebody and thus on the Longitudinal Section MO07G the trace of this plunge appears to be vertical.

Referring again to the regional structure, the interpretation of the position of the anticlinal axis to the SE of the fault as shown on plan MO01G corresponds to Cox's regional interpretation. However, since Glasson's stratigraphic sequence differs from that of Cox obviously the position of this anticlinal axis has to be located nearer to the Magnet fault (i.e. within the Mica Sandstone Formation).

In order to illustrate this text figure 1A and 1B have been prepared.

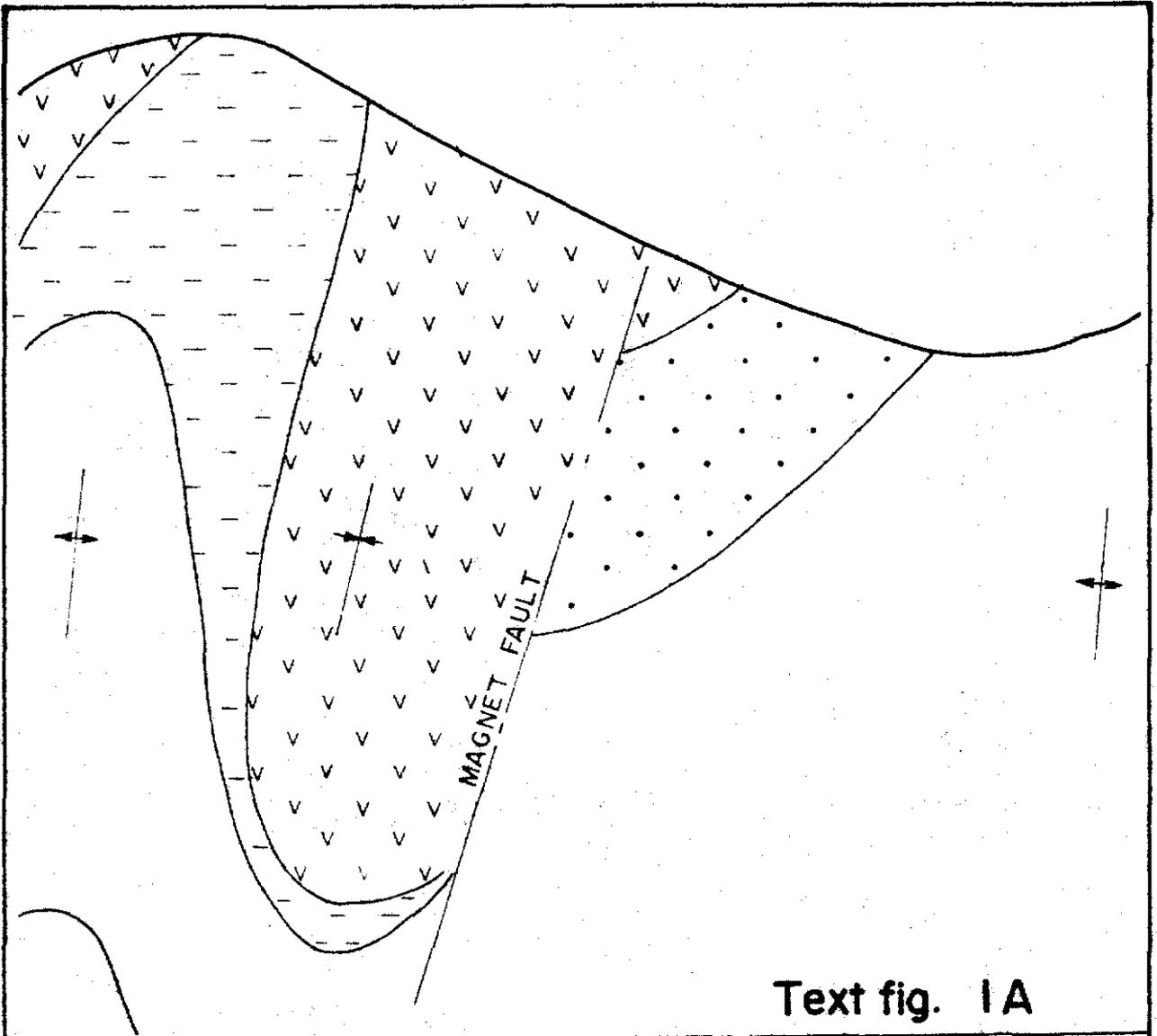
1A. shows the Regional Cross Section looking to the NE as interpreted by Cox.

1B. shows the Regional Cross Section as interpreted by Glasson.

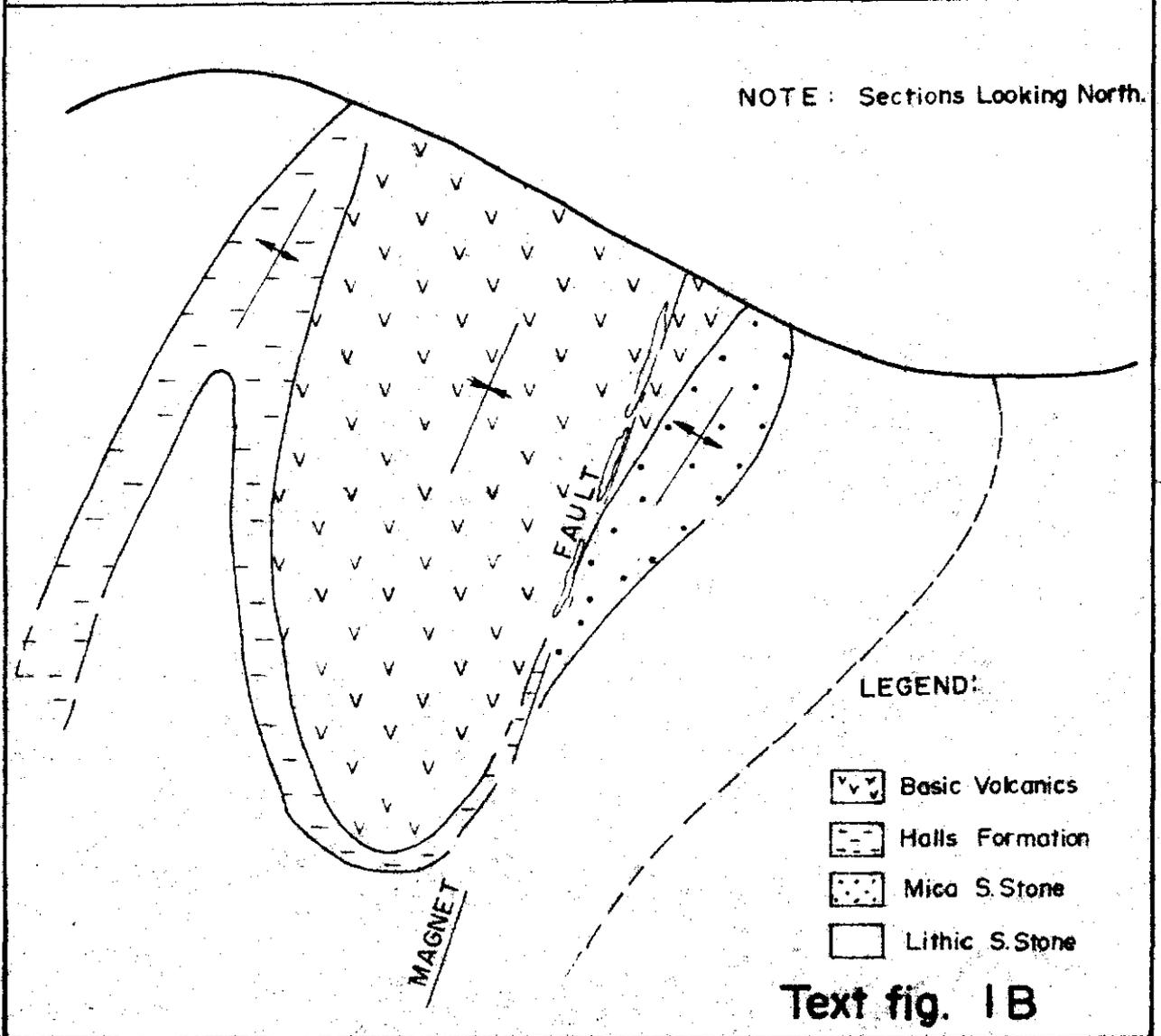
The sections are diagrammatic and it will be observed that the locus of shear intersection for ore deposition and the drilling targets are not altered, but whereas Cox implies structural control only plus wallrock alteration Glasson believes the fold knots in the attenuated zone will be important.

The interpretation of Nye and Cottle that the Magnet orebody is formed by the intersection of a major axial plane shear and a cross shear having a plunge of 60 degrees towards 297 has been mentioned. The intensity of mineralisation at such intersections resulting in a pipe-like orebody is well known. On text figure (2) a sketch of a level plan of the old workings indicates the weakening and bifurcation of mineralisation as the distance from the intersection increases.

As can be observed from longitudinal section MO07G the strike length of the orebody is approximately 300 feet from the surface to the No. 16 level with widths averaging approximately 20 feet.



Text fig. 1A



NOTE : Sections Looking North.

LEGEND:

-  Basic Volcanics
-  Halls Formation
-  Mica S. Stone
-  Lithic S. Stone

Text fig. 1B

D. Mineralisation

In the present study nothing has been added to the previous work of Nye (1923), Stilwell (1938) and Edwards (1960). Dump material has been examined by Glasson in polished section which simply confirms that the lode has a brecciated crustification texture.

In the earlier studies (Nye) of the Magnet lode (hanging wall vein) showed development of coarse grained galena in veins and vugs with a more pronounced banding in the footwall vein. The mineralogy is relatively simple in both veins. The principal minerals are galena, sphalerite (ore minerals) and manganosiderite and ankerite (gangue) with subordinate pyrite. Other minerals of much lesser importance are boulangerite, pyrargyrite, tetrahedrite and minor chalcopyrite. The sphalerite is black having an iron content of 8.9% (Edwards). This mineral is finely ramified with veinlets of carbonate so it is impossible to make a carbonate-free sphalerite concentrate.

Edwards noted that the pyrargyrite and the tetrahedrite occur as minute exsolution blebs within the galena, and that the pyrargyrite also occurs as veinlets associated with manganosiderite and sphalerite.

Nye suggested that mineralising solutions followed both the hanging wall fault (Magnet Fault) and the Footwall or Spur Fault. He stated:

"In the northern ends of the upper levels of the Mine the greater part of the minerals were actually deposited against the hanging wall. In the southern parts of the upper levels the solutions partially departed from this course and traversed north and south planes in the Websterite porphyrite (altered basic volcanic) in which minerals were deposited. The remaining portions of these solutions still traversed the hanging wall and deposited minerals. In the lower levels the same two paths - along the hanging wall and north-south planes in the Websterite porphyrite - were traversed, but the greater part of the deposition took place in the Websterite porphyrite. These planes intersect the hanging wall at angles ranging from 20 degrees to 30 degrees."

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4. EXPLORATION BY ABERFOYLE PARTNERSHIP

The Magnet area has been investigated in considerable detail during the period 1965-67 by a programme of surface geological mapping, magnetometer traverses and geochemical soil surveys carried out over the major part of the Exploration Licence 1-63.

This work involved a large amount of line cutting and detailed field investigations, the full details of which have been described by Cox (1967). This work has enabled a correlation of the stratigraphy with that obtained at Cleveland and an analysis of the structure throughout the area. The field results were plotted on a set of 36 fact plans at a scale of 1 inch = 100 feet.

The exploration between Cleveland Mine and Magnet Workings was based on traverse lines at 500 feet intervals along strike and perpendicular to the strike. These lines were surveyed by compass and tape and pegged at 50 feet intervals. The present Magnet Grid is an extension of the Cleveland Grid. In order to incorporate the previous work carried out by Electrolytic Zinc a survey was carried out connecting their stations onto the Cleveland Grid.

Within the Magnet area the more detailed investigation required a closing up of the traverse intervals. Thus over a strike length of 2000 feet from lines G35 to G39, the interval along strike was reduced to 100 feet and lines 300 feet in length were cut and pegged at 50 feet intervals across the strike. On these lines geochemical samples were taken and additional geological mapping carried out.

Copies of the plans held by Electrolytic Zinc were obtained and core from their diamond drill holes, WP83 and WP84, was relogged. Some petrological work has been carried out on core obtained from this drilling and also from other rocks in the area. This has confirmed the correlation in rock types between the Cleveland Mine and the Magnet Mine.

The work thus far has suggested that the Magnet area presents three favourable loci for development of pipe-like ore bodies similar to the Magnet Mine. This is based on favourable structure and geochemical anomalies.

The geophysical work (magnetometer traverses) has been of little assistance in the mine area since the orebody has no significant magnetic minerals (i.e. pyrrhotite and magnetite). It is possible that self potential traverses might define the mineralised shears and if an opportunity presents this will be carried out.

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Although the rock exposure is restricted it is believed that it has been sufficient to define the main geological boundaries. Additional information might be obtained by draining the No. 4 adit and this will be carried out if warranted at a later stage but would not change the drilling recommendations.

The location of the proposed drill sites has been almost solely due to the results obtained in the geochemical sampling. The interpretation of the geochemical results is shown on plans MO08G-MO11G inclusive.

The index minerals used in the interpretation are manganese, lead, zinc and copper. These require some discussion since so much importance has been placed on the interpretation of the results.

Manganese. (vide plan MO08G). The use of manganese as an index mineral is due to its widespread occurrence as a gangue mineral within the Magnet Mine. Nye (1923) and Edwards (1960) indicated that the manganosiderite mineralisation was contemporaneous with the lead/zinc phase of mineralisation as distinct from the ankerite gangue which was later. Hence, since it is the most abundant mineral it should reflect the main pattern of mineralisation and have a concentration reflecting the path of mineralising solutions. It also has the advantage that it tends to disperse sufficiently in weathering processes to give a secondary halo in the geochemical pattern.

As can be seen on plan MO08G there are two distinct trends in the most northerly anomaly (No. 1) and these trends correspond to the Magnet shear trend and the Spur shear trend. The intersection of these trends occur at section G38B which is adopted as the section for the first two drill holes. Again further south there are two further high anomalous zones centred at G37A and G36A respectively. The spur shear trend is not indicated in the 37A anomaly but is pronounced in the 36A anomaly.

Zinc. (vide plan MO09G). Zinc as an indicator mineral has many disadvantages since it tends to be widely dispersed by ground water movement and often reflects the topography rather than trends of mineralisation. In the 38B section anomaly 1, the most northern anomaly, the pattern follows that of the manganese closely and defines the same trends. In the 37A section (No. 2 anomaly) the pattern is similar to the manganese trend but somewhat weaker and in the 36A section (No. 3 anomaly) the zinc values are almost negligible. West of the No. 3 anomaly on line G36B there is a zinc anomaly which is as yet unexplained, but there is a corresponding anomaly in the lead interpretation (see plan MO11G).

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Copper. The copper content of the ore at the Magnet is small but the high or anomalous values obtained in the other metals is reflected in the pattern of copper values.

Lead. In a non-pyritic ore such as has been worked at Magnet galena is a very stable mineral and hence it is unlikely to be dispersed by ground water movement. In order to detect high lead values it might be necessary to carry out the geochemical sampling at closer intervals than 50 feet spacing already done, i.e. at 25 feet spacing. However, for anomalies 1 and 2 at sections 38B and 37A there is good agreement with results obtained with manganese and zinc. However, the No. 3 anomaly is not shown by the lead values obtained and this throws considerable doubt on this anomaly. It could mean that this position whilst structurally favourable has only had manganosiderite deposition. Alternatively it could reflect zoning in the mineralisation, with the result that at depth the lead/zinc mineralisation increases. For this reason the drill holes proposed will be sited for a deeper intersection.

It should be borne in mind that information is lacking as to the significant values of indicator minerals required under these conditions of weathering and rock type to be diagnostic of an orebody. It is not possible to obtain traverses across the old Magnet workings due to the abundance of dump material and contamination by old workings. However, it does seem that distinct anomalies exist in structurally favourable positions which warrant drilling.

Interpretation and Projection of Anomalies. On the Longitudinal Section M007G the outline of the Magnet workings are shown together with the trace of the intersection of the Magnet shear and the Spur shear (F1) which corresponds to the plunge of the orebody in the plane of the Magnet fault. The centre of the geochemical anomalies are shown for sections G38B, G37A and G36A. The postulated outline of the interpreted ore shoots are shown together with the position of expected intersections for the recommended drill programme. This longitudinal section therefore defines the targets being tested in the proposed subsurface exploration.

On the Cross Section plans M004G - M005G - M006G the proposed drill holes are shown together with expected target and zone of possible shears and mineralisation. The geochemical profiles are also shown for the sections. These plans can be studied in relation to the specific schedule of drilling recommended.

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5. CONCLUSIONS AND RECOMMENDATIONS

1. The Magnet Workings lie in a similar stratigraphic sequence to the Cleveland Mine.
2. The orebody previously worked consisted of a pipe-like body controlled by the intersection of two shear (fault) directions within a dolomitic zone.
3. The orebody had an estimated average grade of +5.7% Pb, 7% Zn, 11 oz. Ag per ton and produced approximately 700,000 tons of ore.
4. The exploration previously carried out has not adequately tested for repetition of similar orebodies further to the south.
5. The recent geochemical and geological interpretation indicates the possibility of three similar orebodies to the south that warrant further investigation by diamond drilling.
6. It is recommended that five drill holes be put into the postulated ore shoots as per the drilling schedule. Drilling to take place using an A1500 machine, "AXT" size core and a total contract footage of 4000 feet. Priority of drilling will follow the numbering of holes. If hole 5 is successful then hole No. 6 will not be drilled under a separate budget.

K. R. Glasson

&

R. Cox

(February, 1968).

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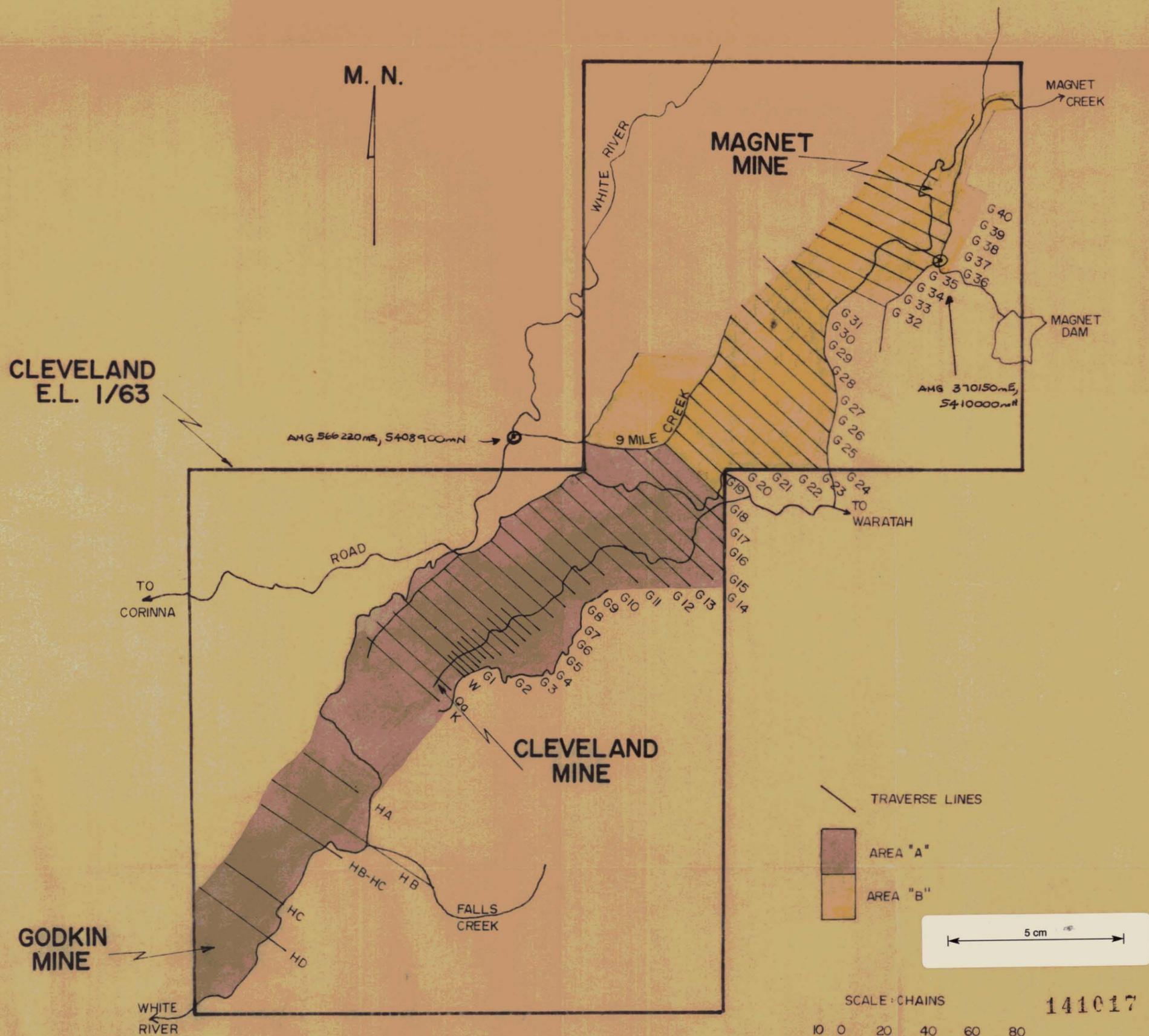
PROPOSED DIAMOND DRILL SCHEDULE

Drill No.	Location	Bearing	Inclination	Total Depth	Lode Intersection
No. M.1.	Cross Section G38A 290' west reference plane	117°	-60°	550	430' RL 1550
2.	Cross Section G38A 480' with reference plane	117°	-65°	900	700' RL 1350
3.	Cross Section G37A 110' west reference plane	117°	-65°	550	420' RL 1500
4.	Cross Section G37A 400' west reference plane	117°	-65°	950	750' RL 1250
5.	Cross Section G36A 250' west reference plane	117°	-65°	900	700' RL 1350
6.	Cross Section G36A 620'	117°	-65°	1400	1120' RL 1050

N.B. No. 6 hole will be dependant on results obtained in previous drilling and not included in initial contract of 4000'.

CLEVELAND EXPLORATION LICENCE 1/63

SHOWING AREAS COVERED BY DETAILED (1" = 100') GEOLOGICAL,
GEOPHYSICAL AND GEOCHEMICAL EXPLORATION PROGRAMMES
AS AT AUGUST 1st. 1967



CLEVELAND
E.L. 1/63

M. N.

MAGNET
MINE

MAGNET
CREEK

MAGNET
DAM

AMG 370150mE,
5410000mN

AMG 566220mE, 5408900mN

9 MILE
CREEK

G19 G20 G21 G22 G23 G24
G18 G17 G16 G15 G14
TO
WARATAH

TO
CORINNA

ROAD

CLEVELAND
MINE

TRVERSE LINES

AREA "A"

AREA "B"

5 cm

SCALE: CHAINS

141017

10 0 20 40 60 80

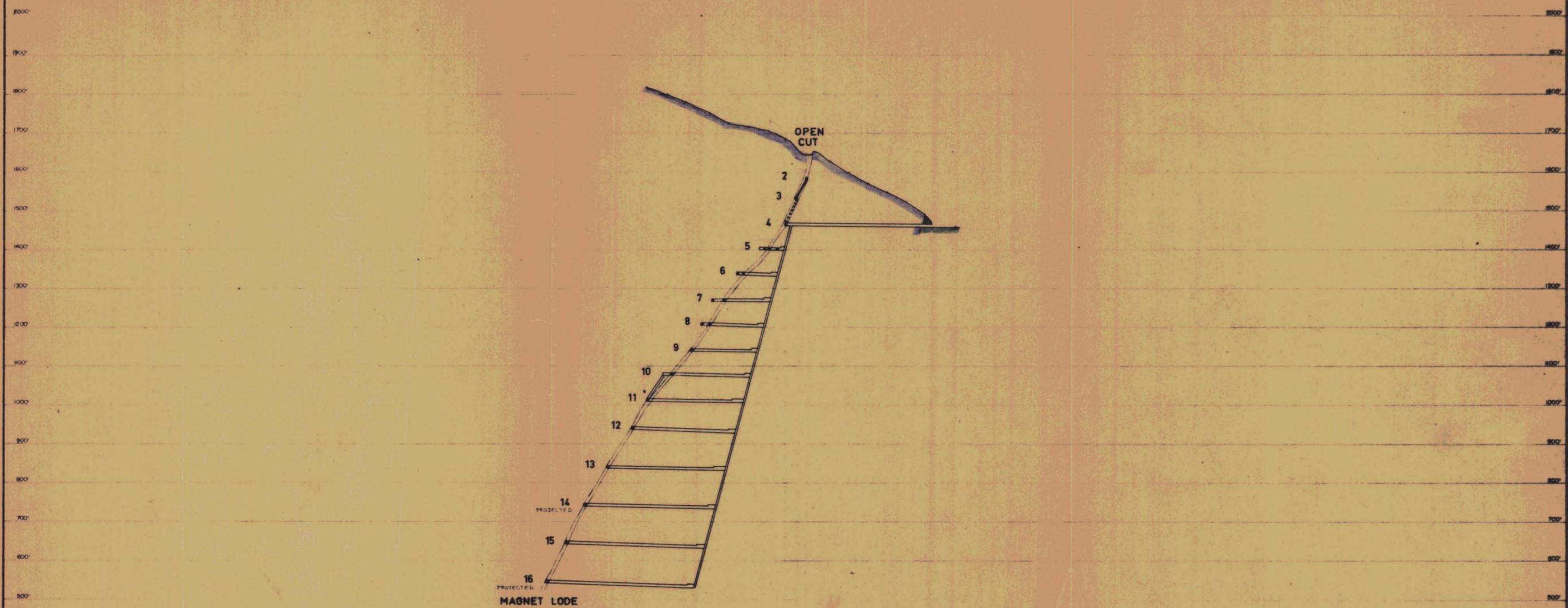
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Roy Cox, 1-8-1967

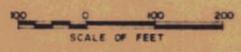
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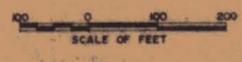
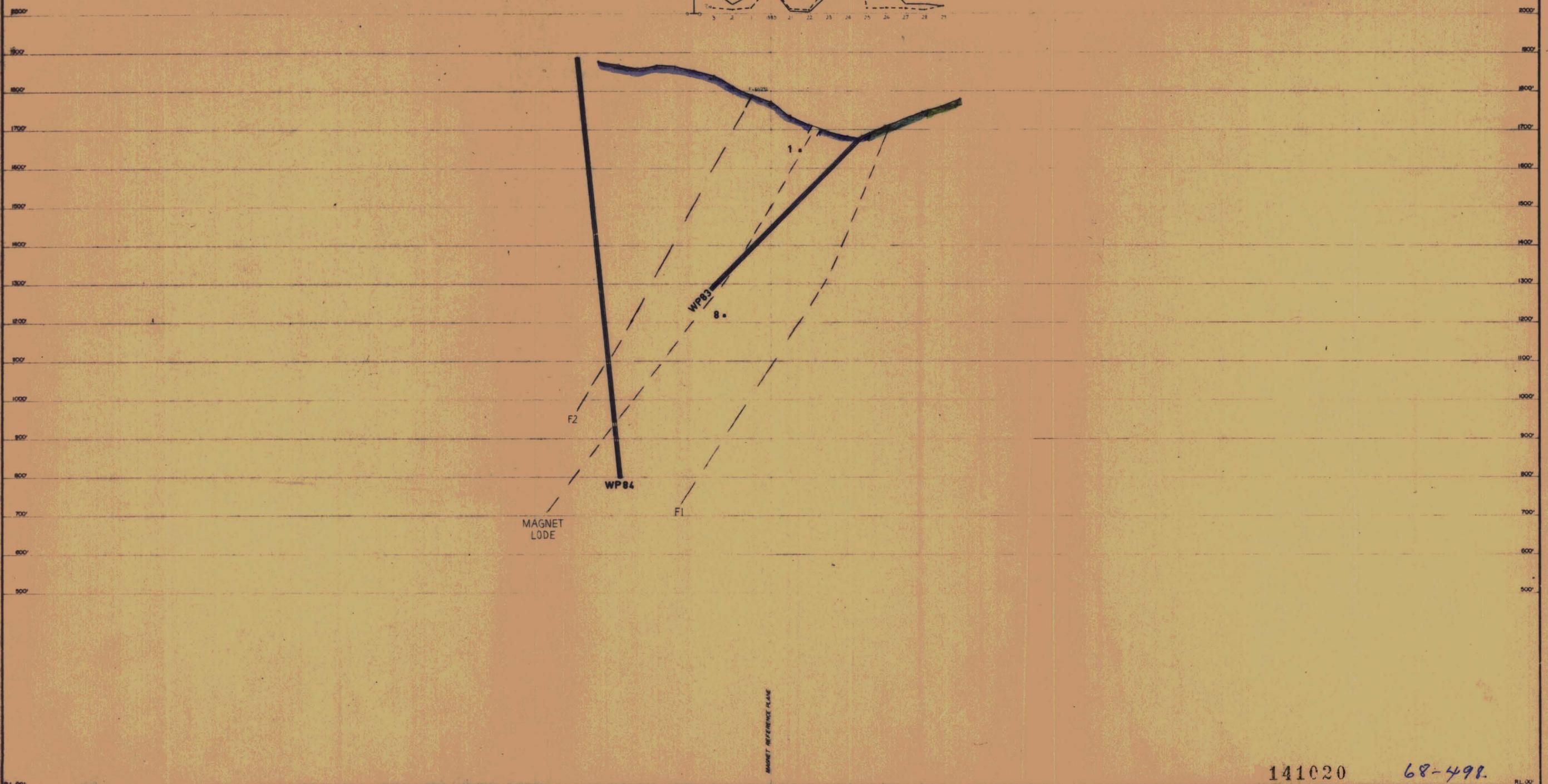
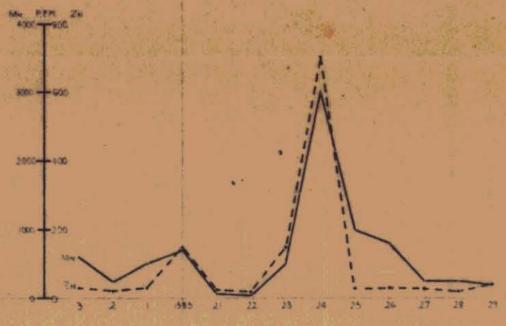


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MAGNET MINE, TASMANIA
CROSS SECTION G40
 LOOKING N.N.E.

SURVEY	- EC, R.C, IR	- / /
GEOLOGY	- R. COX	- / / 1967
ENGINEERING	-	- / /
DRAWN	- R. COX	- / / 1968
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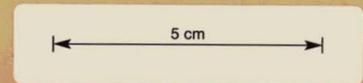
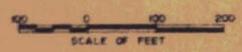
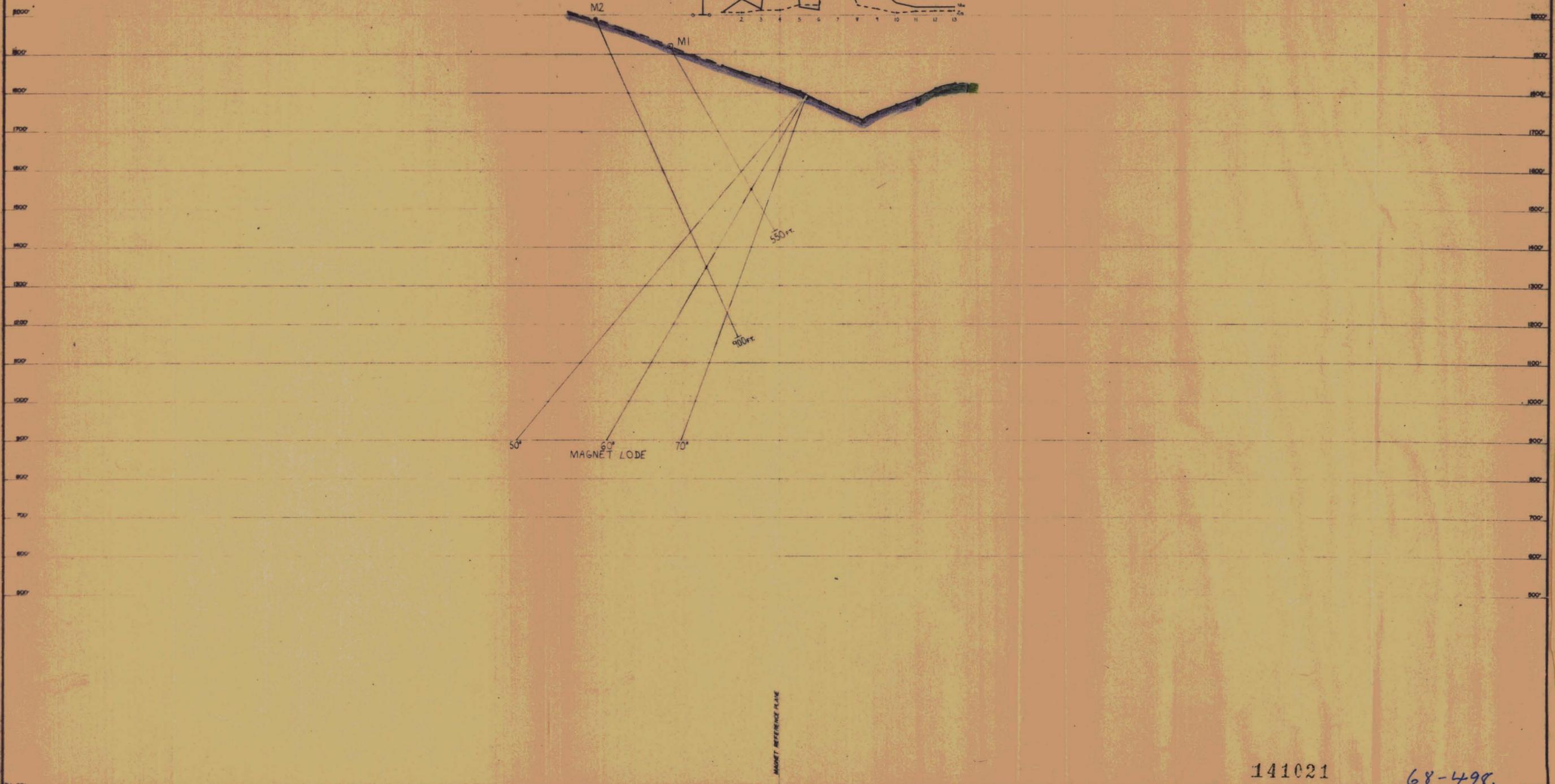
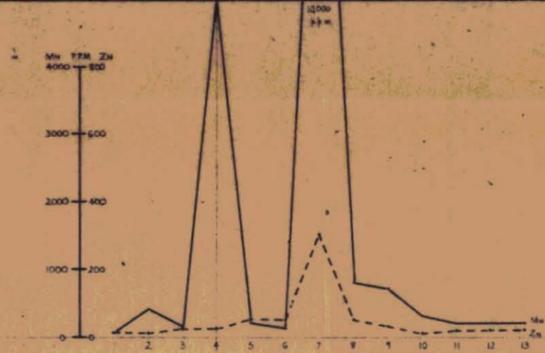


MAGNET MINE, TASMANIA
 CROSS SECTION G 39
 LOOKING N.E.

141020

68-498

SURVEY	-	R.C.	LR	-	/	/
GEOLOGY	-	R.COX		-	/	1957
ENGINEERING	-			-	/	/
DRAWN	-	R.COX		-	/	1958
TRACED	-			-	/	/
REFERENCE	-			-	/	/
PRINT No.	-			-	/	/
DRAWING No. - M-003-G						
DRAWER: 3537						



MAGNET MINE, TASMANIA
CROSS SECTION G38B
 LOOKING N.E.

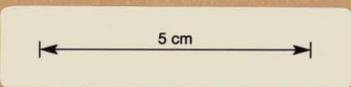
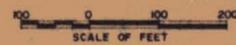
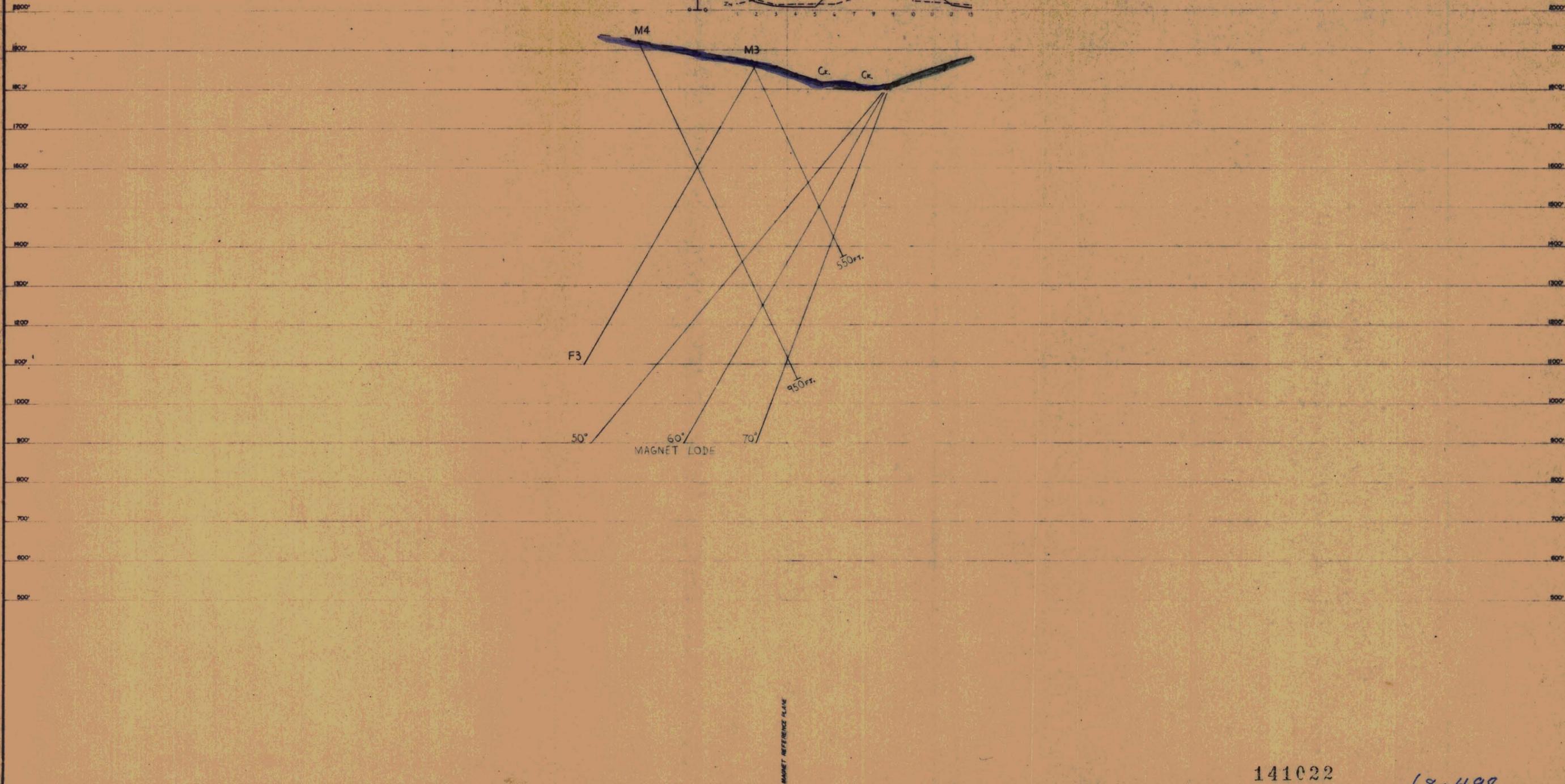
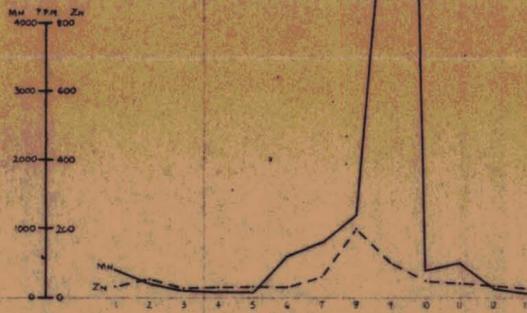
141021

68-498

SURVEY	-	R.C.	IR	-	/	/
GEOLOGY	-	R.COX		-	/	/
ENGINEERING	-	R.COX		-	/	/
DRAWN	-	R.COX		-	/	/
TRACED	-			-	/	/
REFERENCE	-			-	/	/
PRINT No.	-			-	/	/

DRAWING No. - M-004-G

DRAWER 3538

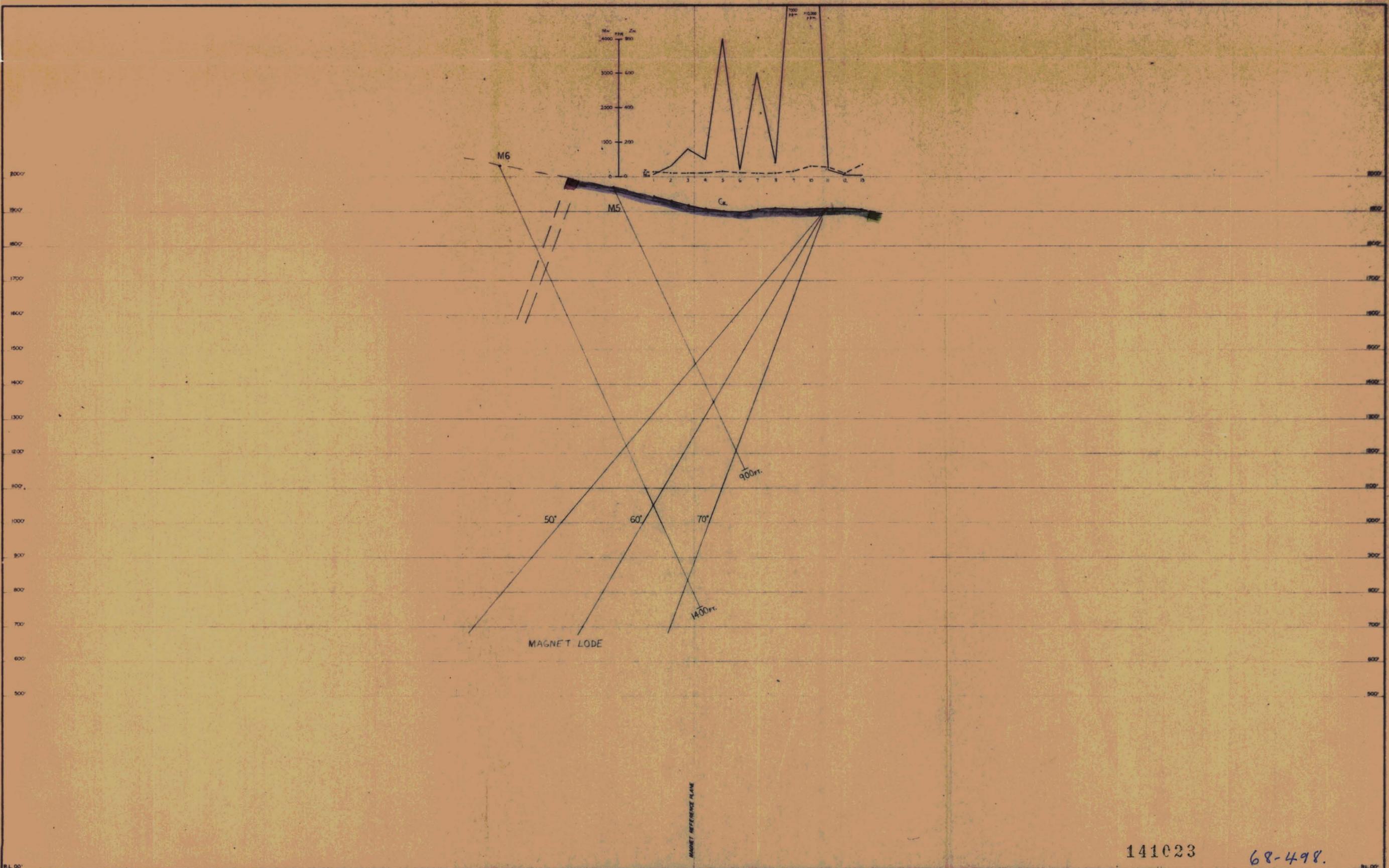


MAGNET MINE, TASMANIA
 CROSS SECTION G37A
 LOOKING N.E.

141022

68-498.

SURVEY	- R.C. IR	- / /
GEOLOGY	- R.COX	- / / 1957
ENGINEERING	- R.COX	- / / 1958
DRAWN	- R.COX	- / / 1958
TRACED	-	- / /
REFERENCE	-	-
PRINT No.	-	-
DRAWING No. - M-005-G		
DRAWER		3529



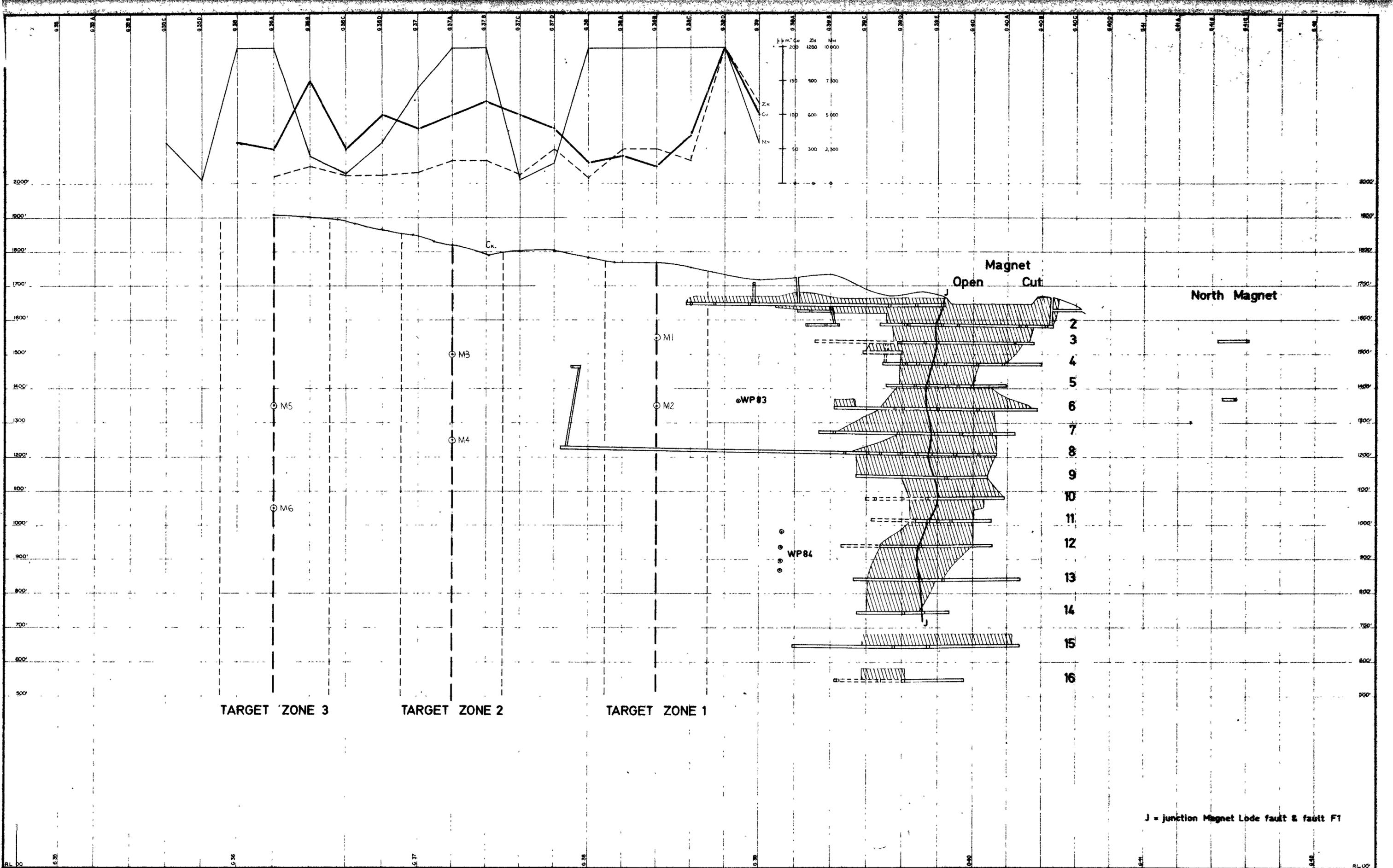
141023

68-498.

MAGNET MINE, TASMANIA
 CROSS SECTION G36A
 LOOKING N.E.

SURVEY	-	R.C. IR.	-	/	/
GEOLOGY	-	R.COX	-	/	/
ENGINEERING	-		-	/	/
DRAWN	-	R.COX	-	/	/
TRACED	-		-	/	/
REFERENCE	-		-	/	/
PRINT No.	-		-	/	/
DRAWING No. - M-006-G					
DRAWER					

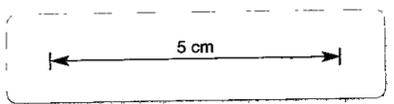
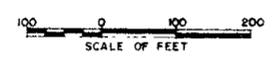
3540



TARGET ZONE 3

TARGET ZONE 2

TARGET ZONE 1

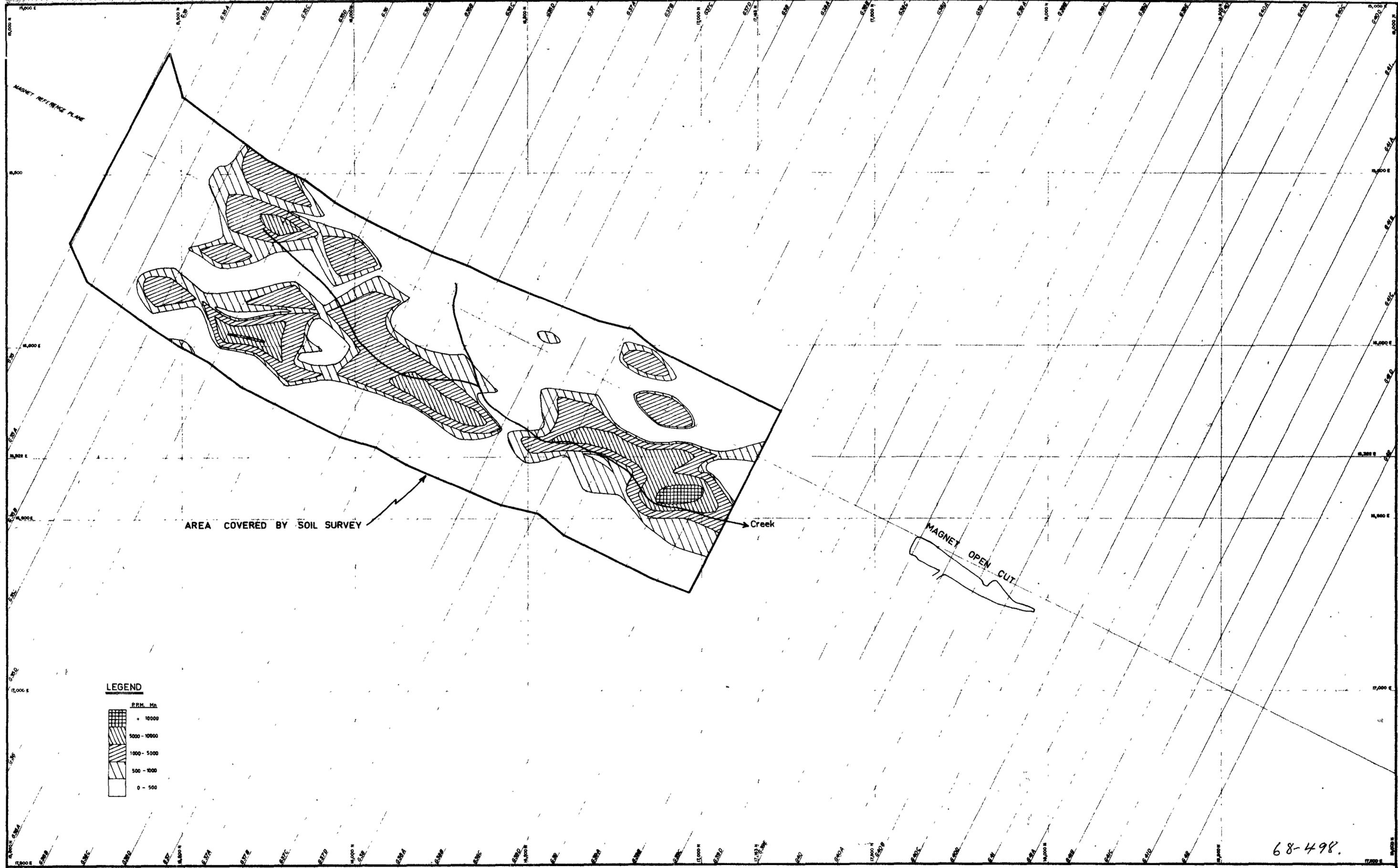


MAGNET MINE, TASMANIA
LONGITUDINAL PROJECTION ON MAGNET REFERENCE PLANE
 LOOKING W.N.W.

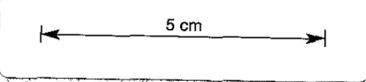
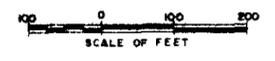
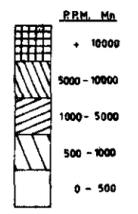
68-498.

141024

SURVEY	- EC, RC, IR	- / /
GEOLOGY	- R COX	- / / 1967
ENGINEERING	- R COX	- / / 1968
DRAWN	- R COX	- / / 1968
TRACED	-	- / /
REFERENCE	-	- / /
PRINT No.	-	- / /
DRAWING No.	M-007-G	
DRAWER	3541	



LEGEND

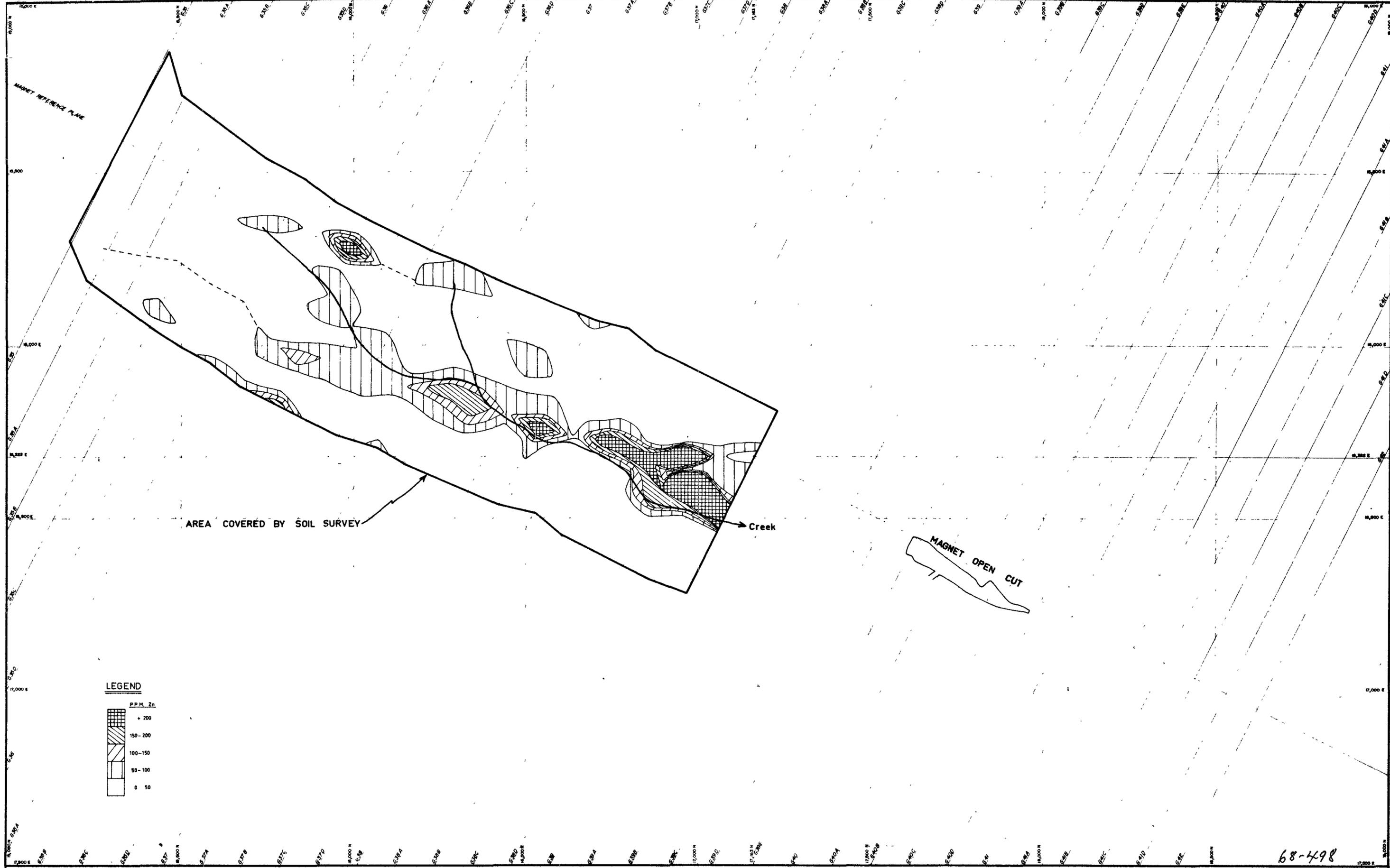


MAGNET MINE, TASMANIA
GEOCHEMICAL SOIL SURVEY - MANGANESE

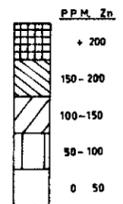
141025

68-498.

SURVEY	-	R.C. JR	-	1967
SAMPLING	-	G. KEYGAN	-	1967
ANALYSIS	-	A. D. E. L.	-	1967
DRAWN	-	R. COX	-	1968
TRACED	-		-	
REFERENCE	-		-	
PRINT No.	-		-	
DRAWING No. - M-008 - G				
DRAWER				3542



LEGEND

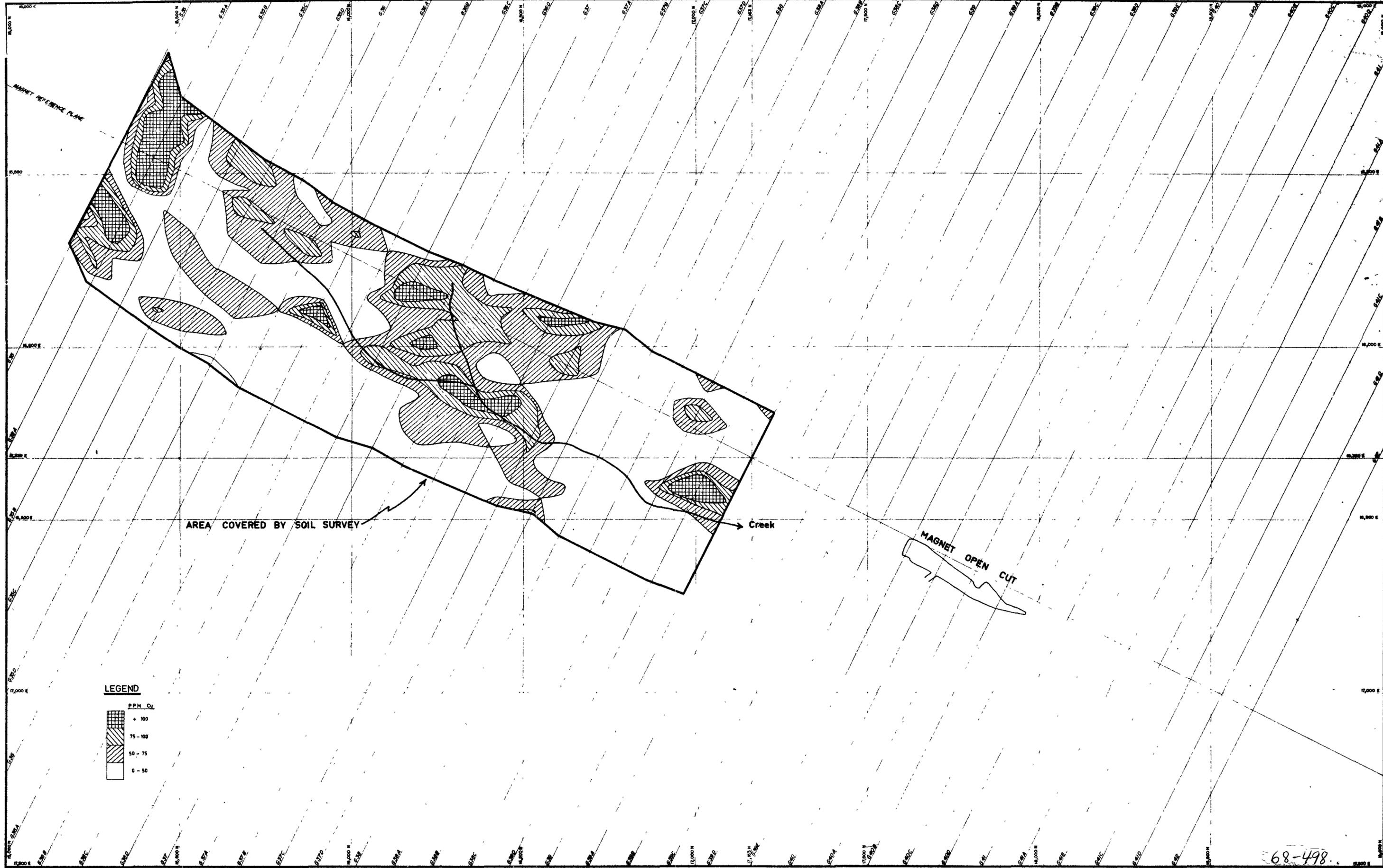


MAGNET MINE, TASMANIA
GEOCHEMICAL SOIL SURVEY - ZINC

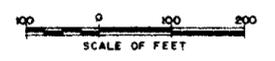
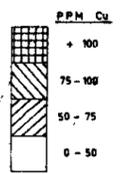
141026

SURVEY	RC, LR	1967
SAMPLING	G KEYSAN	28 / 6 1967
ANALYSIS	A.M.D.E.L	1968
DRAWN	R COX	1968
TRACED		
REFERENCE		
PRINT		
DRAWING No. - M-009-G		
DRAWN		3543

68-498



LEGEND

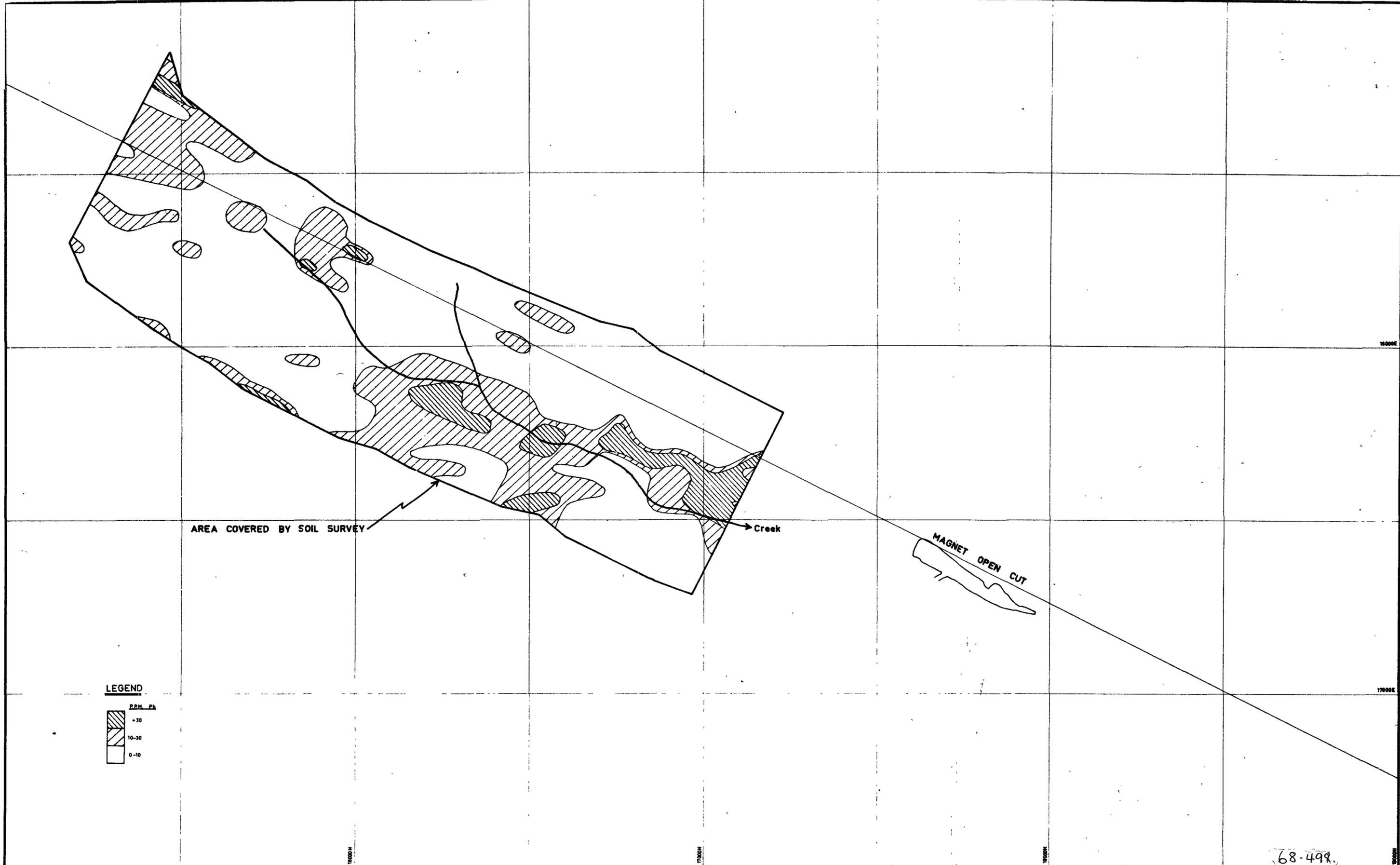


MAGNET MINE, TASMANIA
GEOCHEMICAL SOIL SURVEY - COPPER

141027

SURVEY	R. C. IR	1967
SAMPLING	G. KEYRAN	1967
ANALYSIS	A. M. D. E. L.	20/6/1967
DRAWN	R. COX	1967
TRACED		
REFERENCE		
PRINT No.		
DRAWING No. - M-010 -G		
DRAWN		

68-498



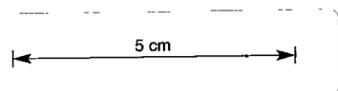
AREA COVERED BY SOIL SURVEY

Creek

MAGNET OPEN CUT

LEGEND

PPM Pb	
[Diagonal lines]	+30
[Cross-hatch]	10-30
[White]	0-10



MAGNET MINE, TASMANIA
GEOCHEMICAL SOIL SURVEY — LEAD

141028

SURVEY	- R.C. LR	- / / 1967
SAMPLING	- G. KEYSAN	- / / 1967
ANALYSIS	- A.M.D.E.L.	- 28 / 6 / 1967
DRAWN	- R. COX	- / / 1968
TRACED	-	- / / 1968
REFERENCE	-	-
PRINT No.	-	-
DRAWING No. - M-011-G		

68-498