286001

ABERFOYLE TIN DEVELOPMENT PARTNERSHIP

The Geology of Mt Bischoff

D E Anderson
T P Hopwood

February 1963

MICROFILMED

63_352

001.

THE GEOLOGY OF MT. BISCHOFF.

Index.

Abstract 2
Introduction 3
Stratigraphy 4
Structure 7
Mineralisation 11
Appendix A 13
Conclusions and Recommendations ... 18.

APPENDIX B – VOLUME 3 Mt Bischoff Plans (1-9)

SUMMARY.

The main ore body of Mt. Bischoff is structurally controlled by a dolomite horizon. The possibility of a recurrence of an ore body within this horizon recommends a thorough structural analysis to attempt to determine the distribution of the dolomite, away from the main open cut. The structure, although complex, can be divided into smaller simpler areas, which can then be synthesised to a composite picture, as presented in the block diagrams included in this paper.

It should be possible, using the structure as presented above, from the sections, maps and block diagrams, to predict the whereabouts of the dolomite and thus the possible occurrence of further mineralisation.

Before any drilling is carried out, a thorough search into all available underground data (drillhole, shafts, adits, etc.) is recommended. It is also suggested that geological reconnaissance work be done on the southwestern side and base of the mountain to check if the dolomite does or does not reappear. This is suggested to confirm, or modify the structural picture, as presented.

Possible sites for the occurrence of the dolomite/mineralisation within 200'-300' of the surface are:

(a) Immediately west of the NS fault along the western side of the open cut, to try and pick up the dolomite as it is faulted down from Gossan face.

(b) Gossan face itself.

(c) Immediately south of the fault in White face.

003

INTRODUCTION.

A structural analysis of Mt. Bischoff was made in an attempt to find out the possibilities of a recurrence of the dolomite horizon in which the main ore body is situated. This was done by three geologists, David Anderson, Jim Couper and Tim Hopwood, during six weeks in Jan.- Feb. 1963.

Tin mineralisation at Mt. Bischoff is of two types -

1). Mineralisation is associated with dolomite rocks (pyrrhotite-tin),

2). Quartz-Cassiterite veins following a-c joints or fault zones.

Previous work of importance on the area is contained in the reports of Reid (1932), Knight (1948), and Solomon (1954).

The structure is complex. This complexity is resolved by dividing the area into smaller subareas in which the structure is relatively simple and synthesising these areas to give the total structural picture.

The maps were compiled using a theodolite as control. Outcrops and structural data only have been placed on the map; Knight's topography and his mapping of the porphyries has been used to save time; this data has been checked as often as possible and found accurate. The survey was based on the mine survey grid of the original Bischoff Company. A separate data sheet containing some trig stations and major survey stations used furing this mapping has been compiled.

From the series of 100' scale and 50' scale outcrop maps a series of interpretive maps and sections were made. The outcrop patterns were inferred using hands from structural data measured in the field. Within the quarry the distribution of strucutral data is good and interpretation on a scale of 1"=100' is reasonably reliable with not too large an error. Outside the open cut however, interpretation on a scale larger than 1"=200' is not warranted because the order of error at a larger scale would tend to make the map meaningless.

286005

004

STRATIGRAPHY.

The sequence of rocks exposed at Mt. Bischoff is a monotonous succession of shales and quartzites, and a dolomite horizon.

Petrographic data (see Appendix A) indicates that the dolomite is a normal sedimentary rock. Spatially associated with the dolomite is a complex group of altered and mineralised rocks (lode-material) and intercalated talc rocks and black shales. All of these rocks belong to a single stratigraphic unit the base of which is defined as the upper surface of a thick quartzite unit (70'), and the top, as a contact between dolomite and black shales and quartzites. This unit is referred to the "dolomite unit" in the stratigraphic column.

The general environment of deposition of the sequence can be deduced from the numerous sedimentary structures present in the shales and thinly bedded quartzites as an unstable, shallow water environment. Lateral discontinuity of beds and abrupt facies changes evident in hand specimens and single continuous exposures will be typical of the whole sequence. This, combined with the monotony of the sequence, causes difficulty in the definition of stratigraphic units. However the sub-division of the sequence given below is workable within the mine area, although it would be difficult to extend for any distance in the absence of continuous exposure or across major faults. The last difficulty actually occurs across the fault along the western margin of the open cut where the correlation of units on the western block is somewhat precarious (see page).

The stratigraphic sequence, with approximate thicknesses is;

005

286006

TOP.

White Shales: finely bedded, numerous sedimentary structures	(70' +)	9
Thick Bedded Quartzite: numerous very fine shale layers	(120')	8
White Shales and thin bedded Quartzites	(120')	7
Black Shales and thin bedded Quartzites (occasional white shales)	(200-240')	6
Dolomite Unit	(150')	4
Quartzite: massive, fine grained	(70')	5
White Quartzite Shales	(250')	3
Massive Quartzite (occasional shale horizons)	(300')	2
Bedded Quartzite + black Shales	(300'+)	1

BOTTOM.

Thicknesses are only approximate. Further details of some of the lithologies are given in Appendix A.

Igneous Rocks.

Numerous sills and dykes of quartz porphyry intrude the sediments at Mt. Bischoff. They are disconcordant and on a local scale very irregular. Intrusion has caused brecciation and minor faulting of the immediately adjacent sediments; but little in the way of contact metamorphism.

007

STRUCTURE - GENERAL.

The understanding and compilation of the structure of Mt. Bischoff is given by the series of interpretive maps and sections (stratigraphic maps 100' and 200' scale) which give the size, shape, distribution and orientation of folds, together with perspective field sketches and stereographic projections which give the style of folding and the data necessary for the construction of the final block diagrams.

The structure can be seen at a glance in the block diagrams. Generalised, the structure of the mount is a large faulted asymmetrical anticline, with an approximate east-west axis, with its southern limb faulted and folded, or flanked to the north by a series of synclines and anticlines. This overall structure can be seen from the stereos (Diag. 9) to be plunging at about 20° to the west-southwest. Within this broad picture there are many smaller inhomogeneous folds which distort the major structure. This variability can be seen in the block diagrams (Diags. 7 and 8) and in the stereographic projections (Diag 9).

Deformation is mainly by flexural slip folding, but pure kinking is sometimes seen. Several sketches of small scale folds in outcrops at various localities are included (Diags. 5a,5b). These diagrams show the style or manner of variation of fold axes and are an indication to the type of deformation on a macroscopic scale (map scale).

Faulting also has an effect on structure, and generally has one of three relationships to the folding:

1). Axial planes of folds are faulted out, commonly so that the limb of a fold parallels the fault on one side.
2). Faults occur sub-normal to the axes of major folds.
3). Faults may separate two sub areas differing radically in the orientation of their fold-axes.

008

286009

Structure within the Quarry (Diag.3, Diag.7).

The quarry as a whole lies within the faulted longer, (southern) limb of the major structure. This limb is folded variably and the structure of individual areas is as follows:

a. Brown Face and Desert Face.

Brown Face lies within an asymmetrical synclinal depression which is faulted on its southern side (due to plunge differences). This syncline changes from a single large amplitude fold into several small folds as it plunges out over the top of Desert Face.

b. Slaughteryard face includes the crest of the faulted anticline immediately south of Brown face, the southern limb of which is folded about axes inclined to the main fold. There are several smaller faults within this structure (see 50' scale compilation sheet).

c. Gossan face and White face are essentially the same limb of a fold (faulted in Gossan face) dipping towards the south. To the west of the Gossan face and Slaughteryard face this structure is cut off by the large north south trending fault lying along the western side of the open cut. To the east of White face the mineralised horizon passes out of the cut, (as in Desert) on plunge. Immediately south of White face there is a large fault (due to discrepancy in plunge) which separates the White face structure from the structure in Happy Valley.

d. To the south of the open cut the dolomite horizon dips steeply under overlying sediments and in Happy Valley a large anticlinal structure plunges steeply to the south east, underneath overlying rocks.

Structure of the Area surrounding the Cut.

C Complete determination of structure away from the main cut

is blighted by a difficult stratigraphy, including a lack of marker horizons and possible discontinuity of sedimentary layers. Determination of this structure is based on inference from structural data (foliation, fold axes, axial planes, etc.) and must necessarily be tentative.

a. North Valley and East Ridge

The structure here is relatively simple as can be seen from the sections and block diagram - essentially an anticline and syncline with a subhorizontal east-west axis - the plunge steepens and then shallows further west but the structure is generally the same. The lode horizon is well above this structure and does not reoccur in this area.

b. West of the Open Cut.

It is believed that this area is the down faulted block of the north south fault along the western side of the open cut. Reasons for this direction of movement are as follows;

1) The stratigraphy resembles the sequence above the dolomite and has no counterpart in the sediments underneath.

2) If the western side were upthrown, the dolomite horizon should appear low down on the south western slopes of the mountain. This, of course assumes that the dolomite horizon is continuous as it appears to be from exposures in the open cut.

3) The reappearance of the dolomite south west of Bischoff has not been recorded, so the conclusion is that the fault is down thrown and the dolomite occurs beneath the sediments which outcrop on the western half of the mount.

c. South East of the Open Cut.

As can be seen from the block diagram (Diag.8) the fault continuing from White face separates folds whose axes lie at

approximately 90° to structures continuing from Happy Valley. These latter folds plunge steeply south east from Happy Valley. Theoretically the dolomite occurs at depth under these south eastern slopes.

MINERALISATION.

Tin occurs in two main modes within the mine area;

1. Replacement bodies
2. Fissure veins.

1. Replacement Ore bodies.

These bodies are formed by the replacement of rocks of the dolomite unit and to a lesser extent the porphyries by cassiterite and tin-bearing sulphide minerals. Most of the ore previously won from Mt. Bischoff comes from ore-bodies of this type (i.e. Brown Face, Slaughteryard face, Gossan face, White face, and Happy Valley).

Reid (1923, p.94) makes the following observations concerning these ore bodies; "Such replacements are made by tin-bearing pyrrhotite and to a lesser extent by tin-bearing pyrite and where action by the mineralising solutions has been greatest a complete quartz-cassiterite replacement of the dolomite occurs".

Replacement of the porphyries occurs in several places (e.g., Stanhope Quarry, Queen Dyke, Western Dyke) but the average grade of tin so far mined is only 0.2%.

The general shape of the dolomite unit can be seen from the block-diagrams and sections and is summarised in the structural section. It is obvious that most of the available lode horizon has been removed from Brown Face, the Slaughteryard face and White face, and there is no chance of extending these bodies laterally or downwards. The lode horizon, however, still exists in the southern limb of the syncline in Gossan face and the gently undulating sheet to the south, and in the down-faulted block south of White face (including Happy Valley).

2. Fissure Veins.

Fissure veins following faults and joints are numerous in

the Bischoff area (For full list of worked veins see Reid,1923). No new ore bodies of this type were discovered during the present survey.

Although some of these bodies are locally rich in ore, the distribution of ore is haphazard and difficult to detect by analytical methods. However some data has been collected on the mineralisation of joints and minor faults in both sediments and porphyries. Of the numerous planes present in both rocks only a relative few are mineralised; in particular only joints and minor faults with a dip of 50° to 90° towards the south or south-west and a strike between 310° and 360°. Also the major mineralised fissures (mainly faults) which have already been mined have this general orientation (Giblin Lode, North Valley Lode, South West Vein No.1 and No.2, North East Veins, Thompson's Vein).

013

286014

APPENDIX A.

Petrology.

(i). Origin of the Dolomites.

Reid (1923,p.60,61,86) contends, on the basis of chemical and petrographic data, that the dolomites are the product of extreme hydrothermal alteration of intrusive basic rocks (peridotites) and consequently have no stratigraphic sequence. Field evidence tends to contradict this suggestion (See also Knight, 1948, and Solomon, 1954) but thin sections leave no doubt that the rock is a normal sediment.

Unmineralised dolomite sampled in Happy Valley is a typical Lithocalcarenite:- angular fragments of limestone and dolomite and angular grains of calcite in a partially recrystallised carbonate cement. Veins of clear carbonate are numerous, whilst quartz is a minor component.

Chemical tests on the thin section reveal that calcite is almost universal;;dolomite being restricted to some of the pebbles. Vein carbonate is almost exclusively calcite. Unalte-red dolomite from the Slaughteryard is essentially similar, although more evenly recrystallised. None of the features of the rock can be reconciled with Reid's hypothesis.

Dolomitisation is a t least partially concurrent with mineralisation. Veins visibly related to the mineralisation in the Slaughteryard sample are of dolomite, individual crystals being separated from the enclosing calcite by a fine coating of hematite. The gangue associated with the ore is also a Mg-carbona te.

Undoubtedly altered basic rocks intrude the sediments, but these are distinctly different from either the dolomite or its alteration products. Such a rock intrudes the sediments in the southern part of the Gossan face and is in turn invaded by the

286015

014

Porphyry. The rock is now composed wholly of a mesh of acicular actinolite crystals and small amounts of an interstitial zeolite. Small dykes of the same material outcrop in several places.

Alteration of the Dolomite.

Two other groups of rocks have been included, along with the unaltered dolomite, in the dolomite unit.

(i) Quartz-Sulphide rocks

(ii) Talcose rocks, talc shales.

(i) This type of rock is an aggregate of quartz and sulphides (commonly tin bearing pyrrhotite and pyrite) which with progressive decomposition of the sulphides gives first a very friable rock and then an unconsolidated quartz sand. This undoubtedly is the source of the cassiterite rich sands mined in the early days in Brown Face, White face, Gossan face and Happy Valley (See Reid, 1923, p.p.94-96).

The quartz and sulphide form thin discontinuous foliae, the origin of which are obscure. The fabric of the quartz is peculiar and of a form that immediately suggests that the quartz is replacing some previous mineral. No trace of this mineral now remains.

The uncommon halide Sellaite is present in varying amounts in these rocks; usually much subordinate in quantity to quartz, but in the hard pyrrhotite lode rock exposed in the Western end of the Slaughteryard it appears to the exclusion of all other gangue minerals. Zircon, cassiterite and talc are minor components in all these rocks, whilst no carbonate has been detected.

It is probable that these rocks are truly a replacement of the dolomite, and not of some sedimentary rock intercalated with the dolomite.

(ii). The basal part of the lode horizon is marked in several places (especially Gossan face) by the presence of fine grained, often foliated rocks, in which talc is the dominant, or, only component. These rocks have been partially mineralised, but never to the extent of the enclosing dolomite. Where these rocks are mineralised (both pyrrhotite and pyrite) the ore is separated from the talc by fine veins of hematite and quartz crystallites growing perpendicular to the boundary of the ore. Quartz, hematite and magnesium carbonate form the gangue. The last mineral forms laminated concretionary growth; each layer being separated by a fine vein of hematite.

It is probable that the above rocks, along with complex talc-chlorite-zeolite rocks not sampled, have originated by extreme alteration of the dolomite or dolomitic shales.

A variant of these rocks is fine grains of clastic quartz set in a matrix of fine mica (?), which is obviously derived from a shale.

Quartzites.

The term "quartzite" has been used in the field as a name for a number of rocks, some of which are not true quartzites. The presence of a buff-coloured weathering rind on many of the quartzites exposed in the open-cut implies the presence of a considerable quantity of a mineral other than quartz.

Spec.6 from the "quartzite" immediately beneath the dolomite unit in the Slaughteryard belongs to this category. The hand specimen is a compact, fine grained grey rock in which bedding is rare. The section reveals approximately equal quantities of both quartz and an epidote mineral, with accessory iron ore. Spec.3 also carries considerable epidote, but in lesser quantities than Spec.6. The nature of the quartz boundaries - interlocking

and sutured - compares with those in quartzites unaffected by mineralisation and proves incipient regional metamorphism. The epidote, however, might result either from this metamorphism or localised thermal metamorphism. The non-appearance of epidote in altered feldspars from Don Hill quartzite suggests the latter is probably the case. Although the epidote is so fine as to be only recognisable in thin section, it may provide a valuable criterion for the proximity of mineralisation.

The thin bedded quartzite from Don Hill are fine grained, toughy compact rocks in which quartz is the main constituent. Quartz bounderies are mutually sutured. Flakes of muscovite are rare, but fine sericte replacing almost totally altered feldspar is important.

Quartz Porphyries.

It is necessary to give some consideration to the role of the porphyry in the process of mineralisation. There can be little doubt that the porphyries are genetically related to the source of mineralisation, but it is necessary to distinguish between two cases

(i) The porphyries are the sole source of the mineralising solution. Consequently any extension of the ore requires the presence of porphyry.

(ii) The mineralisation has, to a great extent, proceeded independently of the prophyries, although they carry some tin. The porphyries have, along with sediments of suitable composition, been altered and mineralised by the ore solutions.

The following facts seem to support the second idea;

(i) Most of the faults are patchily mineralised in a manner quite independent of the porphyries.

(ii) Much of the mineralisation of the dolomite seems to

017

286018

be more closely related to faulting than the presence or absence of the porphyry.

(iii) The mineralised joints in the porphyry are "open" tension joints parallel to ac tension joints in the enclosing sediments. These joints are more regular and continuous than those of the sediments and may have provided a more ready channel for mineral solutions.

(iv) The porphyries are completely barren away from the open cut. The area of intense mineralisation corresponds with the presence of mineralised fault planes.

Although no definite conclusions are warranted(in the absence of more detailed petrology) the authors firmly believe that faulting and shearing are more important in the formation of ore bodies than the proximity of porphyry.

It follows from the above view (combined with the low percentage of tin in occurrences such as the Stanhope Dyke etc; and the irregularity of the porphyries) that the porphyries cannot be considered as a potential source of tin, except where they have been mineralised in association with the dolomite. A fault is associated with all the known ore bodies, so that any extension of the dolomite across a fault is a potential source of ore.

286019

018

CONCLUSIONS AND RECOMMENDATIONS.

The mineralisation of Mt. Bischoff appears to be dependent on structure rather than the effects of the porphyries. Mineralisation appears to be restricted to the intersection of faults with the dolomite horizon, or other available favourable rocks. Thus any economic occurrence of ore will generally depend on the faulting of the dolomite.

Within the open cut there are two favourable areas:

(1) Gossan face - against the NS fault along the western side of the open cut - and possibly further south, at depth, along the eastern side of the fault.

(2) Immediately south of the fault in White face, with possible further extensions at depth eastwards along this fault.

Possible occurrences of dolomite/mineralisation outside the open cut are dependent on the stratigraphic continuity of the dolomite, and assuming this, the following areas suggest investigation:

(1) The area immediately west of the NS fault along the western side of the quarry - centred in black shales and bedded quartzites (1250 W, 500 N).

(2) The area immediately east of the downthrown block of the fault in White face (00,1000 N and further east). In this area caution must be exercised as the plunge is steep, which would take the dolomite quickly below economic depth.

(3) Possible recurrences, with respect to structure, could occur in the area of the southwestern slopes of the mountain, below the western road.

The main consideration is firstly to check on the structure, especially on the southwestern sides, which is dependent on the movement of the NS fault along the western side of the open cut.

019

286020

This may be aided by investigation into any available underground data (drillholes, adits, etc.). Easier targets lie in the cores of anticlines. The second important point is that the mineralisation is fault dependent and unless faulting occurs the dolomite will be barren.

In summary then, there are two important points to bear in mind in ore search:

(1) Confirmation or determination of the correct geology to ascertain the recurrence of the dolomite.

(2) Occurrence of mineralisation will depend on faulting.

(3) No further exploration with respect to the porphyry dykes is warranted.

286021

VOLUME 2

LIST OF DIAGRAMS :

	Mt Bischoff Legend for Plans	
1.	Interpretive Map of the Stratigraphy of the Open Cut Mt Bischoff	1 inch : 100 feet
2.	Interpretive Map of the Structure & Stratigraphy of Mt Bischoff Tasmania	1 inch : 200 feet
3.	Geological Sections Mt Bischoff Open Cut	1 inch : 100 feet
4.	Geological Sections Mt Bischoff	1 inch : 200 feet
5a.	Structure of Mt Bischoff – Field Sketches	
5b.	Structure of Mt Bischoff – Field Sketches	
6.	Structure of Mt Bischoff	1 inch : 200 feet
7.	Structural Interpretation of the Geology of Mt Bischoff Tasmania	1 inch : 100 feet
8.	Structural Interpretation of the Geology of Mt Bischoff Tasmania	1 inch : 200 feet
9.	Stereographic Projections Mt Bischoff	(MISSING)

MT. BISCHOFF
LEGEND FOR PLANS

286022

MASSIVE SANDSTONE - QUARTZITE

DOLOMITE

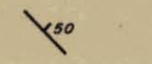
BLACK SHALE

MINERALIZED DOLOMITE & SHALES

THIN INTERBEDDED Q.ITE & SHALES

PORPHYRY

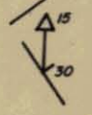
ALTERED BASIC ROCK



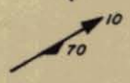
STRIKE & DIP OF FOLIATION *Bedding in most cases S_1 or S_2*



PLUNGE OF MINOR FOLD AXIS $B^{S_3}_{S_2}$



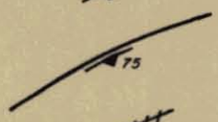
PLUNGE OF FOLD AXIS & DIP OF AXIAL PLANE



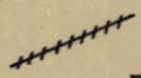
MINOR FAULT WITH SLICKENSIDES



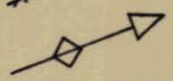
MINERALIZED JOINT



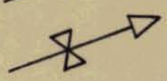
MAJOR FAULT



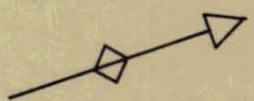
SHEAR - ZONE OF BRECCIATION



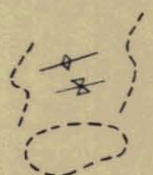
SMALL PLUNGING ANTICLINE IN FIELD



SMALL PLUNGING SYNCLINE IN FIELD



MAJOR ANTICLINE — SUB-AREA



TREND OF FOLIATION

OUTCROP BOUNDARY



GEOLOGICAL CONTACT

63-352

6732

286023.

INTERPRETIVE MAP OF THE STRATIGRAPHY OF THE OPEN CUT MT. BISCHOFF

5 cm

DIAGRAM 1

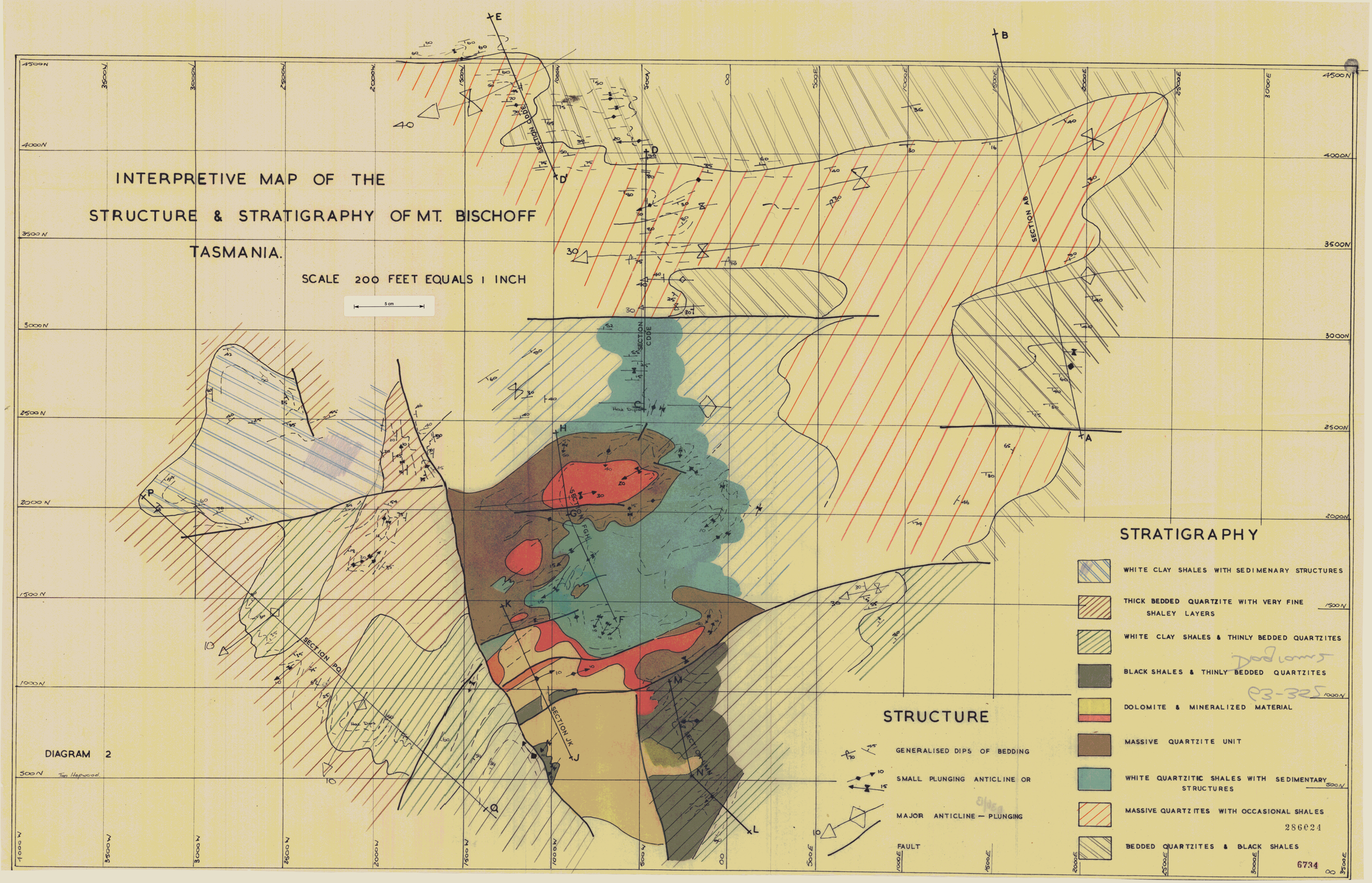
SCALE 100 FEET EQUALS 1 INCH

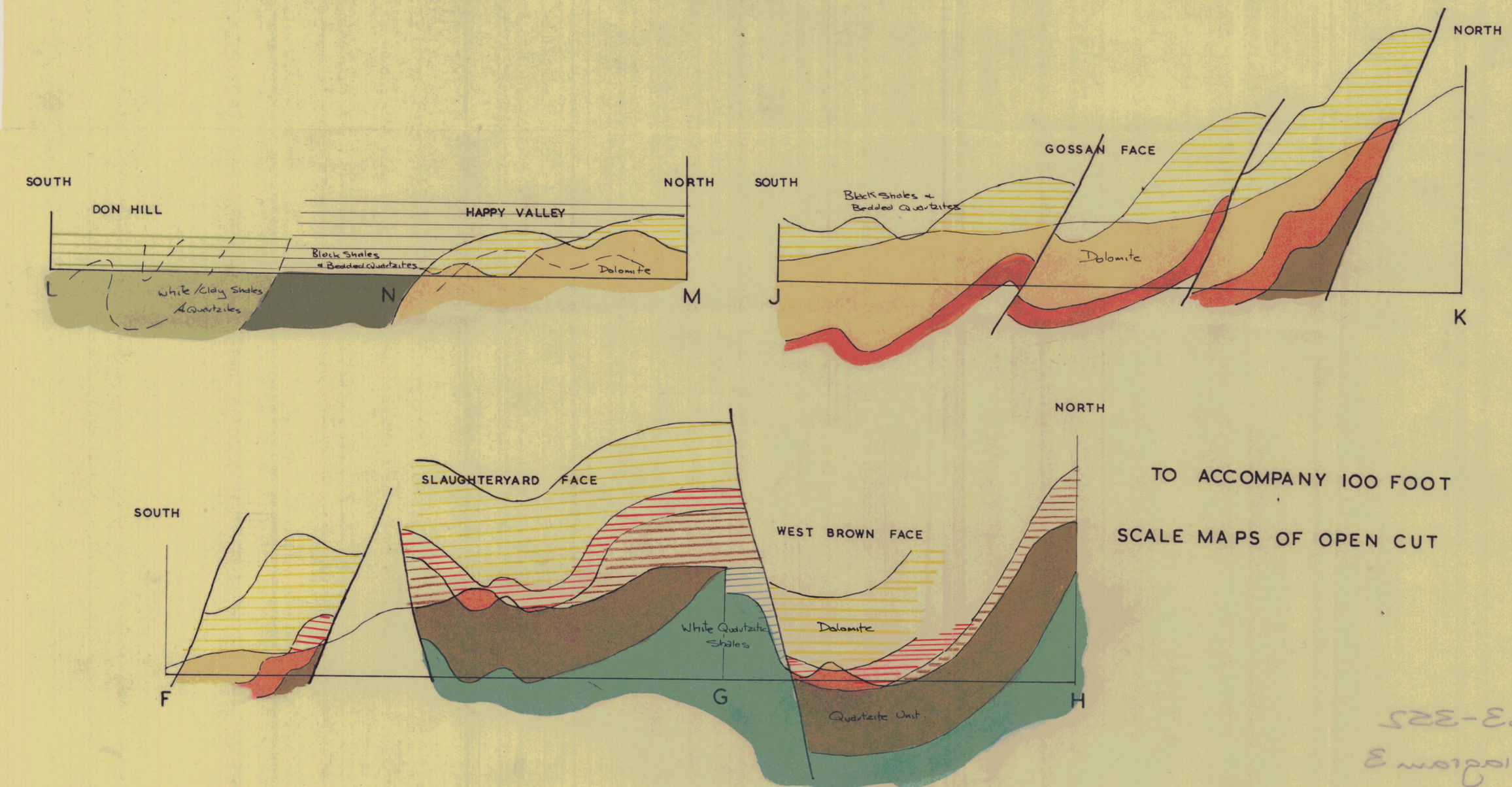
Tim Hopwood.

- WHITE CLAY SHALES & THINLY BEDDED QUARTZITES
- WHITE QUARTZITIC SHALES
- BLACK SHALES & THINLY BEDDED QUARTZITES
- QUARTZ PORPHYRY DYKES
- DOLOMITE & MINERALISED MATERIAL
- BASIC DYKE ROCKS
- MASSIVE QUARTZITE
- FAULT
- GEOLOGICAL CONTACT

63-352
Diagram 1

6733


INTERPRETIVE MAP OF THE
STRUCTURE & STRATIGRAPHY OF MT. BISCHOFF
TASMANIA.
SCALE 200 FEET EQUALS 1 INCH
5 cm
DIAGRAM 2
Tim Hopwood
SECTION CDDE
SECTION AB
SECTION FGH
SECTION PQ
SECTION JK
STRATIGRAPHY
WHITE CLAY SHALES WITH SEDIMENARY STRUCTURES
THICK BEDDED QUARTZITE WITH VERY FINE SHALEY LAYERS
WHITE CLAY SHALES & THINLY BEDDED QUARTZITES
BLACK SHALES & THINLY BEDDED QUARTZITES
DOLOMITE & MINERALIZED MATERIAL
MASSIVE QUARTZITE UNIT
WHITE QUARTZITIC SHALES WITH SEDIMENTARY STRUCTURES
MASSIVE QUARTZITES WITH OCCASIONAL SHALES
BEDDED QUARTZITES & BLACK SHALES
STRUCTURE
GENERALISED DIPS OF BEDDING
SMALL PLUNGING ANTICLINE OR
MAJOR ANTICLINE — PLUNGING
FAULT
286024
6734



TO ACCOMPANY 100 FOOT SCALE MAPS OF OPEN CUT

63-352
Diagram 3

GEOLOGICAL SECTIONS MT. BISCHOFF OPEN CUT

DIAGRAM 3

5 cm

SCALE 100 FEET EQUALS 1 INCH

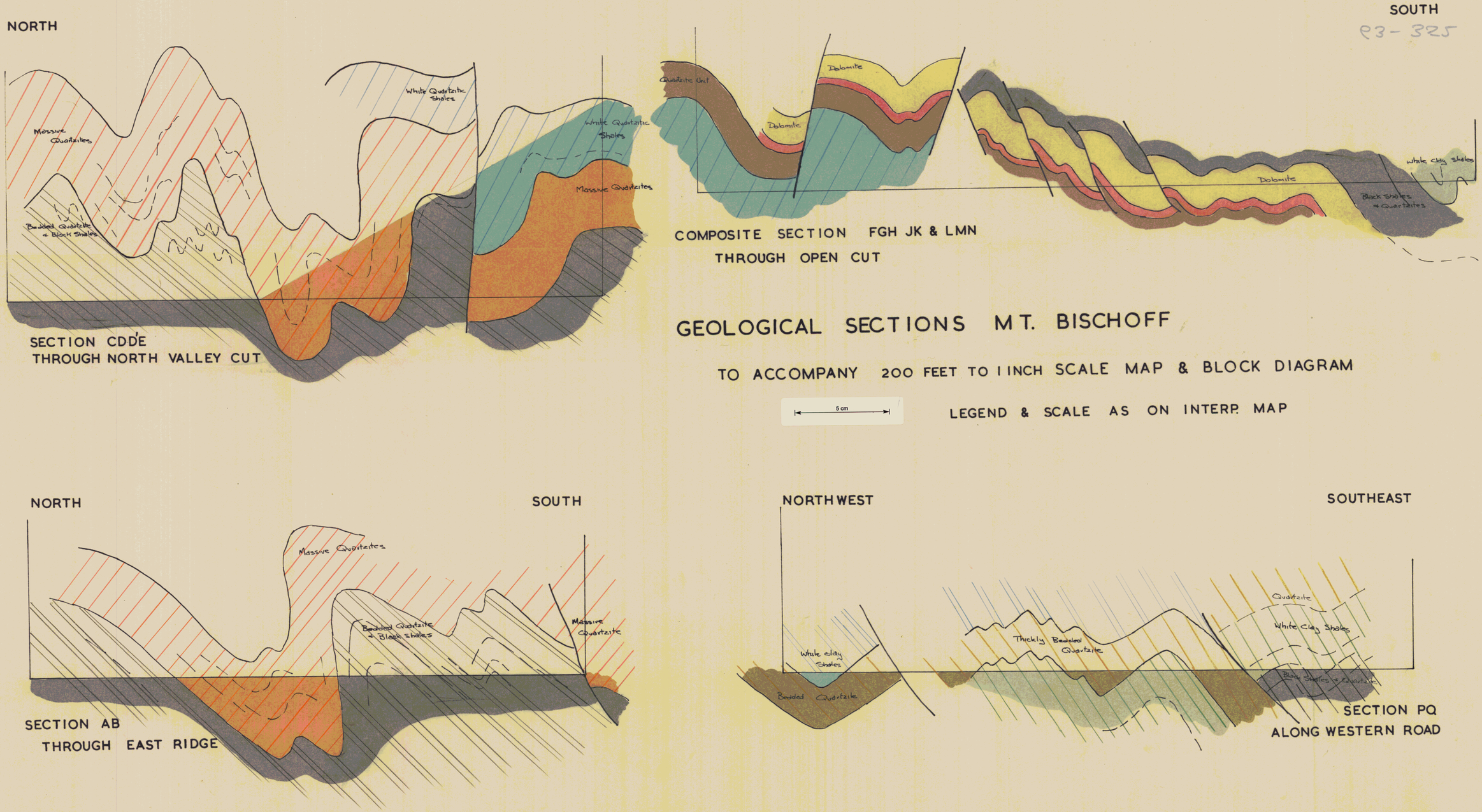
286025

6735

Tim Hopwood.

Diagram 4

93-325



SECTION CDD'E
THROUGH NORTH VALLEY CUT

COMPOSITE SECTION FGH JK & LMN
THROUGH OPEN CUT

GEOLOGICAL SECTIONS MT. BISCHOFF

TO ACCOMPANY 200 FEET TO 1 INCH SCALE MAP & BLOCK DIAGRAM

5 cm

LEGEND & SCALE AS ON INTERP. MAP

SECTION AB
THROUGH EAST RIDGE

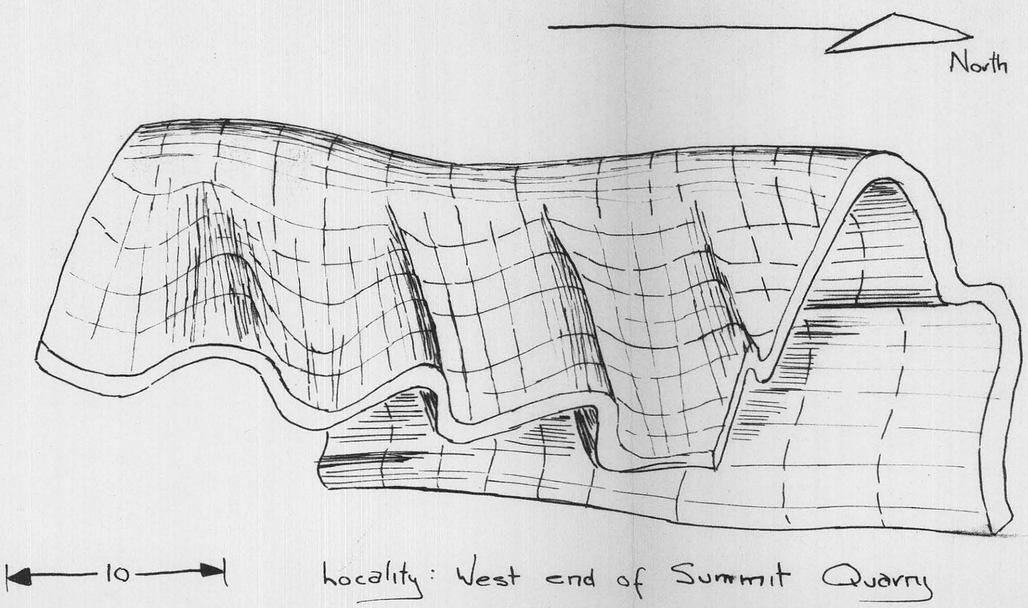
SECTION PQ
ALONG WESTERN ROAD

DIAGRAM 4

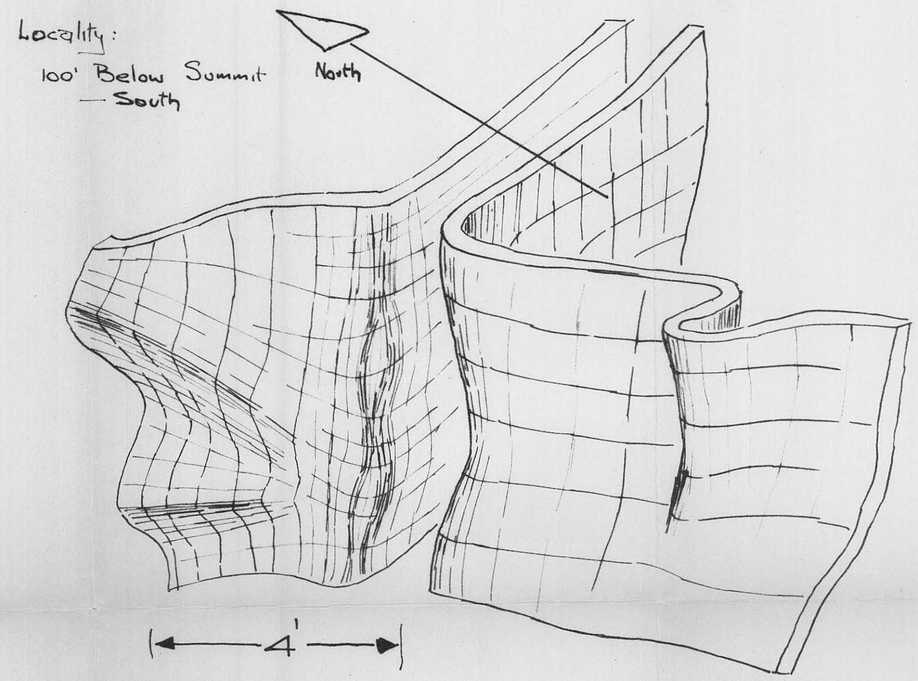
286026

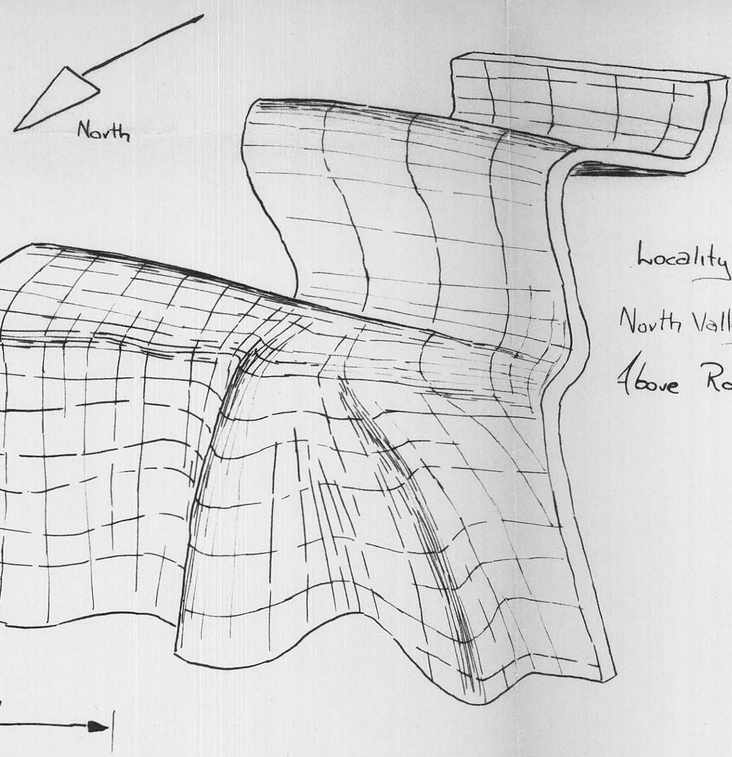
6736

Tim Hopwood.

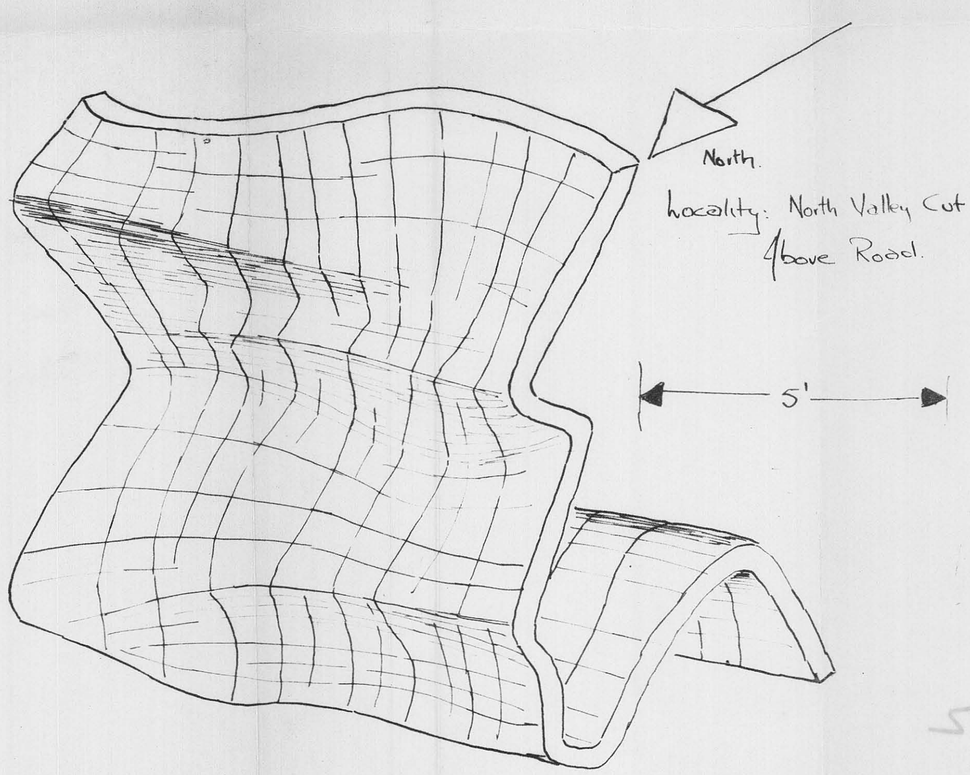


locality: West end of Summit Quarry





Locality:
North Valley Cut
Above Road.



locality: North Valley Cut
Above Road.

286027

STRUCTURE OF MT BISCHOFF ~ FIELD SKETCHES

SHOWING STRUCTURAL STYLE OF DEFORMATION GIVING MODE OF VARIATION OF FOLD AXES & AXIAL PLANES

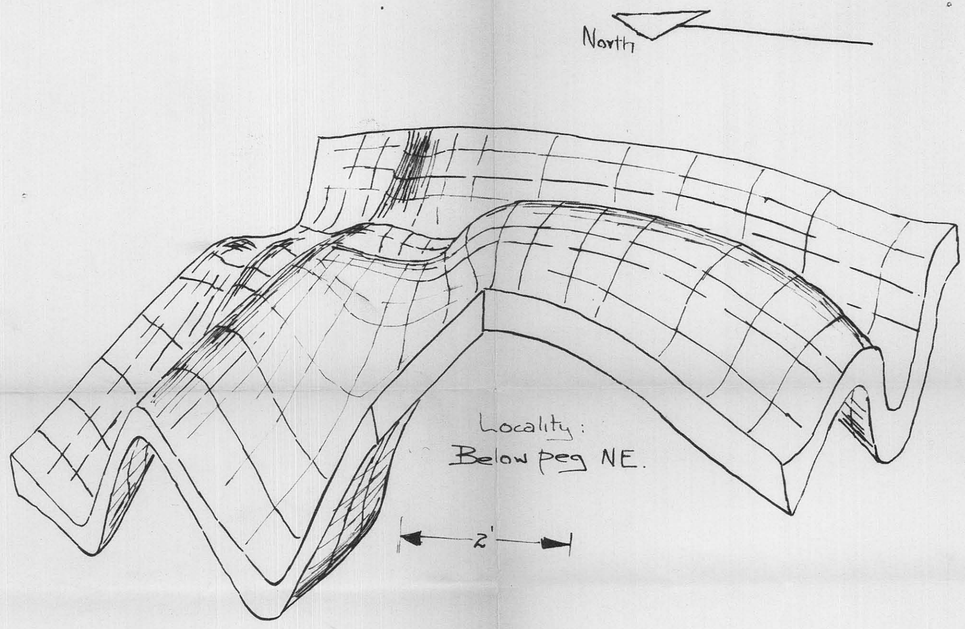
IN SMALL OUTCROPS

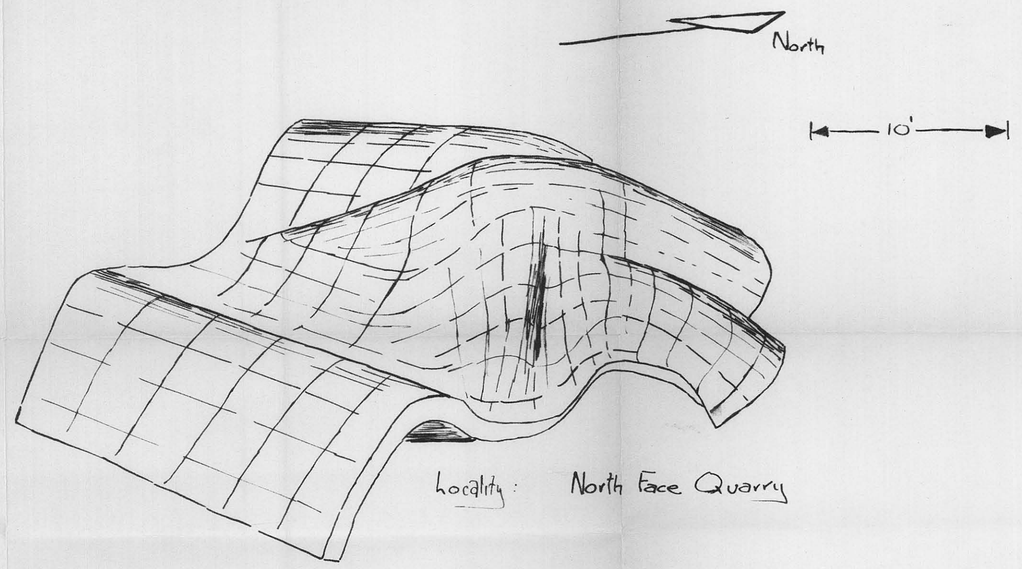
DIAGRAM 5a

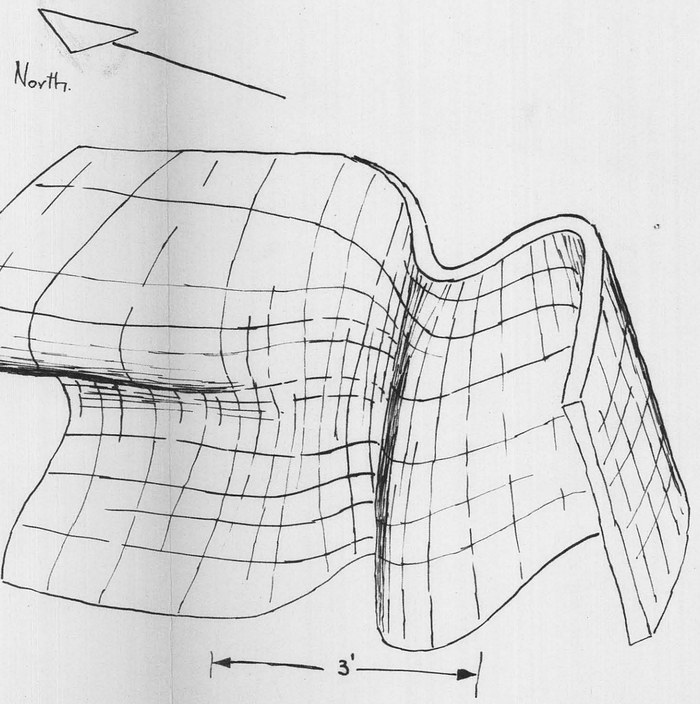
5 cm

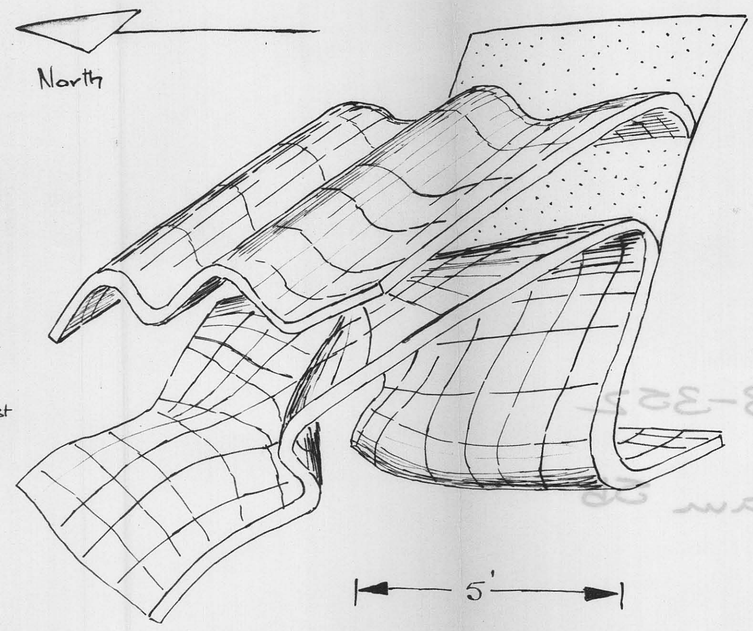
Tim Hopwood.

6737









STRUCTURE OF MT. BISCHOFF ~ FIELD SKETCHES

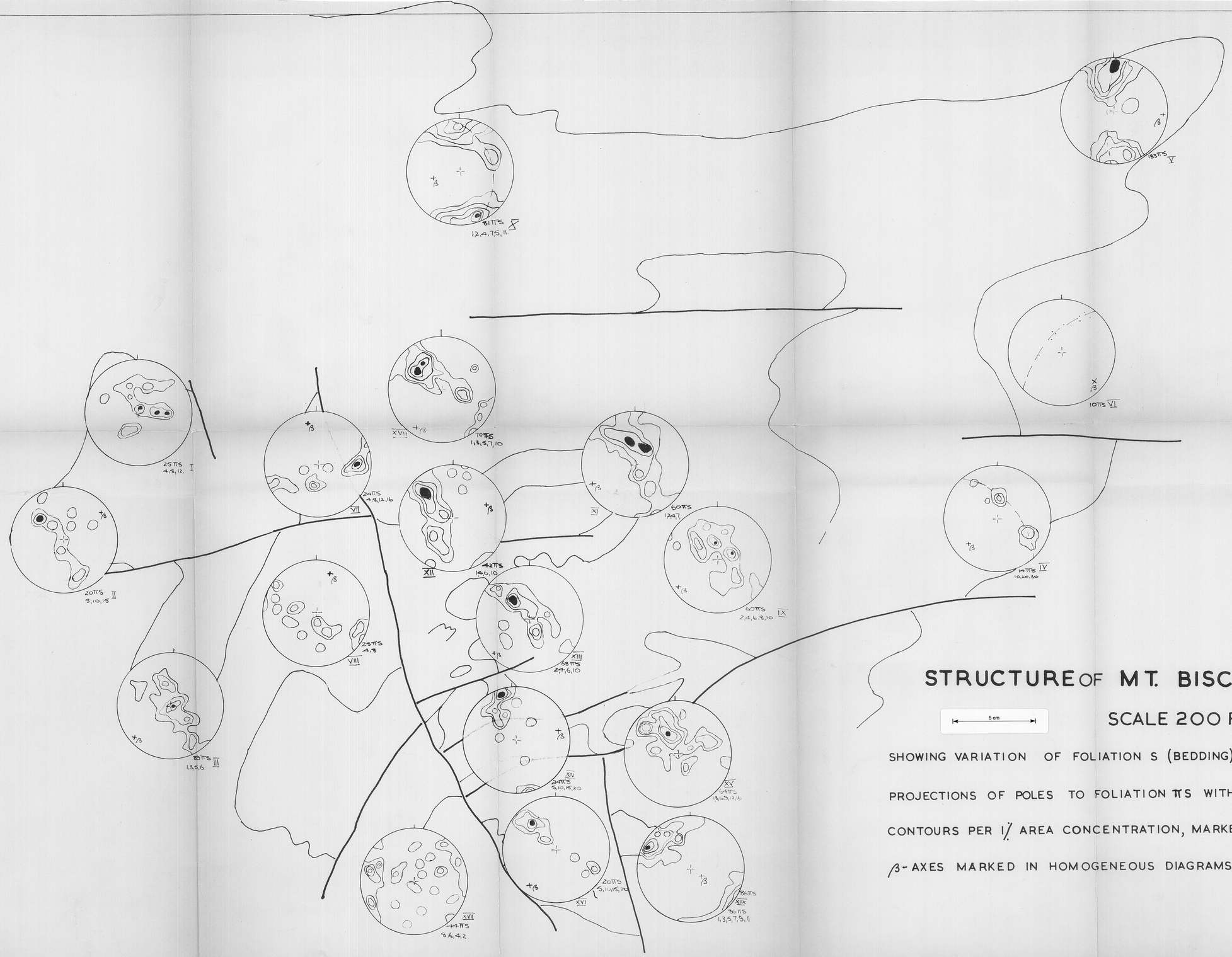
DIAGRAM 5b

5 cm

Tim Hopwood.

286628

6738



STRUCTURE OF MT. BISCHOFF

5 cm

SCALE 200 FEET EQUALS 1 INCH

SHOWING VARIATION OF FOLIATION S (BEDDING). STEREOGRAPHIC PROJECTIONS OF POLES TO FOLIATION πS WITH NUMBER OF POLES, CONTOURS PER 1% AREA CONCENTRATION, MARKED IN EACH SUBAREA.

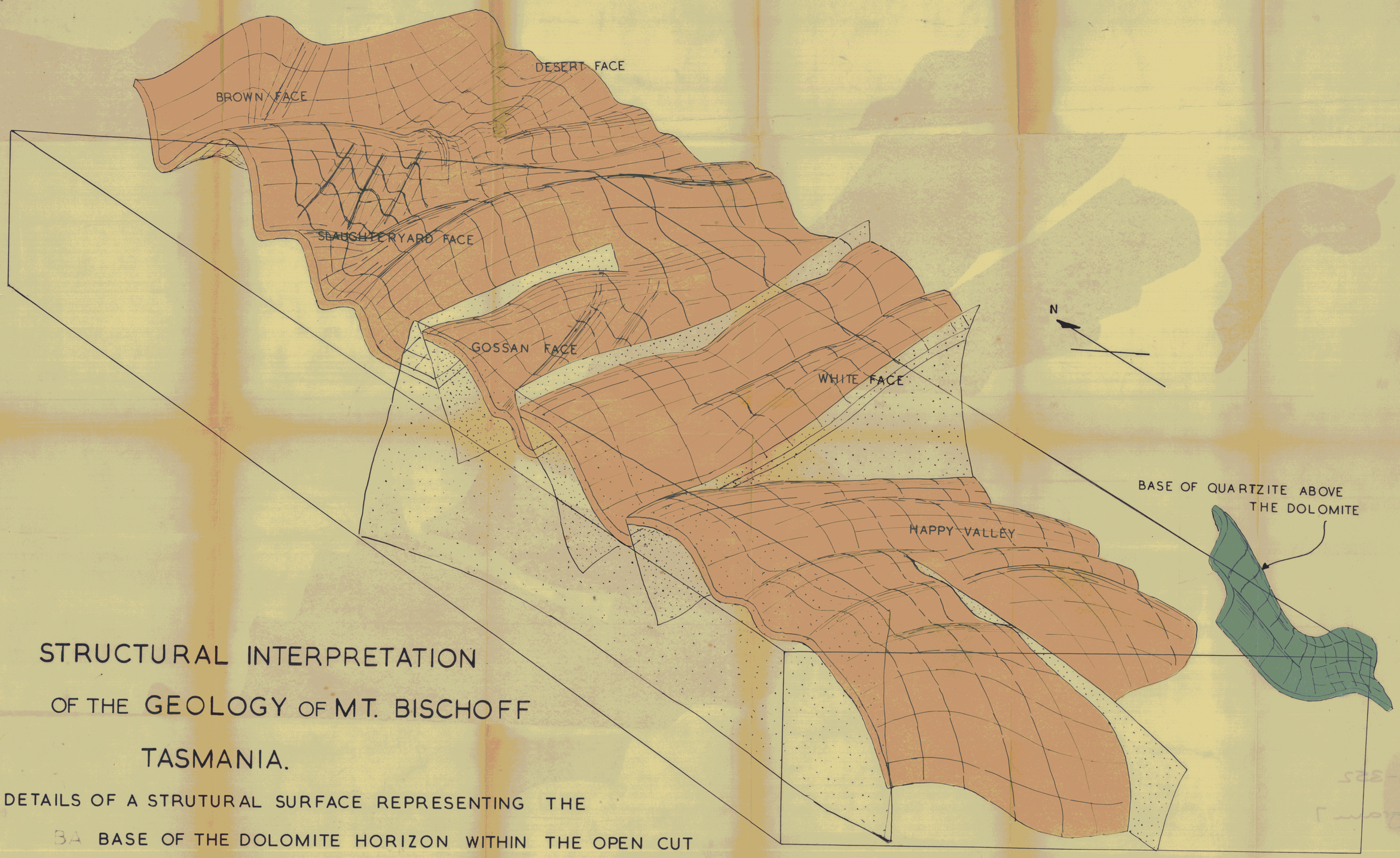
β-AXES MARKED IN HOMOGENEOUS DIAGRAMS.

DIAGRAM 6

Tim Heywood

286629

6739



STRUCTURAL INTERPRETATION OF THE GEOLOGY OF MT. BISCHOFF TASMANIA.

DETAILS OF A STRUTURAL SURFACE REPRESENTING THE BASE OF THE DOLOMITE HORIZON WITHIN THE OPEN CUT

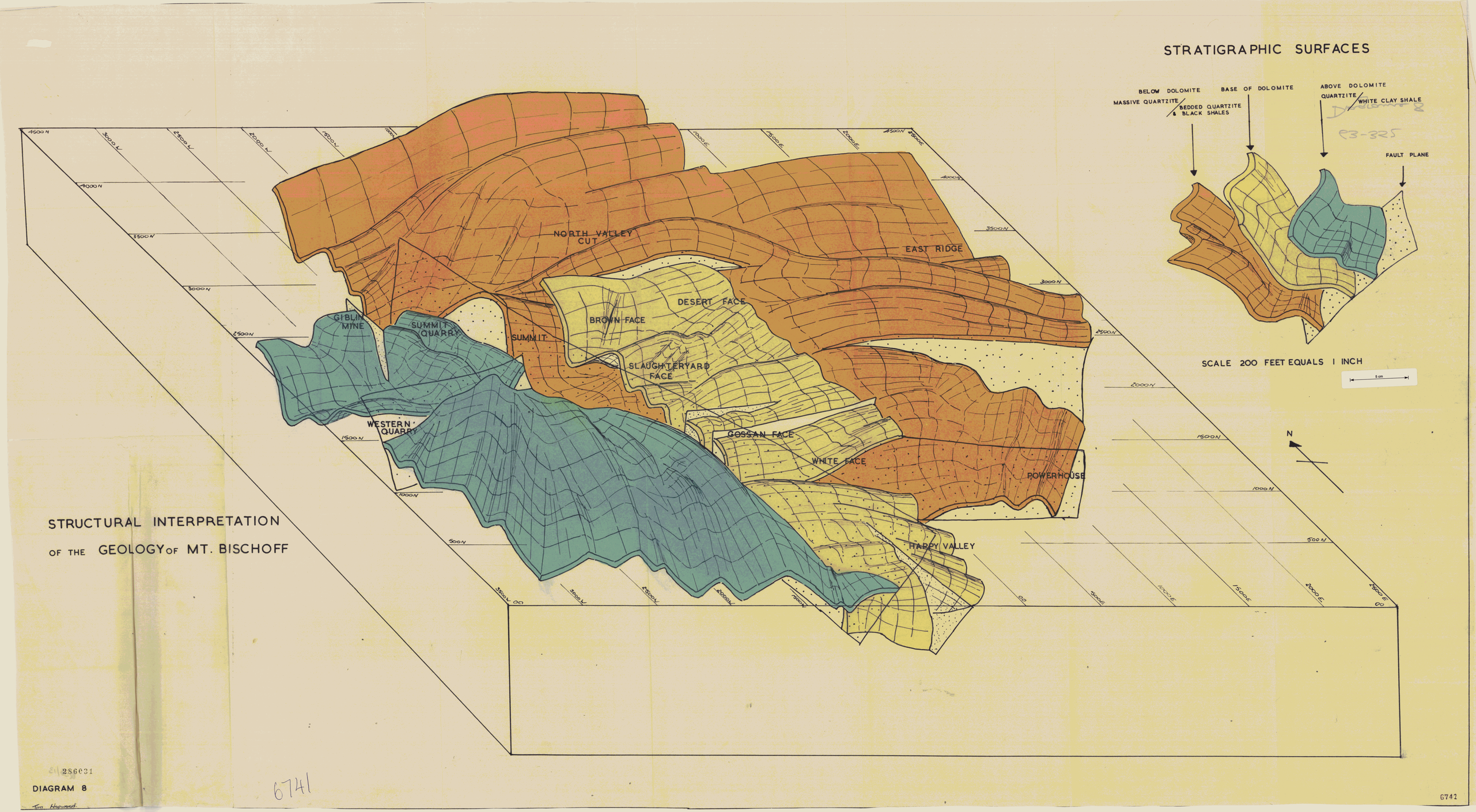
SCALE 1 INCH EQUALS 100 FEET

5 cm

286020

DIAGRAM 7

6740


STRATIGRAPHIC SURFACES
BELOW DOLOMITE
MASSIVE QUARTZITE
BEDDED QUARTZITE & BLACK SHALES
BASE OF DOLOMITE
ABOVE DOLOMITE
QUARTZITE
WHITE CLAY SHALE
FAULT PLANE
SCALE 200 FEET EQUALS 1 INCH
NORTH VALLEY CUT
EAST RIDGE
DESERT FACE
BROWN FACE
GIBLIN MINE
SUMMIT QUARRY
SUMMIT
SLAUGHTERYARD FACE
WESTERN QUARRY
GOSSAN FACE
WHITE FACE
POWERHOUSE
HAPPY VALLEY
N
STRUCTURAL INTERPRETATION
OF THE GEOLOGY OF MT. BISCHOFF
DIAGRAM 8
6741
6742

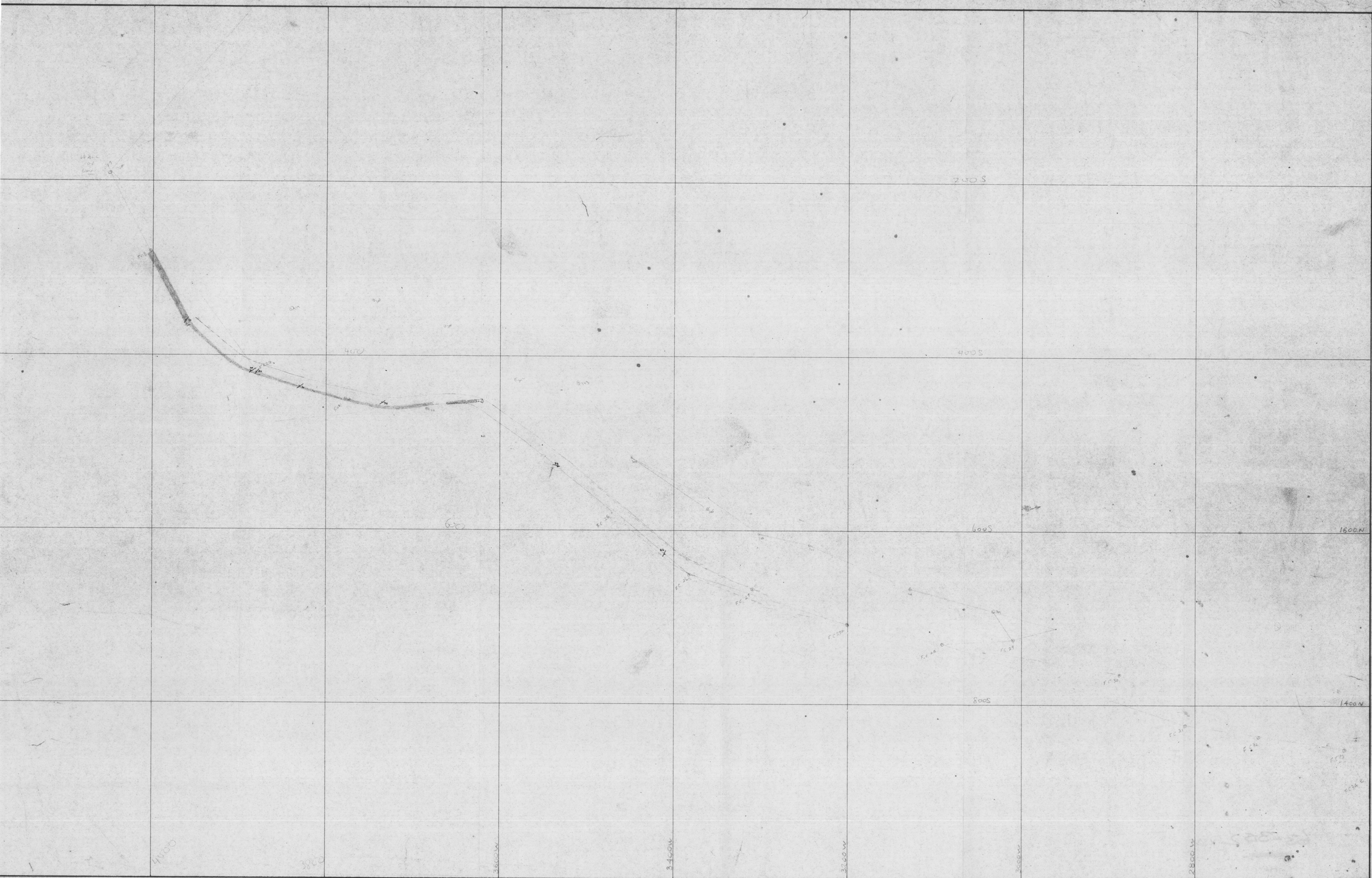
286032

VOLUME 3

APPENDIX B

ABERFOYLE – MT BISCHOFF PLANS

Plans 1 to 9



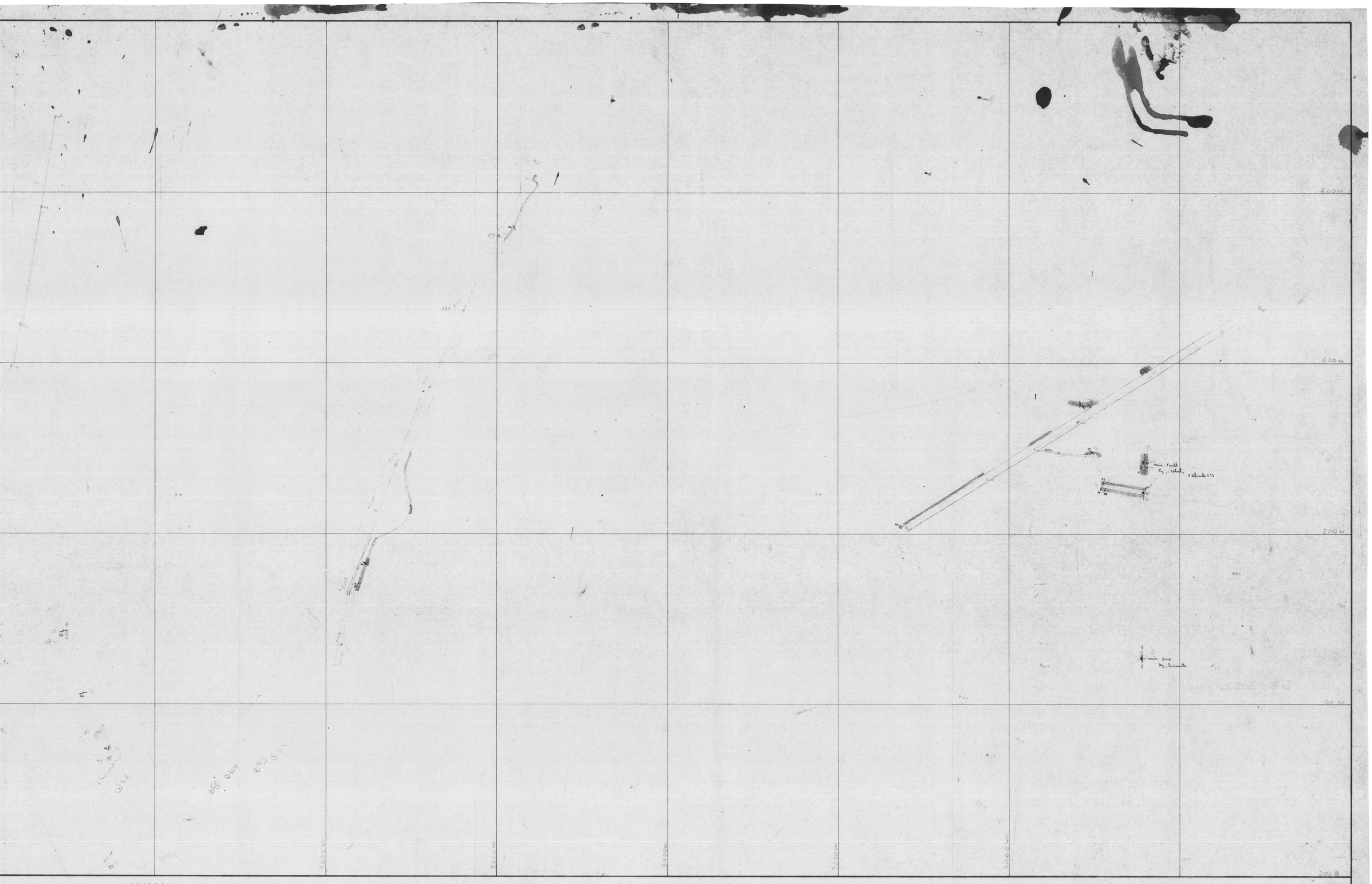
286033

1" = 40'

5 cm

Plan 1

6742



286034

1" = 40'

5 cm

Plan 2

6743

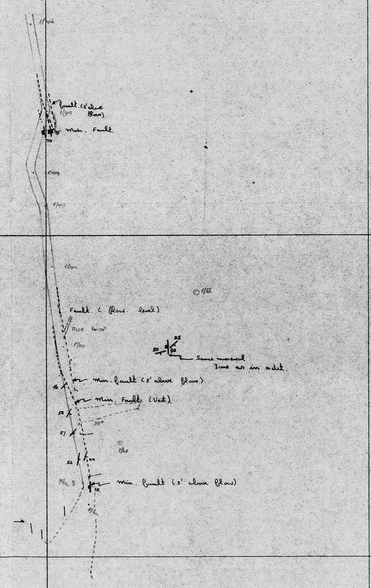
286035

1" = 100'

5 cm

Plan 3

6744



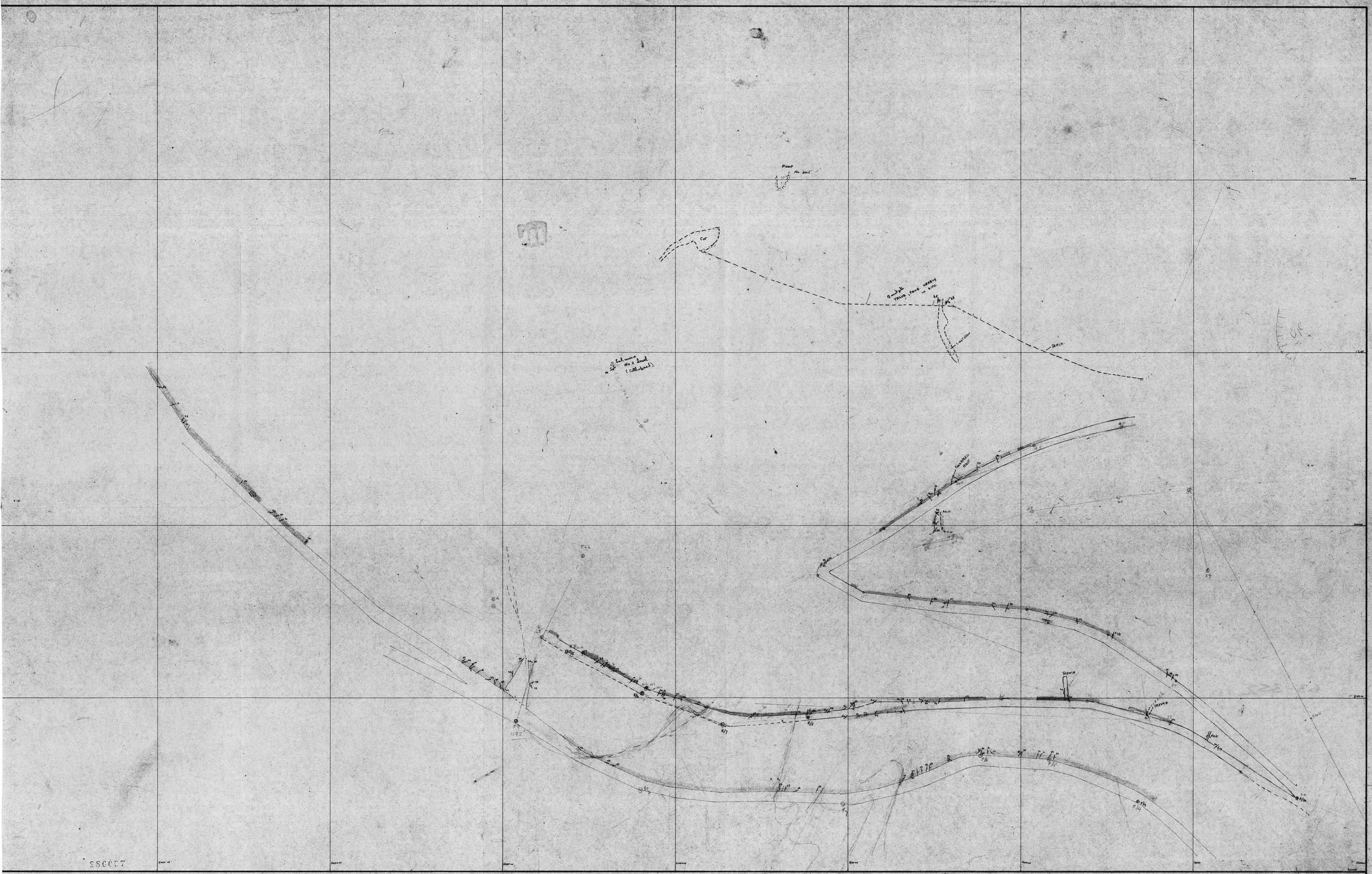
286036

1" = 40'

5 cm

Plan 4

6745

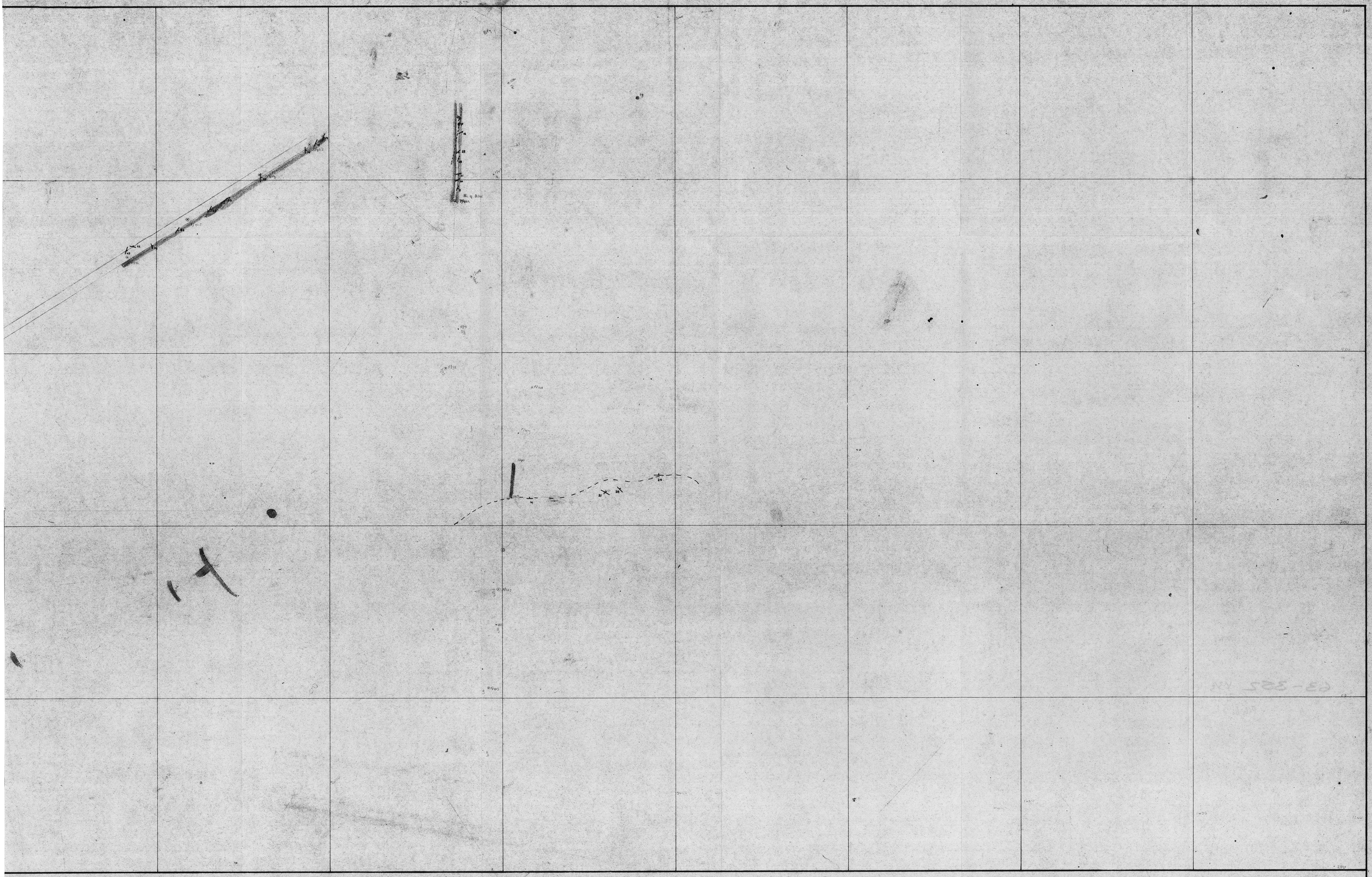


1" = 40'

5 cm

Plan 5

6746



280038

1" = 40'

5 cm

Plan 6

6747

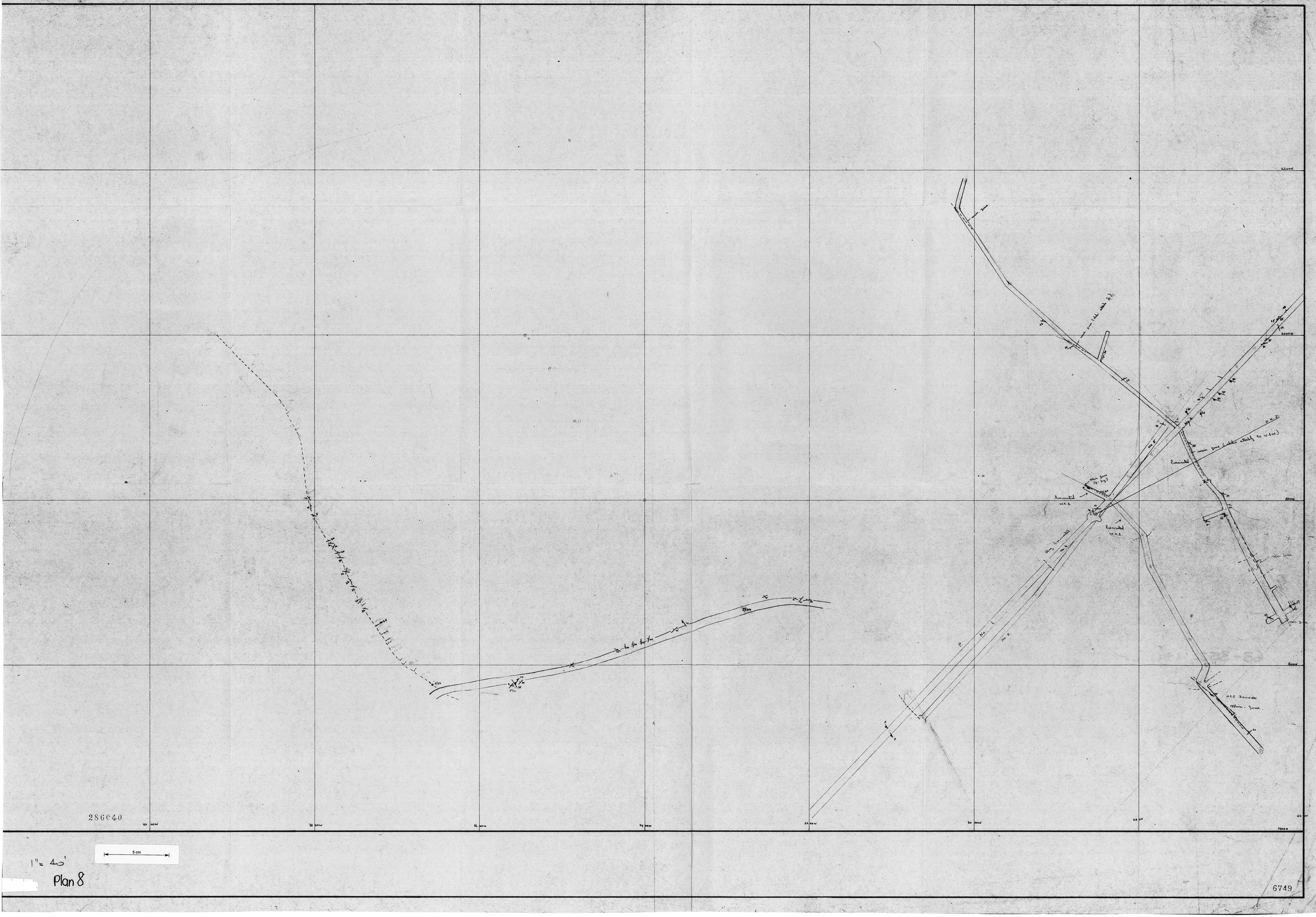
286639

1" = 40'

5 cm

Plan 7

6748


3300N
3200N
3100N
3000N
2900N
2800N
2700N
2600N
2500N
2400N
2300N
3200W
3100W
3000W
2900W
2800W
2700W
2600W
2500W
2400W
2300W
3000N
2900N
2800N
2700N
2600N
2500N
2400N
2300N
3200W
3100W
3000W
2900W
2800W
2700W
2600W
2500W
2400W
2300W
No. 1
No. 2
No. 3
No. 4
No. 5
No. 6
No. 7
No. 8
No. 9
No. 10
No. 11
No. 12
No. 13
No. 14
No. 15
No. 16
No. 17
No. 18
No. 19
No. 20
No.

1500W

1000N

500N

NO STN

4000W

3500W

3000W

2500W

2000W

1500W

1000W

500W

286611

1" = 100'

5 cm

SURVEY TRAVERSE H2 (KNIGHT) B/ST 5 330°40'-10" Calc. to STN 28 in approach to No 6 LEVEL WEST FISCHOFF

Plan 9

6750