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ANNUAL REPORT FOR THE ARGENT SECTION OF

EL 42/71, 1982/83

AMG REFERENCE POINTS ADDED

D. J. Kilpatrick.
December, 1983.

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PLANS

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- c) DUNKLEY FAULT GRID - AEROMAGNETICS MODELLING
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1. SUMMARY

A single drillhole testing the northern extension of the Federal fault, just north of the Owen Meredith workings intersected a weakly mineralised fault and an unmineralised Renison Mine Sequence on the footwall side. Another hole is planned further north however it appears that the best potential in this area for significant mineralisation is at depth nearer the granite, i.e. >900 metres down-dip.

Work commenced on the Dunkley Fault Grid. Gridding, magnetics and bedrock sampling were completed over the 35km of the grid. The magnetics survey defined three main areas of interest in the vicinity of the previously reported aeromagnetic anomaly. The bedrock geochemistry located two possible areas of fault bound mineralisation and revealed an apparent Cleveland style base metal zonation around the main magnetic anomaly. Work recommended includes infill line cutting, magnetics and bedrock sampling. A V.L.F.-E.M. and a deep seeking ground E.M. survey are also proposed.

Proposals for future drillholes in the Tunnel Ridge Sector are discussed in light of encouraging weakly mineralised Renison Mine Sequence intersections on the adjacent western edge of the Renison Mining Lease.

| | | |
|-------------|---------|-----------|
| Expenditure | 1982/83 | \$111,459 |
| Budget | 1983/84 | \$ 94,108 |

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2. INTRODUCTION

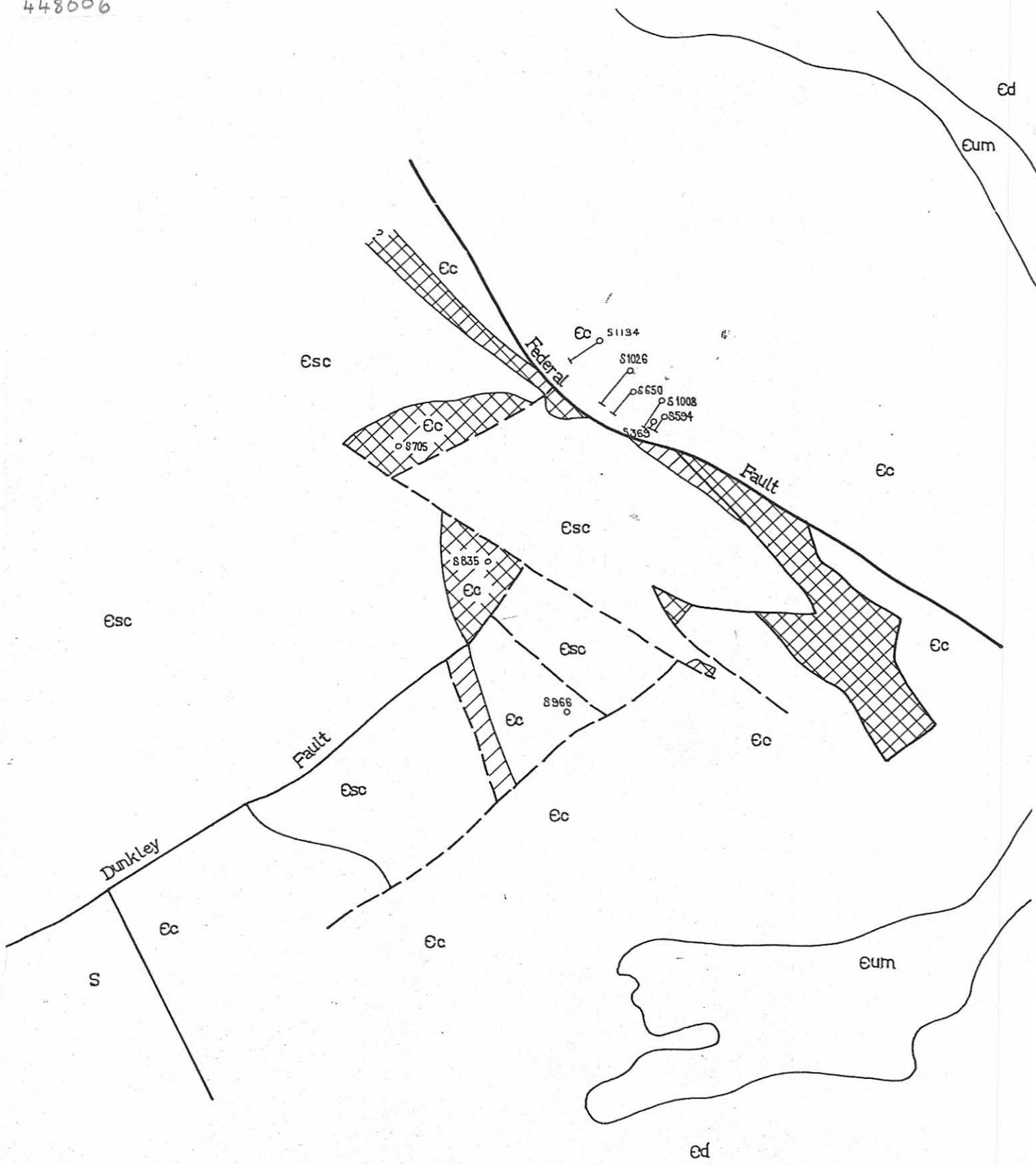
EL42/71 covers an area south and west of the Renison Mining Lease. The southern portion which includes the Grand Prize Mining Leases has been reported by Komyshan, (Annual Report EL42/71 - Grand Prize Area, Komyshan, 1983) and will be excluded from this report. The western portion is referred to generally as the Argent Area.

Because of its favourable geology, abundance of faulting and the proximity of the Renison and Razorback tin mines, the license is considered to have good potential for hydrothermal stanniferous deposits as well as fault infill and skarn style mineralisation.

Changes to guidelines governing exploration licenses came into effect on July 1st, 1982. The previous report discussed these changes and proposed an exploration approach designed to complete evaluation in the allotted time (January 1988). This report covers work since November 1982 and includes proposals to June 1985.

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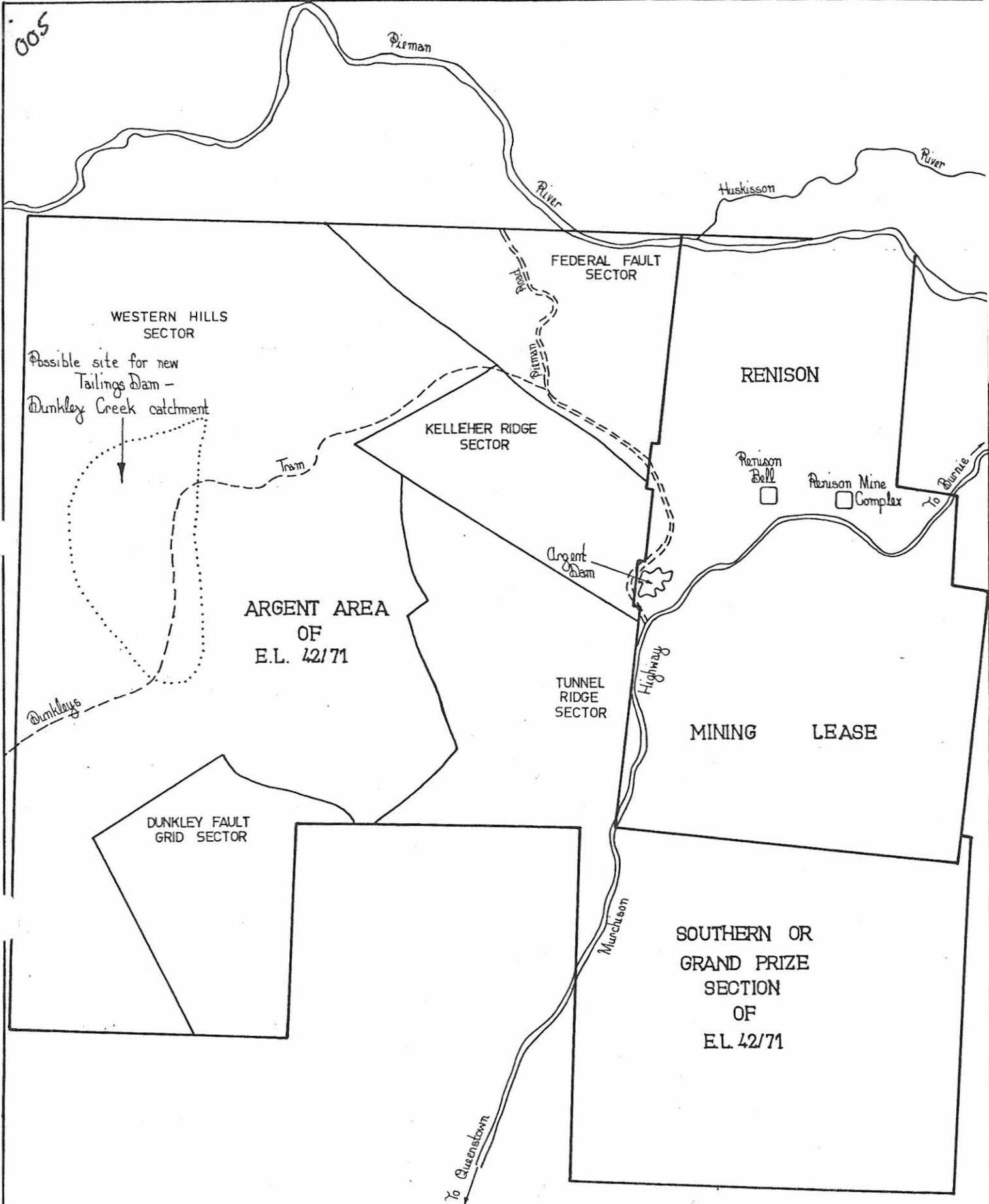


- S Siluro-Devonian sediments (Eldon Group)
- Ed Dundas Group
- Ec Crimson Creek Formation
- Esc Success Creek Formation
- Eum Serpentine Hill Ultramafics
-  Mine Sequence Rocks
-  Possible Mine Sequence Rocks
-  Diamond Drill Hole Locality
-  Fault Inferred
-  Fault Definite
-  Geological Boundary

AND GEOLOGY

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E.L. 42/71 AND R.M.L.

LOCALITY

PLAN

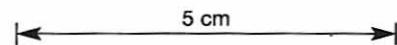


FIG. a)

RENISON LIMITED3. PREVIOUS WORK

Several companies have completed a variety of exploration programs in this area over the years. A major effort by Renison in recent years has succeeded in co-ordinating most of this data into a usable format.

Since 1970, six traverse line systems have been established by various companies, and on these a wide variety of programs have been completed, viz.:

- (a) E.Z. Grid, south of the Argent Dam, where magnetic, limited electrical geophysical and geochemical programs, and two diamond drill holes were completed.
- (b) Wilson River Grid, north of the Argent Dam, where Paringa completed a variety of geochemical and geophysical surveys.
- (c) Crimson Creek Grid, where Comstaff carried out geochemical and geophysical surveys prior to drilling three diamond drill holes. In more recent years, Renison have completed 8 diamond drill holes in this area.
- (d) Dunkley Grid, where Renison completed a reconnaissance stream sediment sampling program, magnetic surveys and geological mapping.
- (e) Argent Grid, where Renison has undertaken geophysical, geochemical and mapping surveys, and drilled two diamond drill holes.
- (f) Dunkley Tram Grid, where Renison has recently completed LP., magnetic and soil geochemical surveys, and one diamond drill hole.

A compilation by J. Bishop (Consultant Geophysicist) of all relevant geophysical data carried out over EL42/71 and the Renison Mine Lease will be completed in December 1983. This will detail the wide variety of airborne and surface geophysical techniques which have been tested over the immediate and wider mine area. A separate interpretation report is due for completion in May 1984.

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4. GEOLOGY

The Argent area of EL42/71 contains rocks of the basal Precambrian Oonah quartzites and slates, Lower Cambrian Success Creek Group (S.C.G.) and the conformably overlying Crimson Creek Formation (C.C.F.). The Renison Mine Sequence (M.S.) is located stratigraphically within the base of the C.C.F. and the top of the S.C.G. The C.C.F. and upper part of the S.C.G. are known to host carbonate horizons beside the M.S. carbonates. The area exhibits moderate regional and local folding and is dissected by several major faults. Three of these are known to be mineralised to at least a minor extent including the northern extension of the Federal Fault in the area of the Owen Meredith - Bon Accord line of workings.

The geology of the Argent area is shown on plan 2 at 1:10000 and is described in more detail in previous annual reports and papers to which the reader is referred. The geological setting of the various 'sectors' within the report area is described in section 6 of the previous annual report and is summarised in Figure a.

RENISON LIMITED5. DISCUSSION OF WORK COMPLETED

5.1 FEDERAL FAULT SECTOR

One diamond drillhole, S1134, was drilled in the Federal Fault Sector in August 1983 as proposed in the 1981/82 Annual Report (p.13). The hole was designed to test for mineralisation within the Federal Fault and footwall Mine Sequence. Collared on the eastern hanging wall side, the hole penetrated 384.8m of C.C.F. siltstones, graywackes, tuffs and shales before intersecting the Federal Fault. The fault at this position is 1.4m (e.t.t.) and is calcareous and graphitic, sheared and brecciated with abundant pyrite as disseminations near the middle of the unit. The intersection assayed <0.01% Sn, 0.02% Cu, 0.16% Pb, 0.07% Zn, <0.01% WO₃, 7 g/t Ag; Base of intersection R.L.1806.

The hole continued through a further 131.1m of C.C.F. siltstones and dolomites and ?trachyte before reaching the series of dolomites, cherts and shales confidently interpreted as the Renison Mine Sequence (R.M.S.). The R.M.S. consists of 7.7m No. 1 dolomite, a very thick Red Rock Member 157.0m, which includes a 15m No. 2 dolomite at the base, a 20m R.B.M. and a split No. 3 dolomite divided by 11.1m of Upper Dalcoath Member carbonaceous siltstone. None of the dolomites were mineralised (see Plan 3). The log of S1134 is appended.

The absence of mineralisation within the R.M.S. carbonates should not be seen as discouraging. At the point of intersection the dolomite units were laterally 100-200m from the mineralised Federal structure. Potential remains for carbonate replacement adjacent to the fault at depth or further north, where the R.M.S. is in contact with the Fault.

The sequence intersected was considerably different from that anticipated and this has necessitated a reappraisal of both the interpreted surface geology and the Federal longitudinal interpreted geology - see Plans 4 and 5.

A fault was projected from mapping and DDH S705 further west to intersect the Federal Fault 220m north of the Owen Meredith workings. It appears that if this fault reaches the Federal structure it must dip steeply to the south rather than to the north as it does near S705. The contradiction between the footwall geology of S1134 and holes S697 and S376 requires a major strike and/or dip change between the two positions. This could be achieved by strong folding - such is visible on air photographs and has been mapped in the area. The axial plane of such a fold must in any case have a similar orientation to the fault and the absence of firm evidence requires that the former interpretation stand.

The zone of intersection if it exists, of the Federal Fault and the Mine Sequence, the prime target of this drilling, must be at some considerable depth below the R.L. of the S1134 intersection point.

The three holes proposed in the previous report were based on i) the theory that the granite was shallower beneath the Owen Meredith-Bon Accord line of workings than further south (see section 6.1 Annual Report 1981/82), and ii) that the M.S. was in contact or closely adjacent to the Federal Fault. Plan 3 shows that ii) does not hold in the vicinity of S1134. Earlier mapping shows the M.S. and Federal

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diverging to the north and hence if the M.S. and Federal are in contact at depth beneath S1134, the contact zone must plunge to the north unless the dip shallows dramatically toward the Pieman River. Based on S1134 then, further drillholes designed to reach this contact zone should be in excess of 1100m in length. However drilling of the deep levels of the Federal is a long term project and commenced in the immediate mine area with such holes as S700 and S398. Further holes are planned working progressively northward, but are very much subject to financial considerations. In view of the depth of mineralisation, the expense involved in intersecting it, the obvious link with the mineralisation in the Renison mine and the long term nature of any deep level drilling exploration program, serious consideration is now being given to various options regarding land tenure.

5.2 TUNNEL RIDGE SECTOR

In the 1981/82 Annual Report, this sector was rated second only to the Federal Fault Sector in prospectivity due to the presence of outcropping mine sequence rocks, C.C.F. rocks and a number of large faults. Because of the close geological and structural as well as spatial relationship to the southern part of the Renison Mine Lease, this sector was considered an extension of that area. It was decided at that time to co-ordinate future work in the sector with the current pattern drilling program on the S.R.M.L.

Two holes have been drilled on the west side of the S.R.M.L. (see Plan 2) and have intersected recognisable Mine Sequence rocks, the carbonates of which are weakly mineralised and, in the more southerly hole, partly recrystallised. (See Interim report - South Renison Mining Lease Exploration - memorandum Chief Mine Geologist to General Manager - 14th November 1983).

The M.S. intersections enhance the prospectivity of the Tunnel Ridge Sector considerably. From these intersections it is anticipated that the M.S. would be 600-800m below surface in the Tunnel Ridge Sector.

5.3 DUNKLEY FAULT GRID SECTOR

The Dunkley Fault Grid was proposed in the previous report in order to effectively evaluate the area covered by C.C.F. rocks and the bounding faults in the south west corner of the license. The grid was designed to cover the strong aeromagnetic anomaly. This had been previously interpreted as due to a basic intrusive, however no drilling was carried out to test this theory. The strength of the anomaly and the absence of such a response over the Cuni area must throw some doubt on this idea.

Renison Limited had 5 lines (15 kms) cut over the grid area between September 1973 and February 1974. This was called the Dunkley Grid. The 3 lines nearest the anomaly were surveyed with proton precession ground magnetics however follow-up work was suspended due apparently to a personnel shortage.

Further work was deemed necessary to allow a more complete evaluation of the magnetic anomaly and also to explore the C.C.F. area generally; in particular the faulted contacts and the possible conformable C.C.F./D.M. contact in the north-east corner of the grid area.

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5.3.1 Access:

A bulldozer fire access track was upgraded to allow 4WD passage between the old N.E. Dundas Tramway (4WD access) and the abandoned Dunkley Tramway. The latter was also upgraded to allow access between the Pieman logging road and the grid area although this latter deteriorated to an unusable state. (See section 5.5. i)). A further 4km of 4WD track was constructed along the southern side of Arbuckle Ridge to permit access to the northern and eastern sections of the grid. This track was extended to connect with earlier fire access tracks which branch off the northern end of the Cuni field. The eastern section of this track was undriveable during the winter months. Most of the tracks were located by Renison Limited Survey Department.

Grid-line cutting was contracted to N. Poltock and commenced on 14th March 1983. The grid, a total of 34.6km including baseline and crosslines, was completed before the end of June. Gridlines were cut on a bearing N50`E magnetic. This is approximately 90 degrees to the original Dunkley Grid. The orientation was changed to allow a better coverage of the NNW trending magnetic anomaly and the ?conformable C.C.F./D.M. contact. Lines were cut at 200m intervals and pegged at 25m and numbered north to south 000S, 200S, 400S - 2200S, 2400S, 2600S. All gridlines which cross the access tracks were located by the Survey Department.

5.3.2 Geology:

Mapping along the gridlines revealed negligible fresh outcrop within the grid proper. All occurrences are in or near creeks. The surrounding ridges host good to slightly weathered outcrop. Work completed has generally confirmed earlier regional mapping. The low-lying valley composed of C.C.F. rocks faulted against the upthrown Success Creek sediments to the north and the downthrown Silurian sediments to the west.

Precambrian Oonah and Lower Cambrian Success Creek Group sediments; the Oonah quartzites and slates are seen to crop out north of the Dunkley Fault and ?Success Creek (S.C.) on Cheesewood Spur. On the Boodecker Ridge track where it crosses the Arbuckle Ridge (C1027)* rocks include creamy or greenish-creamy fine schistose micaceous siltstone, interbedded fine siltstone, mudstone and fine sandstone and coarse, gritty sandstone. Black carbonaceous shales often contain trace pyrite. All show strong foliation and disrupted bedding, some warping and slight folding is evident in this area. Occasional sheared zones contain abundant graphite and sparse pyrite. The rock types are suggestive of upper Oonah Formation or S.C.G. since there is little of the "saccharoidal quartzitic sandstone or quartzite" typical of the bulk of the Oonah (Blissett, p.23).

Outcrop on Cheesewood Spur includes clean, sandy, brownish-cream quartzite, well sorted subrounded grains, occasional weakly foliated micaceous siltstone interbeds (C1003), black carbonaceous shale, occasionally fractured and foliated with some quartzose fragments (C1004) and dark grey quartzose, micaceous hornfelsed rock (C1016). Trace pyrite is sometimes associated with the black shales.

* All such figures refer to samples and localities and are listed in Appendix 6.

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Crimson Creek Formation sediments; C.C.F. rocks occur within the lowlying flats surrounded to the north, west and N.E. by ridges. Outcrop is rare as the flats are mostly covered by 2 to 4 metres of clayey silt over very weathered, clayey rock. The weathered rock is visible on the low ridges formed by the many small meandering streams. Rare fresh outcrop is found in the larger creeks. Rock types consist of dark grey shales (occasionally pyritic and graphitic C1020), light grey tuffaceous greywacke (occasionally pyritic, sometimes indurated), tuffaceous siltstone, and green and crimson siltstones and interbedded fine greywackes (?tuffaceous - C1025a). Some possible hornfelsing is evident in the N.E. section of the grid (e.g. C1022). Weathered outcrop and subcrop often retain relic textures suggestive of tuffaceous origin. An interesting feature is a number of occurrences of a vughy ferruginous gossanous-looking rock (e.g. C1001, C1008, C1014, C1030, C1038B). These occur as plate-like apparently surficial encrustations, 10-40m wide - depth extent is unknown. Further work is required to determine the exact nature and significance of these formations.

Silurian Eldon Group; the Silurian is represented by the quartzose sandstones of Boodecker Ridge. The rocks are mostly clean, sugary quartz sandstones and shaley sandstone generally well sorted but sometimes with minor leached ?feldspar or calcareous component. Occasional agglomeratic bands and some ?fossiliferous horizons are present. Some bands show large scale (approximately 0.5m) crossbedding. This unit has been mapped as the Crotty Quartzite and is described by Blissett, (p. 67.)

Faulting; two major faults, the Dunkley and the Boodecker Faults were recognised several years ago. The Dunkley Fault, a N.E. trending structure, extends for at least 7 kms and, in the grid area, divides the Precambrian Oonah Formation from the Lower Cambrian C.C.F. to the south. The Boodecker Fault trends N.W. and may be associated with or possibly an extension of the Ewart Fault to the South. Neither fault is known to be mineralised although significant values have been obtained from sampling along both faults (see section 5.3.4). The Boodecker Fault has not been observed in outcrop as it is located in a low, swampy buttongrass plain. Possible exposures of the Dunkley Fault occur at localities C1034 and C1035. After mapping the supposed conformable C.C.F./D.M. contact in the N.E. corner of the grid, it became apparent that the contact is in fact strongly block-faulted (see Plan 6) and no M.S. rocks have yet been observed. Other faulting may be associated with the lineaments observed on aerial photographs (Plan 6). From both the surface exposure and aerial photograph lineaments, it would appear that faulting may contribute to a significant degree to the structure of the area. V.L.F. - E.M. may be a useful technique to define the major fault systems and orientations. A number of fault outcrops including the Dunkley Fault have abundant graphite associated with the shearing. This should enhance the conductivity and hence the E.M. response of the faults.

Structure; all structure measurements recorded are plotted on the geological interpretation, Plan 6. The scant outcrop within the C.C.F. suggests a general trend of bedding 300-330 (Renison Mine Grid Bearing) and a dip of 70 degrees N.E. This is similar to that observed north of Dunkley Fault.

RENISON LIMITED5.3.3 Geophysics:

Regional Aeromagnetics; a regional aeromagnetics survey conducted by the Tasmanian Department of Mines in 1981 included the grid area. The survey redefined a broad circular feature approximately 2km radius extending west from the Cuni area. Near the centre of the regional high there occurs a sharp 200 gamma anomaly.

Modelling by Bishop, consultant geophysicist, of data from one flight line over the anomaly (Figure c.) suggests a depth to the source of the regional feature in excess of 800-1000m, however the source of the peak appears to be 200-400m below surface.

It is considered likely that the broad regional feature is due to hornfelsed sediments capping an underlying granite cupola. Some hornfelsed outcrop has been recorded in the grid area - appendix 6. A similar magnetic aureole effect has been noted at Mt. Lindsay, Cleveland, Renison and Severn (Webster * 1982).

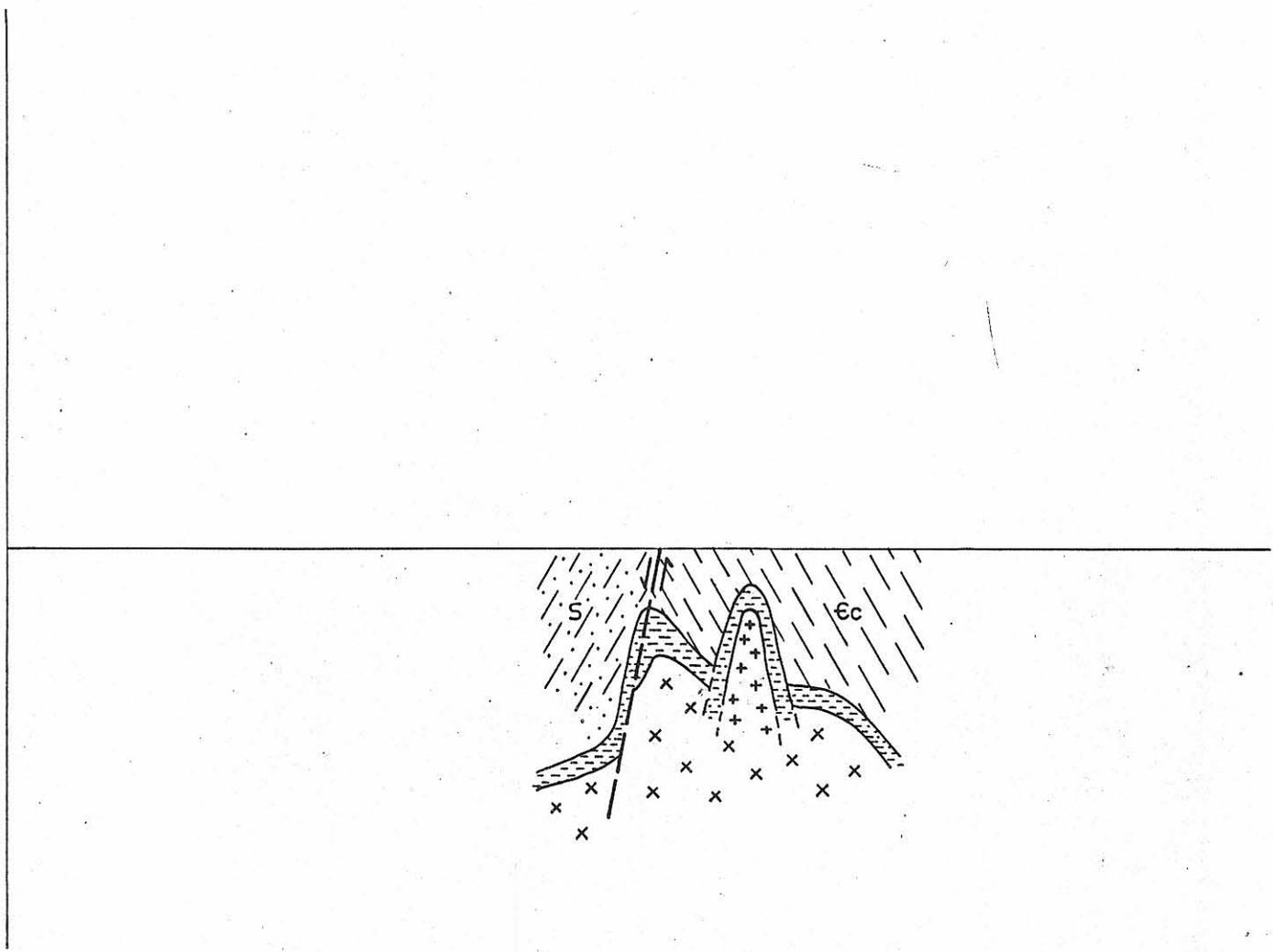
The 200 gamma anomaly within the regional feature is a more intense localised magnetic response and may be due to hornfelsing at an higher level and possibly associated with mineralisation. Webster has suggested that the 80 gamma anomaly superimposed on the more regional response from the granite in the vicinity of the Ardlethan Mine may "represent a late phase intrusion which was related to the source of the brecciation and Sn mineralisation".

The overlay for Figure c. showing the geological interpretation of the modelling shows the theoretical subsurface geology. The granite underlies the 100-200m of hornfelsed capping approximately 1200m below surface. Contemporaneous movement of the Boodecker fault has offset the granite, and enhanced hornfelsing effects near the fault. A later, more highly fractionated granite has been emplaced, creating a second hornfels halo 200 to 400m below surface.

Total field Ground Magnetics; a portable proton precession magnetometer was used in conjunction with an automatic base station magnetometer to conduct the ground magnetometer survey over the grid. The survey was designed to resolve the aeromagnetic anomaly as well as to investigate the faults and possible C.C.F./D.M. contact. Considerable time was spent in testing and preparing for the survey

* Webster proposed a model which included the following components (partly drawn from other authors):

- a) Sn is associated with late phases of S-type granites.
- b) Such granites in central N.S.W. have negative gravity anomalies and low magnetic relief, whilst I-types have a positive to zero gravity anomaly and moderate to strong magnetic anomaly.
- c) Mineralised late phases exhibit a magnetic aureole (e.g. N.W. Tasmania) or a magnetic anomaly (e.g. Ardlethan).
- d) In central N.S.W. there was structural control on the emplacement of granites and mineralised late phases.



Geological Interpretation
of Geophysical Modelling

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Inclination -72°
Intensity 62500 γ
Profile
orientation 78° (mag)
Susceptibilities (cgs units)
1: 0.003
2: 0.002
3: 0.004

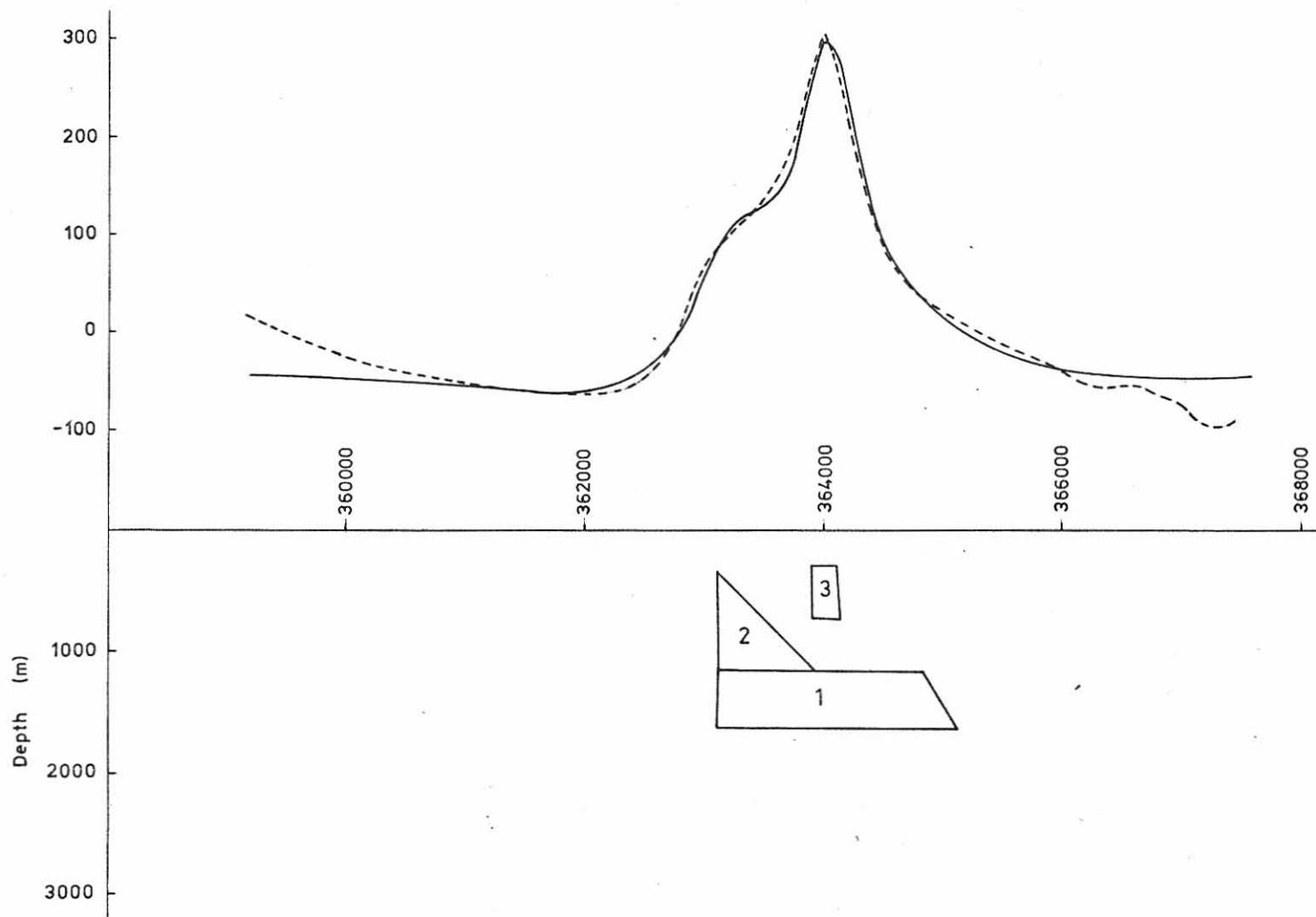


FIGURE C.
TASMANIAN MINES DEPT.
AEROMAGNETIC SURVEY
DUNKLEY FAULT GRID
Magnetic Modelling

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with the intention of obtaining a ± 1 gamma accuracy. The accuracy in fact appears to be closer to ± 2 or ± 3 gammas. For a discussion of the techniques and testwork, see Appendix 4. The base station was located at 15960N, 8975E (R.M.G.) and the base level set at 62400 gammas.

Contoured survey data (Plan 8) reveals a broad circular feature corresponding to a part of the larger feature seen on the aeromagnetics plan (Plan 7). The main aeromagnetic anomaly has been resolved into three separate peaks. The most intense response is centred over line 600S between 1550E and 2150E (see Plan 9d). This too can be subdivided into a broad, gently sloping dome and a superimposed sharper peak. The dome which has a slightly steeper slope on the western side is approximately 700 gammas above local background. The peak at 1900E is 1100 gammas above background, i.e. 400 gammas above the top of the dome. The gentle slope of the dome indicates some depth to the source, while the peak may be due to a shallower, and/or localised intense magnetic body. A similar response is seen on line 400 South. The dome corresponds to the peak shown in Figure c., i.e. the highly differentiated late stage intrusion of the model. The peak at 1900E may represent mineralisation within the overlying carbonate bearing sediments of the C.C.F.

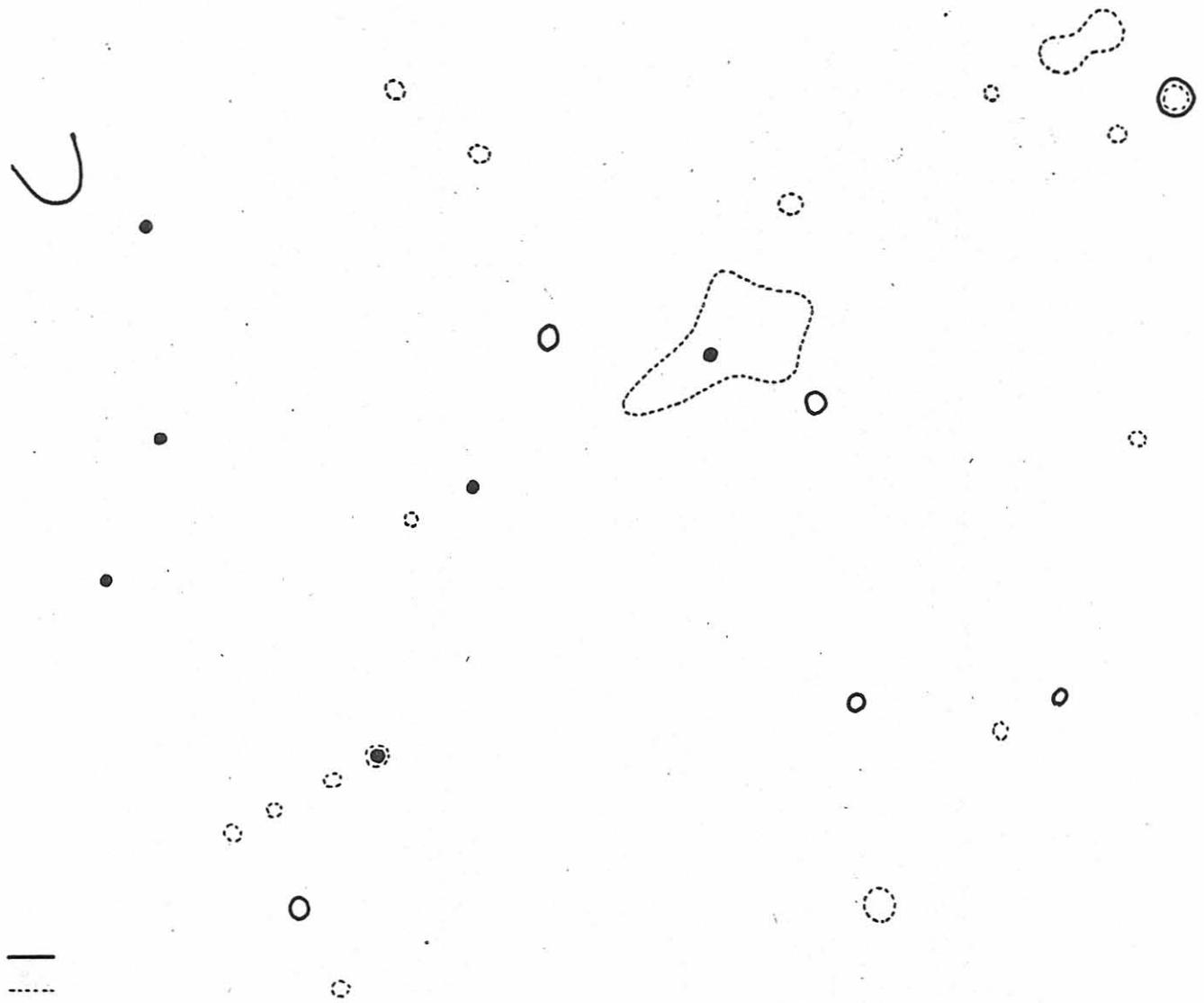
The second significant peak is just north of the main one on line 200S. The steepness of the peak suggests a shallow source. The source may be related to the Dunkley Fault which is thought to be very close to this anomaly.

A third strong anomaly occurs on line 600S to the West of the main anomaly. Besides these three, the survey defined a number of distinct localised anomalies which also require more detailed attention and modelling. Modelling, planned for after completion of the infill magnetics, will permit a semi-quantitative understanding of the sources of the various anomalies.

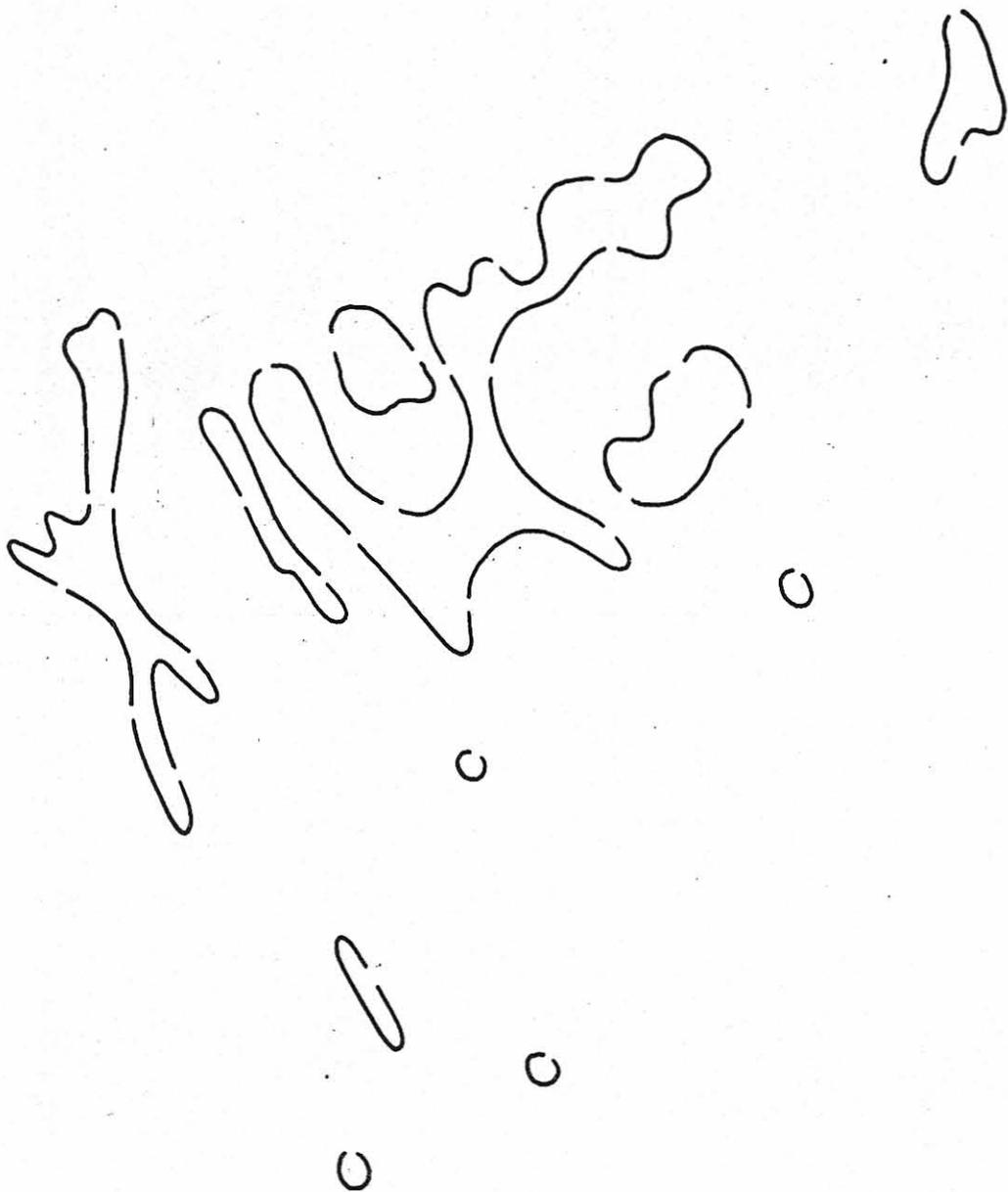
Other vague linear trends are also evident. These probably reflect stratigraphy, i.e. the interbedded magnetic tuffs and siltstones not uncommon within the C.C.F. Most of the peaks show a steeper slope on the west side than on the east. This suggests a source with an easterly dip. Observed bedding shows a moderate to steep southeast to southerly dip. A proposed E.M. survey should define the conductive and therefore potentially more significant magnetic sources.

5.3.4 Geochemistry:

Bedrock sampling was carried out over the grid at 50m spacing, (a total of 520 samples) on all the main grid lines by contractor N. Poltock. Poltock used a 2-stroke powered, 3" spiral auger with WO_3 tipped cutting edge. The aim of the program was to reach the weathered bedrock horizon to ensure 'in situ', unleached, uncontaminated samples. The whole sample was used without sizing. This was based on preliminary testwork discussed in Appendix 5. While most samples were retrieved without difficulty, those where the bedrock was in excess of 4 to 5 metres were very time and energy consuming. To avoid undue delays it was decided that a depth limit of 6 metres be set. It is assumed that all samples taken from above bedrock were from the C-horizon. Two lines, 2400S and 2600S, were not sampled because of time constraints and will be sampled during the

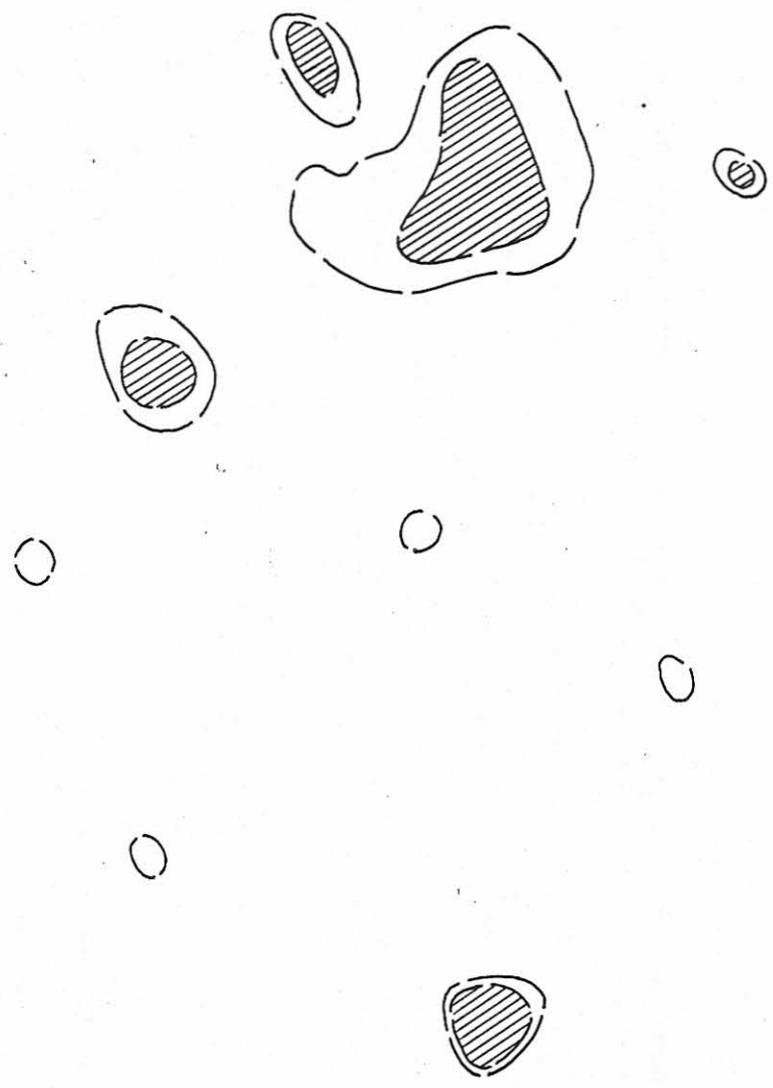


Unsmoothed Sn assays - 35ppm —
Unsmoothed As assays - 35ppm - - - -
Unsmoothed WO₃ assays - 35ppm ●

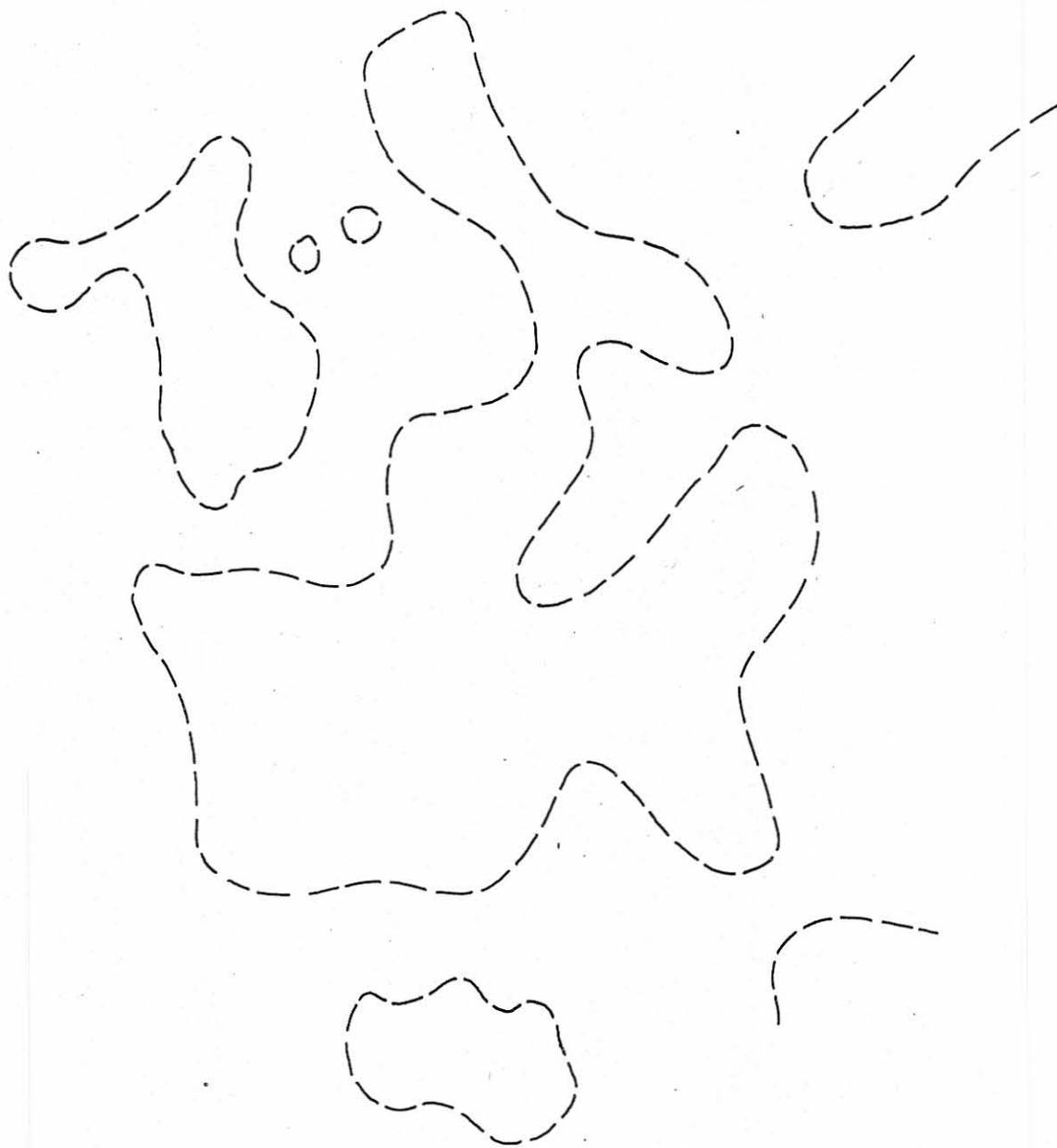


Unsmoothed Bi assays-45ppm

010877b

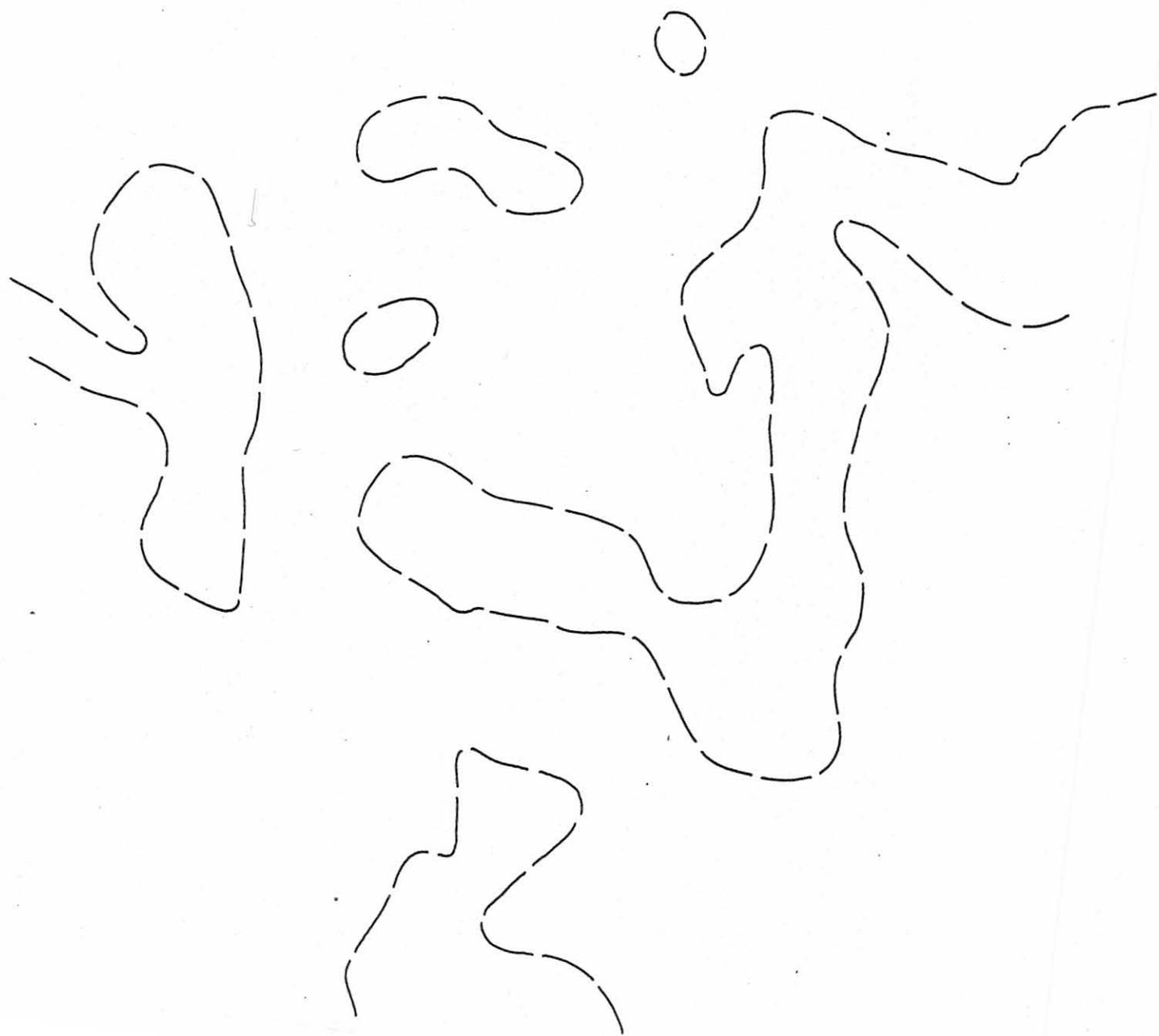


Total Field Ground Magnetics - 62800 γ 
63000 γ 

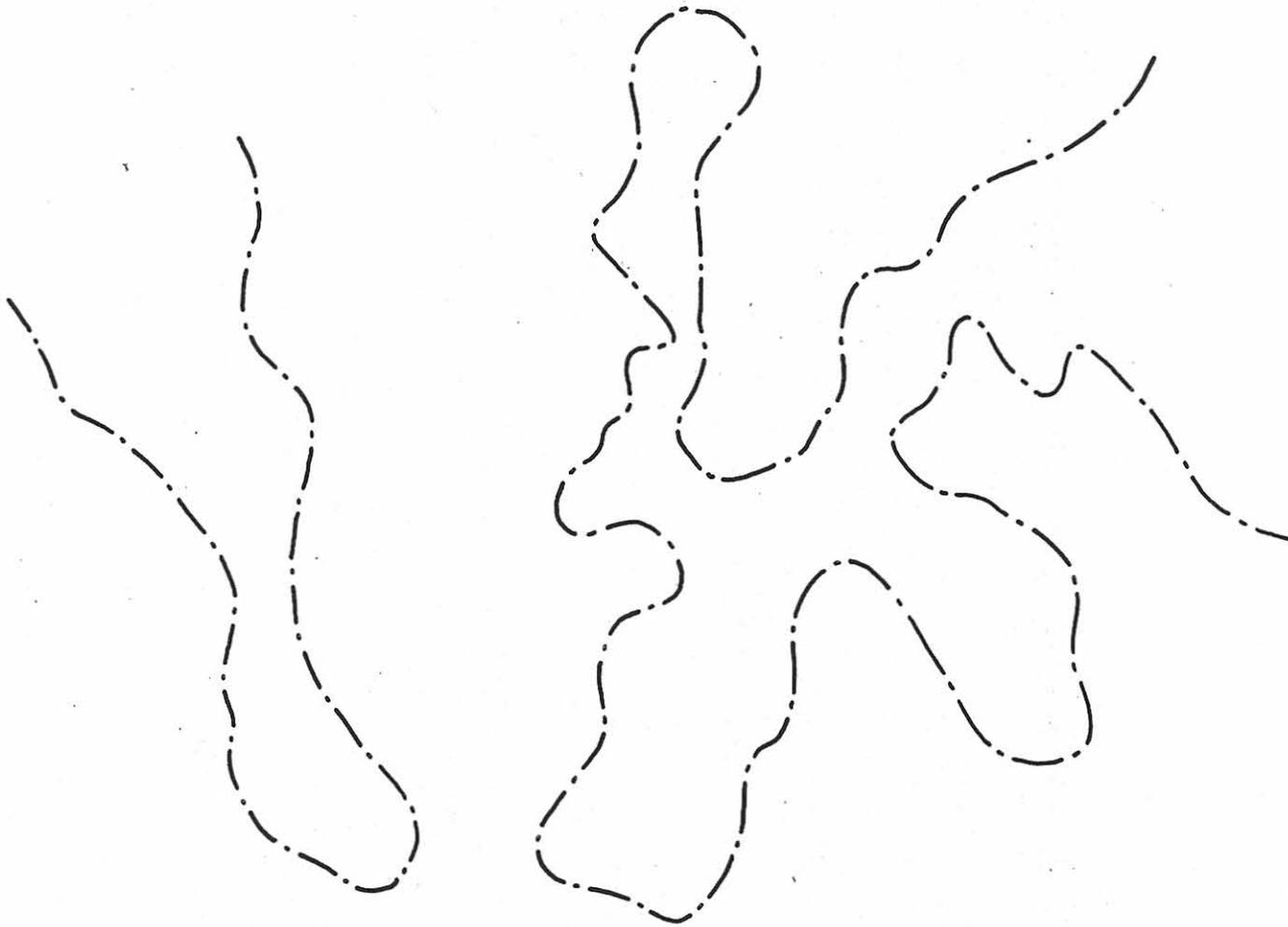


Smoothed Cu assays - 150ppm

448022

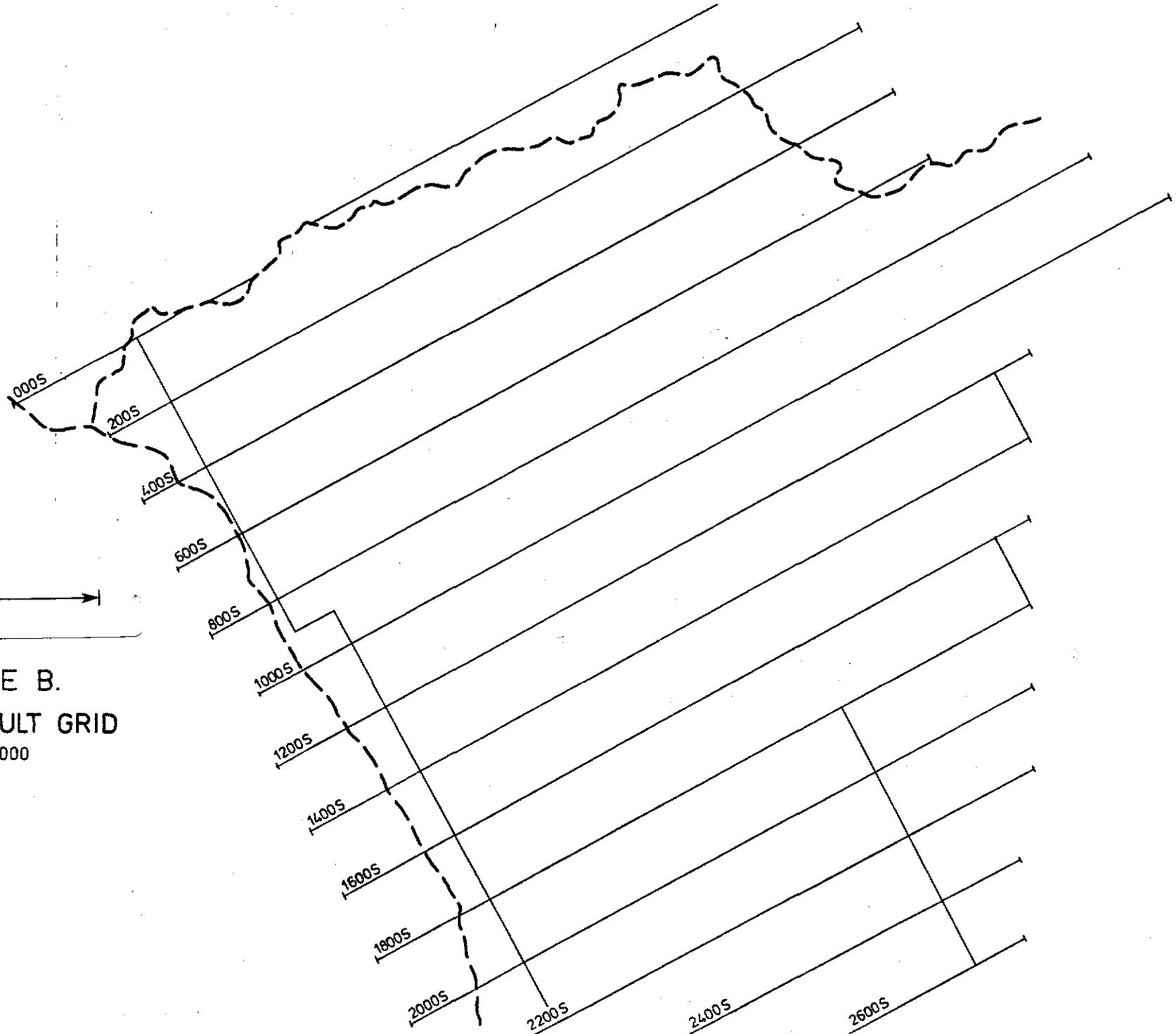


Smoothed Zn assays - 150ppm



Smoothed Pb assays - 50ppm





5 cm

FIGURE B.
DUNKLEY FAULT GRID
Scale 1:15000

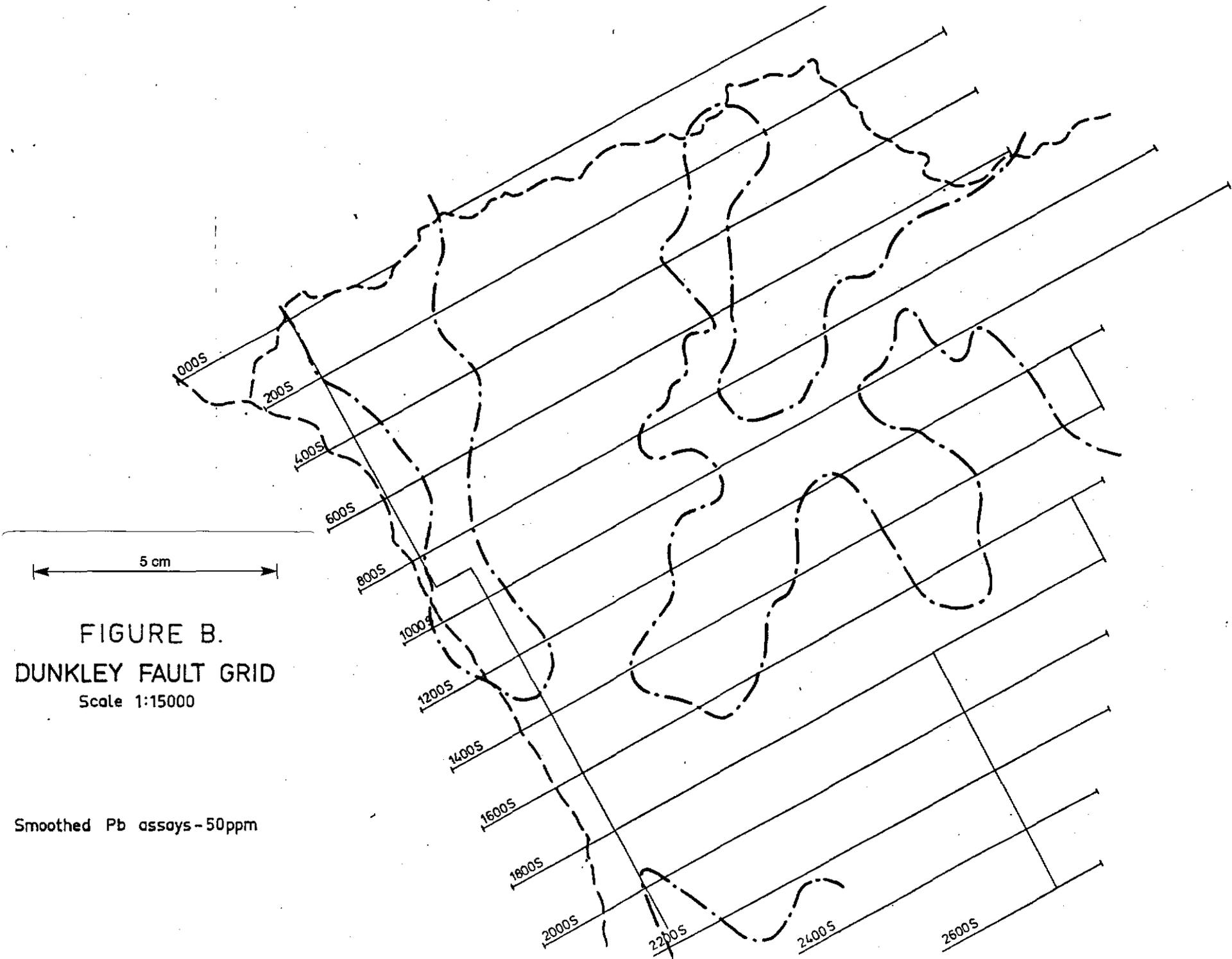


FIGURE B.
DUNKLEY FAULT GRID
Scale 1:15000

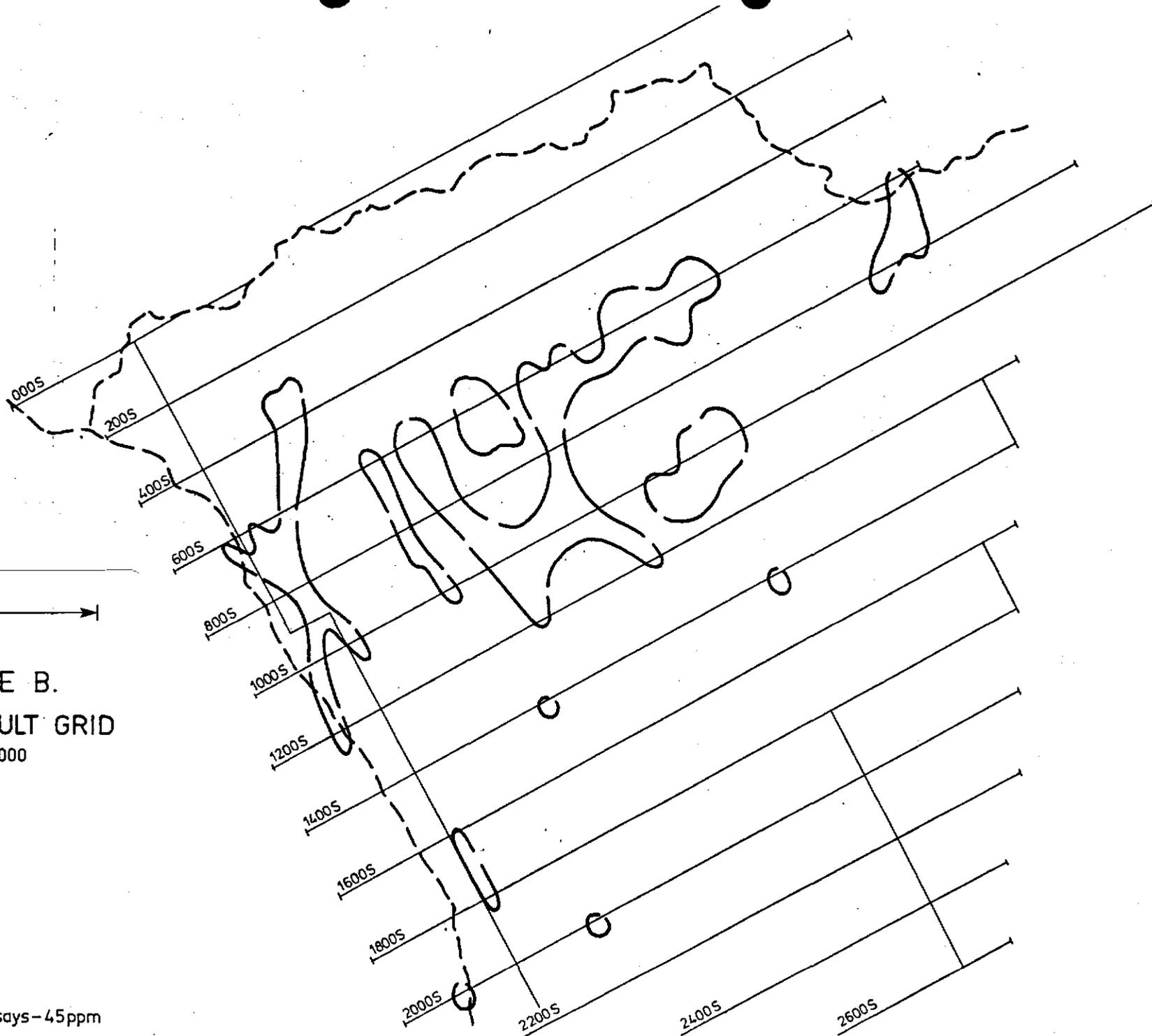
Smoothed Pb assays - 50ppm



5 cm

FIGURE B.
DUNKLEY FAULT GRID
Scale 1:15000

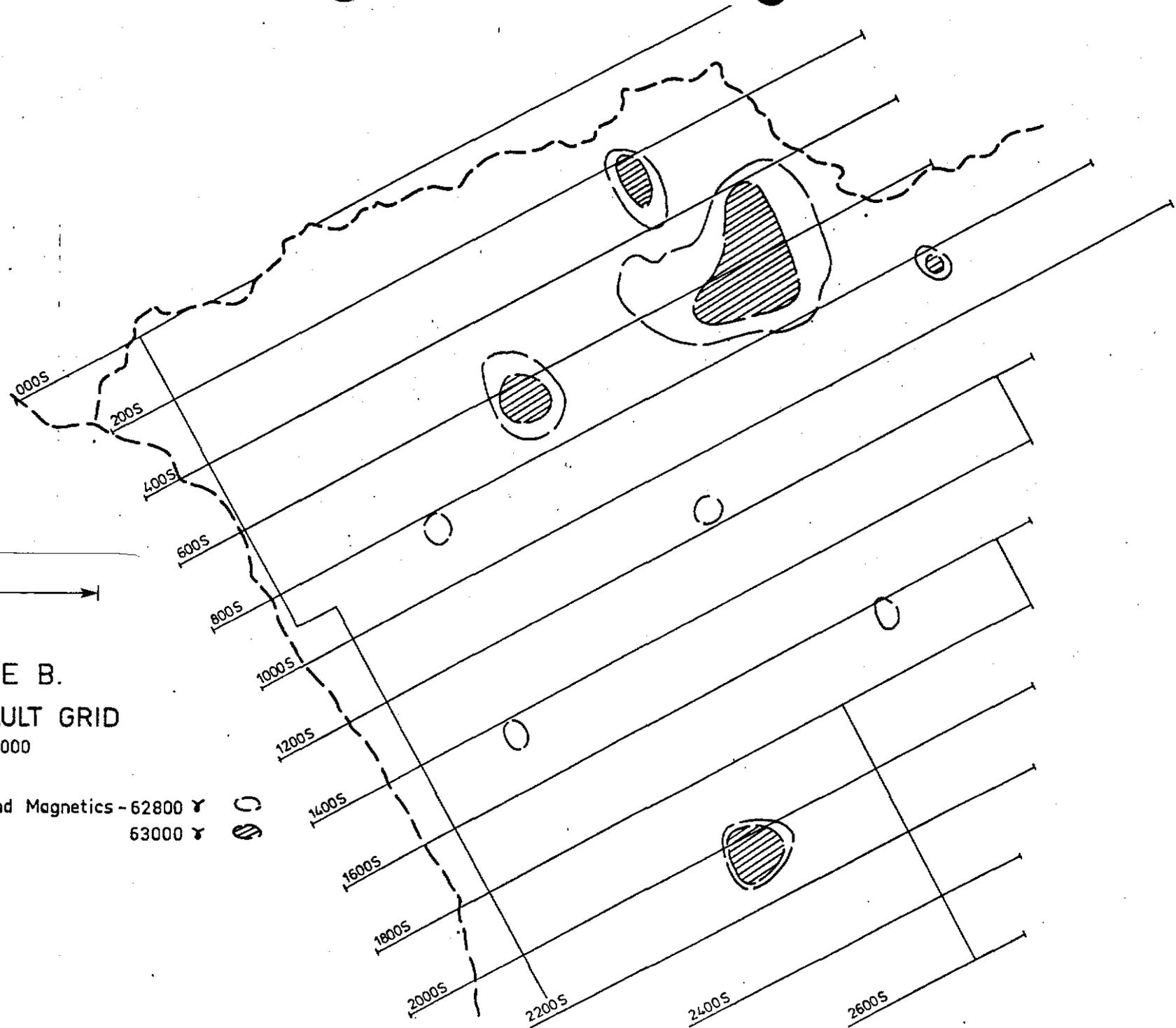
Unsmoothed Sn assays - 35ppm —
Unsmoothed As assays - 35ppm
Unsmoothed WO_3 assays - 35ppm ●



5 cm

FIGURE B.
DUNKLEY FAULT GRID
Scale 1:15000

Unsmoothed Bi assays-45ppm



5 cm

FIGURE B.
DUNKLEY FAULT GRID
Scale 1:15000

Total Field Ground Magnetics - 62800 γ 
63000 γ 

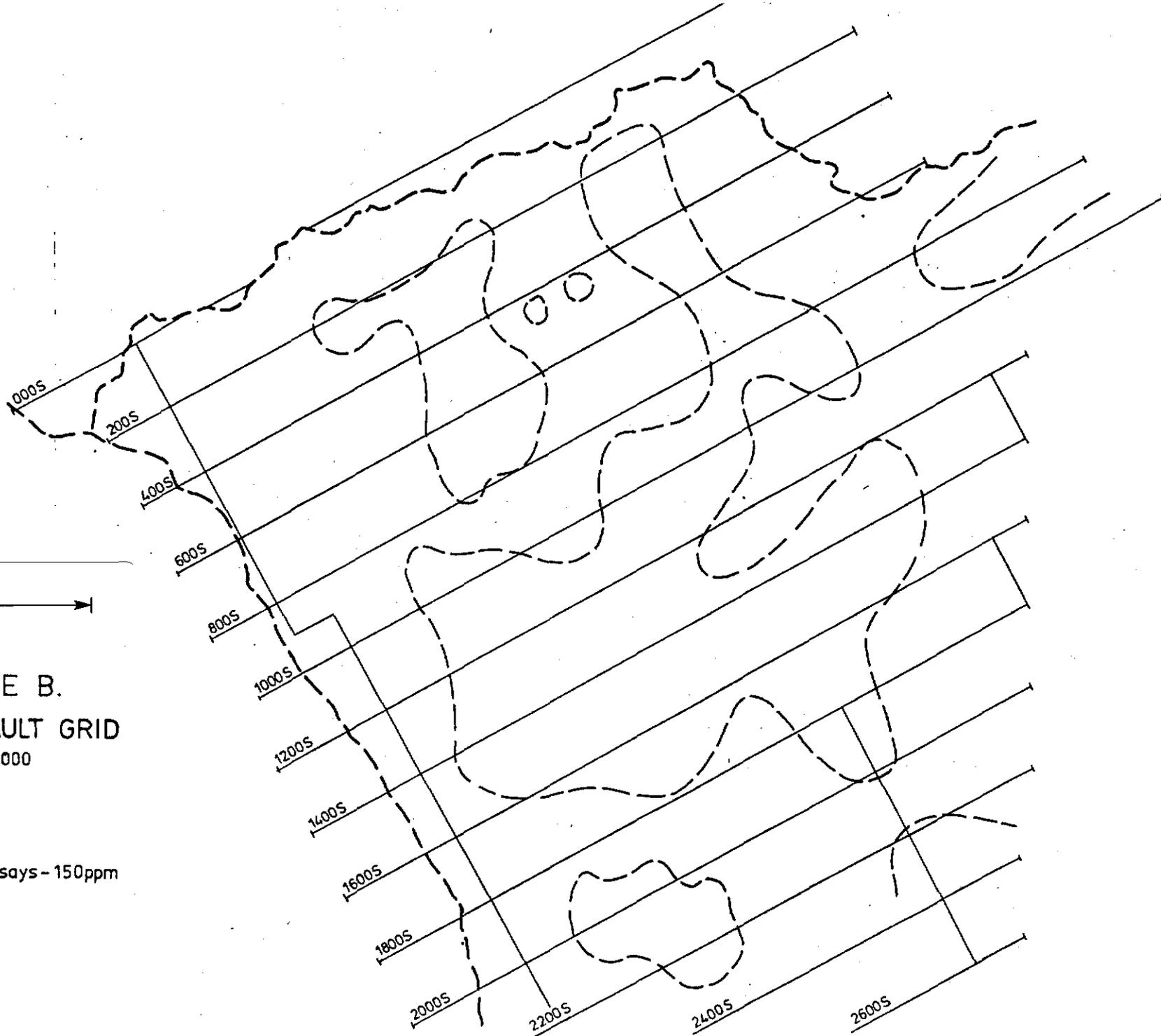
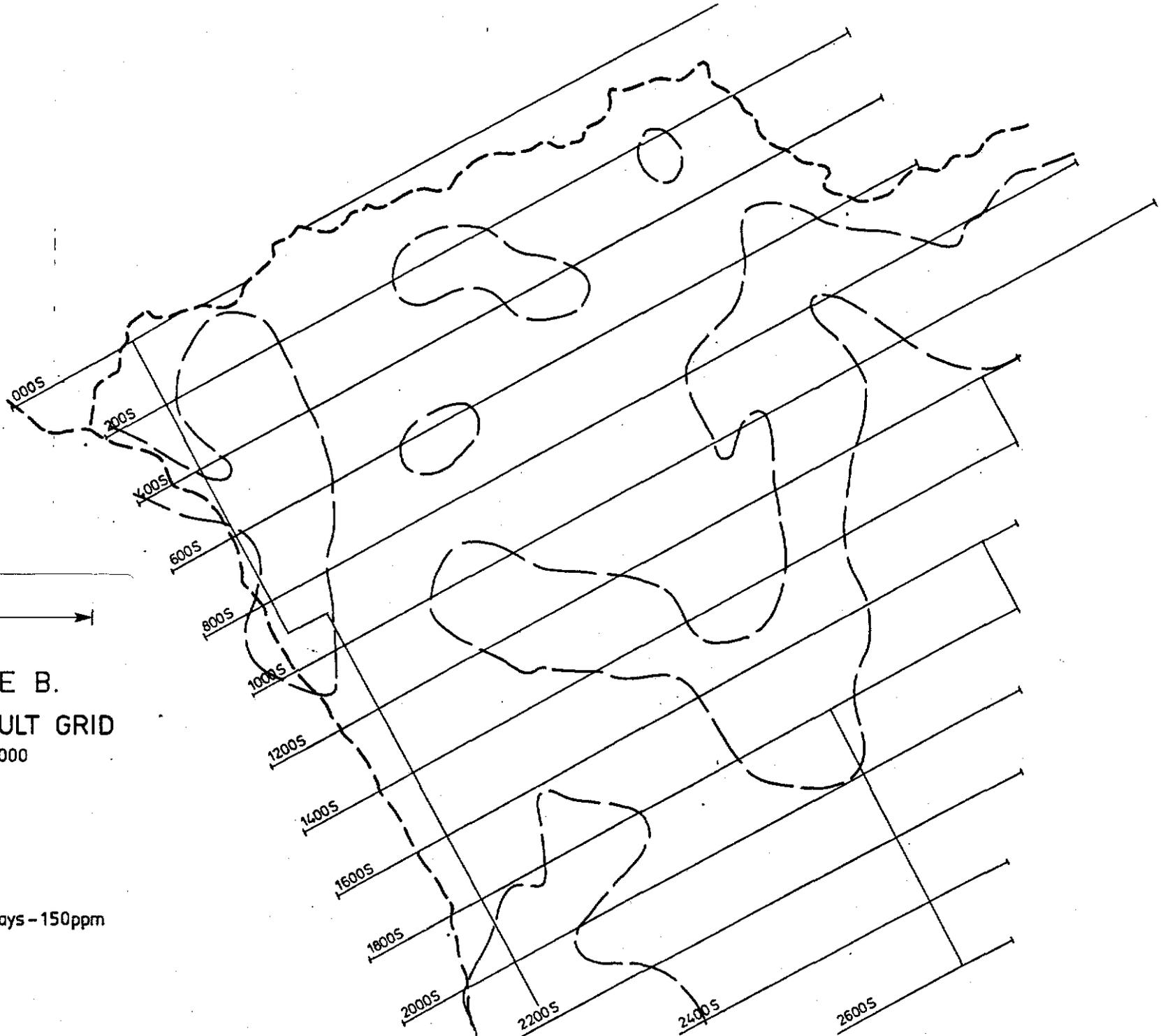


FIGURE B.
DUNKLEY FAULT GRID
Scale 1:15000

Smoothed Cu assays - 150ppm



5 cm

FIGURE B.
DUNKLEY FAULT GRID
Scale 1:15000

Smoothed Zn assays - 150ppm

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next program. The average depth drilled to retrieve a sample was 2.7m and sampling was completed in 37 working days; a total of 1380m of drilling at an average of 37.3m per day.

Assays were obtained for Sn, As, WO_3 , Bi, Cu, Pb and Zn, and are plotted on line profiles, Plans 9 a) to n) and contour Plans 10 a) to g).

Assays for Cu, Pb, Zn have been smoothed using a non-weighted 5-point running average. Both the assays and the smooth values are plotted but only the smoothed are contoured.

Observations; no distinct geochemical peak exists over the magnetic anomaly except for a suggestion of Bi. The Cu assays show a linear trend across the magnetic anomaly. As, Bi, Zn and Pb show a decided 200m wide linear trend paralleling the Boodecker Ridge. Sb assays were also obtained from these samples and showed values of 200-500 ppm, Appendix 6. This trend may be a result of mechanical dispersion down Eak Creek, however the values do not coincide exactly with the creek's position and no such correlation is observed with the other major creeks. The catchment for Eak Creek is bounded by the Boodecker and Arbuckle Ridges. A strong anomaly in Sn, Pb, Zn, As and to a lesser extent Cu and WO_3 exists on the northern end of the abovementioned linear anomalies in the general area of the intersection of the Dunkley and Boodecker Faults. This area and the associated linear anomaly have potential for fault bound mineralisation.

A zone of anomalous As, Zn, Pb and Cu exists near the ends of line 800S and 1000S, and may be related to the 'sickle-shaped' tail which follows the C.C.F./D.M. contact to the N.W. This anomaly spills into the adjacent lease. The Renison M.S. may exist in this area, but all observed contacts between C.C.F. and D.M. are faulted (see Plan 6), and no M.S. rocks have been identified. The area also has potential for fault-bound mineralisation.

The thin and continuous nature of the base metal geochemical response over both the Boodecker Fault and the C.C.F./D.M. contact in the Northwest as well as other minor linear features is obscured by the smoothing but is observable when looking at the raw data plotted above the smoothed data on Plans 10e-g.

An horse-shoe shaped trend in Zn, Pb, Cu and As surrounds an area just west of the main magnetic anomaly, Figure b. This zoning may conceivably represent an halo effect from a metasomatic style sulphide body [the offset of the magnetic anomaly is expected to some extent because of the declination of the earth's magnetic field - 72 degrees at these latitudes]. A similar zoning has been recorded at Cleveland. "Ore occurs as a roughly concentric zone around an interpreted high temperature cassiterite-poor core which can possibly be distinguished by elevated Bi contents. A cassiterite-poor, sphalerite and arsenopyrite-rich zone distinguished by Zn >2000 ppm and Pb >200 ppm, is usually at the outer margins of the ore" (Ranson et al, 1980, page 291).

RENISON LIMITED5.3.5 Conceptual Model: (figure d)

The following model based on mapping, bedrock sampling, and air and ground magnetics seeks to explain the observed anomalies and propose possible loci of Sn mineralisation.

A granite pluton intruding C.C.F. sediments, hornfelsed the overlying rocks causing a magnetic halo. The two major Faults, Dunkley and Boodecker, appear to offset the granite. From within the main granite emerged a fractionated late stage granitoid which proceeded to an higher level surrounded by a second magnetic halo. This highly differentiated magma caused circulation of Sn and base metal-rich fluids which formed greisen or replacement bodies or filled fissures created by the intruding body.

Fluids emanating from the main granite body and channelled preferentially along the major faults have also formed infill bodies in various zones within the structures.

5.4 KELLEHER RIDGE SECTOR

No work was carried out since the previous report.

5.5 WESTERN HILLS SECTOR

This new sector incorporates the "N.W. Section of EL42/71" and the "Dunkley Creek Sector" as defined in the 1981/82 Annual Report (see Figure 1.)

5.5.1 Access:

The Dunkley Tram was cleared to permit 4WD access to the Dunkley Fault Grid Sector. Due to the swampy nature of the valley floor on which the tramway was built, the track deteriorated to an impassable state. This has necessitated construction of a bypass route shown on Plan 2. Work was in progress at the time of writing, and completion is due in early December 1983.

The Dunkley Creek valley is currently being investigated as a possible future location for a tailings dam; this possibility was discussed in the previous report. As a part of the evaluation process, Coffey and Partners were contracted to assess possible damsites. This required construction of several kilometres of 4WD track and opened up this area of the license considerably. See Plan 2.

5.5.2 Geology:

Reconnaissance mapping of new access tracks has confirmed earlier mapping of Success Creek and Onah Formation rocks. Rock types observed include gritty and saccharoidal sandstones and quartzites with irregularly interbedded shales and siltstone. Occasional outcrops of extremely graphitic shales are also present (D1001). Some structural mapping has been undertaken by Coffey and Partners near the proposed damsites.

A summary of this data is recorded on Plan 2.

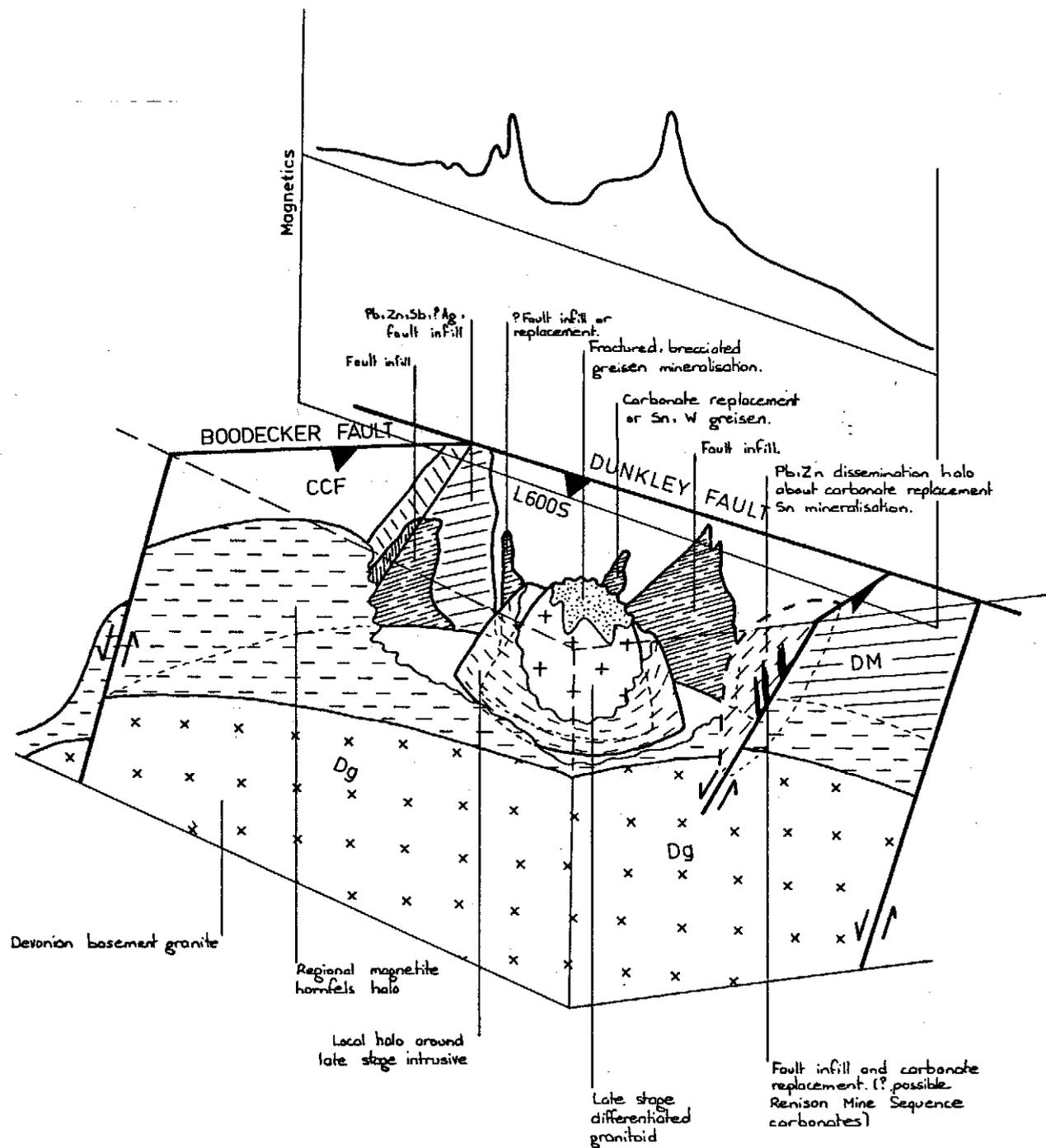


FIGURE (D) CONCEPTUAL MODEL OF GEOLOGY AND POSSIBLE MINERALISED ZONES WITHIN THE DUNKLEY FAULT GRID AREA. THE MAGNETIC PROFILE OF L600S IS SUPERIMPOSED.

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6. RECOMMENDATIONS TO JUNE 1984

6.1 FEDERAL FAULT SECTOR

One diamond drillhole was recommended to test for mineralisation within the Federal Fault and footwall M.S. just north of the Owen Meredith workings. This hole was completed in August 1983, S1134, and is reported in section 5.1. No further work is proposed before June 1984.

6.2 TUNNEL RIDGE SECTOR

The 1982/83 report included a recommendation for a single drillhole to follow up the earlier hole, S966, and the then future drilling on the southern part of the Renison Mining Lease. As mentioned in section 6.2, the recommended hole has not been drilled, and has not been budgetted for in this financial year. (See section 7.2).

6.3 DUNKLEY FAULT GRID SECTOR

Infill line cutting had commenced at the time of writing and is to include 15km of new gridline as shown on Plan 6. This is to be followed by infill ground magnetics and bedrock sampling on some lines. A V.L.F. survey is proposed for the entire grid subject to positive results from a trial survey in December. The survey is planned to enable definition of anticipated faulting and detect possible shallow conductors in the area.

Costeaming is recommended in some areas to aid mapping and sampling and possibly expose faults and the sources of surficial magnetic and geochemical anomalies. Costeams could be rehabilitated after mapping as they would be unusable after the first rain.

| <u>Proposed Costeams</u> | <u>Purpose</u> |
|--------------------------|--|
| 1. 100 S, 300 E | Test geochemical anomaly. |
| 2. 800 S, 2000 E | Expose faulted contacts between C.C.F. and S.C.G. over main magnetic anomaly - mapping aid and preliminary drillsite access. |
| 3. 600 S, 1800 E | |

A ground E.M. technique, possibly E.M.37 or UTEM survey is recommended to cover the entire grid and should commence toward the end of the financial year. The aim would be to test the conductivity of the magnetic anomalies and to define drilling targets more clearly. It is anticipated that the combination of magnetics, bedrock geochemistry, V.L.F. and a deep seeking E.M. survey will provide sufficient data on which to locate and orient a drillhole. Drilling is tentatively planned for end of summer 1984/85, however this will be reviewed following compilation of work in the next 12 months.

6.4 KELLEHER RIDGE SECTOR

Recommendations for this sector remain unchanged from that of the previous report. No work has been carried out since that time.

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6.5 WESTERN HILLS SECTOR

Detailed mapping sampling and petrology along new access tracks and reconnaissance investigation generally is required to confirm or refute earlier mapping.

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7. PROPOSALS TO JUNE 1985

7.1 FEDERAL FAULT SECTOR

It is recommended that the current mid-level program continues as discussed in section 5.1. A single drillhole is proposed beneath the Bon Accord workings as specified in the 1981/82 Annual Report.

| | |
|------------------------------|---------------|
| Collar co-ordinates | 22690N 14725E |
| Length | 800m |
| Dip | -71 degrees |
| Bearing | 258 R.M.G. |
| R.L. of Federal intersection | RL 1750 |
| Co-ordinates of intersection | 22650N 14540E |

7.2 TUNNEL RIDGE SECTOR

On the basis of the encouragement from the south Renison Mining Lease drilling two vertical holes should be provided for to test further for mineralisation within the expected westerly extension on the M.S. especially in the vicinity of known faults. Location of the second hole will be determined to some extent by the results from the first.

1. Collar co-ordinates 18000N 14400E
Length Approximately 800m
Base of M.S. Approximately 600m downhole
2. Collar co-ordinates 17500N 14200E
Length Approximately 850m
Base of M.S. Approximately 650m downhole

A further 3 to 4 holes would be necessary to complete the coverage of the area at a 600m spacing.

7.3 DUNKLEY FAULT GRID SECTOR

Following compilation of data from the current and recommended work, it is proposed that drill holes could be sited to test prospective areas. This of course is dependant on encouraging results especially from the deep seeking E.M. survey.

7.4 KELLEHER RIDGE SECTOR

Further work is dependant on results from earlier recommended programs - see section 6.4.

7.5 WESTERN HILLS SECTOR

Further work is dependant on results from earlier recommended programs - see section 6.5.

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- Ranson, D.M. and Sale, R.V. (1980): Cleveland Sn-Cu deposit, Dundas Trough, Western Tasmania - J. Geochem Exploration, Vol. 12, No. 2/3.
- Webster, S.S., (1982): A geophysical signature for Tin exploration? Text of a presentation to SMEDG Symposium "Tin in S.E. Australia", Sydney 1982.

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APPENDIX 1

EXPENDITURE ARGENT AREA EL42/71, 1982/83

GEOLOGY

- salaries 10,371
- salary on-costs 1,433
- transport 346
- outside contractors 1,691
- travel 11
- stores 814

ACCESS

- outside contractors 14,585

GEOCHEMISTRY

- assay 6,181
- outside contractors 4,200

GEOPHYSICS

- miscellaneous 1,150
- outside contractors 4,415

DRILLING

- outside contractors 63,893

SURVEYING

- outside contractors 1,439

LAND ACQUISITION

- license renewal 663

IN DIRECT MOTOR VEHICLE 267

TOTAL \$111,459

029

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APPENDIX 2

BUDGET ARGENT AREA, EL42/71, 1983/84

GEOLOGY

- salaries 13,845
- salary on-costs..... 2,214
- consumables..... 2,092
- other (drafting, etc.).....534

ACCESS

- gridline cutting 3,645
- site access, road construction and maintenance..... 8,833

GEOCHEMISTRY

- sampling 6,293
- sample preparation 1,570
- assay 5,308

GEOPHYSICS

- consultant..... 3,395
- E.M. survey (and magnetics base-station hire) 5,263

DRILLING

- outside contractor..... 37,323

SURVEYING

- Renison Survey Department 3,105

LAND ACQUISITION

- license renewal688

TOTAL \$94,108

030

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APPENDIX 3

GEOLOGICAL LOG OF DDH S1134

 * RENISON LIMITED *
 * DRILL CORE RECORD *
 * HOLE NO. S1134 *
 * *****

LOCATION : OWEN MEREDITH AREA
 PURPOSE : TO TEST NINE SEQUENCE AND FEDERAL
 COLLAR RL : 2176.60 m.
 NORTHING : 22083.40 m.
 EASTING : 14816.63 m.

LENGTH : 819.00 m.
 DATE COMMENCED : 29/07/83
 DATE COMPLETED : 06/09/83
 LOGGED BY : D. KILPATRICK
 WATER LEVEL :

| HOLE SIZE | | | SIGNIFICANT CORE LOSS ZONES | | |
|-----------|--------|------|-----------------------------|----|--------|
| FROM | TO | SIZE | FROM | TO | % LOSS |
| 0.00 | 144.00 | HR | | | |
| 144.00 | 427.00 | NQ | | | |
| 427.00 | 819.00 | BQ | | | |

ORE ZONE GROUND CONDITIONS

| ZONE | MECHANICAL STATE | HANGING WALL |
|------|------------------|--------------|
| | | |

COLLARED IN CCF H.W. OF OWEN MEREDITH - FEDERAL FAULT. INTERSECTED FEDERAL BETWEEN 384.8-386.1M ; MINERALISED. ?TRACHYTE BETWEEN 431.4 - 442.7M - SIMILAR TO THAT SEEN IN S370 AND S386 IN SAME AREA. A COMPLETE MINE SEQUENCE WAS ENCOUNTERED BETWEEN 515.9 - 751.2M INCLUDING 157M OF RRM. THE RRM INCORPORATES THE NO.2 DOLOMITE AT ITS BASE. NONE OF THE MINE SEQUENCE DOLOMITES WERE MINERALISED WITH THE EXCEPTION OF MINOR DISSEMINATED PYRITE IN ONE CHEKTY HORIZON WITHIN THE LOWER NO.3.

POINTS OPEN TO INTERPRETATION INCLUDE TWO FAULTS BENEATH THE INFERRED FEDERAL (493.4M; 511.2M), AND THE RRM-LIKE CONGLOMERATE AT THE BASE OF THE ?TRACHYTE (442.7 - 444.0M)

ASSAY DATA SUMMARY

| STRAT | FROM (M) | TO (M) | LENGTH (M) | Sn (%) | ANL Sn (%) | SOL Sn (%) | Cu (%) | Pb (%) | Zn (%) | As (G/T) | Bi (%) | As (%) | W03 (%) | S (%) | Sb (%) |
|-------|----------|--------|------------|--------|------------|------------|--------|--------|--------|----------|--------|--------|---------|-------|--------|
| FED | 385.00 | 386.80 | 1.80 | <0.01 | | 0.01 | 0.02 | 0.16 | 0.07 | 7. | 0.009 | <0.10 | <0.01 | 0.40 | |

SURVEY DATA

| SURVEY DEPTH (M) | BEARING (DEG) | GRID TYPE | DIP (DEG) | DIP TYPE | REMARKS |
|------------------|---------------|-----------|-----------|----------|---------|
| 0.00 | 243.30 | MINE | -75.30 | | |
| 49.00 | 241.00 | MINE | -75.60 | | |
| 96.00 | 248.00 | MINE | -74.30 | | |
| 203.00 | 251.00 | MINE | -74.10 | | |
| 281.00 | 251.00 | MINE | -74.20 | | |
| 338.00 | 255.00 | MINE | -70.50 | | |
| 404.00 | 259.00 | MINE | -68.20 | | |
| 468.00 | 259.00 | MINE | -66.10 | | |
| 547.00 | 262.00 | MINE | -63.70 | | |
| 595.00 | 263.00 | MINE | -61.70 | | |
| 679.00 | 265.00 | MINE | -58.10 | | |
| 759.00 | 266.00 | MINE | -55.90 | | |
| 819.00 | 269.00 | MINE | -53.00 | | |

448012

RENISON LIMITED

| FLAG | DEPTH | RECOVERED THICKNESS | % REC | ROCK TYPE | GEOLOGICAL DESCRIPTION OF STRATA | STRAT |
|------|--------|---------------------|-------|-------------------------|--|-------|
| | 21.00 | 6.00 | 28.6 | RUBBLE | RUBBLE: disintegrates on wetting, gradational base. Additional features include: rusty, very broken. SILTSTONE: crimson, fine to coarse grained, lithic, tuffaceous, turbiditic, fine bedding, graded bedding. | CCF |
| | 42.00 | 21.00 | 100.0 | SANDSTONE AND SILTSTONE | SANDSTONE: crimson, medium to coarse grained, tuffaceous, lithic, broken, massive, gradational base. SILTSTONE irregularly interbedded; crimson, fine grained, bca top to base. 67,45,37. | CCF |
| | 76.20 | 34.20 | 100.0 | TUFF AND SILTSTONE | TUFF: crimson - purplish grey, medium to coarse grained, sandy, minor calcite veins, gradational base. SILTSTONE: crimson, fine grained. Additional features include: tuffaceous, graded bedding, minor lithic component. Repeated turbiditic graded sequences fine, laminated siltstones to coarse massive tuffaceous greywacke, repeated every 0.3-1.0m. Bands included bleached green fractured siltstone with quartz veins and infilling tension dashes. 45.8-46.4m, 64-67m. Bca top to base. 43,49,53,38,46,38,41,43. | CCF |
| | 101.60 | 25.40 | 100.0 | GREYWACKE AND SILTSTONE | GREYWACKE: green - greenish grey, tuffaceous, lithic, massive, B.C.A. = 43 degrees, sharp planar base. SILTSTONE: crimson - greenish cream, fine bedding. Additional features include: turbiditic, graded bedding. MINERALISATION: quartz, sericite, chlorite veins, becoming more tuffaceous sandy with depth. Bca top to base 45,42,43,36,40 degrees. | CCF |
| | 160.40 | 58.80 | 100.0 | TUFF | TUFF: dark green - greenish grey, medium to coarse grained, lithic, calcareous, massive, fine bedding, becoming coarser towards the end of the unit; common calcite veins, fragments <10x3mm cream or orange brown cherty, tabular subrounded to angular, becoming finer to base. Bands include - SILTSTONE near top of unit; green, fine grained, ?tuffaceous, cross bedding, bca top to base. 43,49,38,48,49,38,34,54,58,55,60,55 degrees. Core becomes more massive toward base with dominant white flecks-lithic component with sparse coarser angular fragments. 135-138m coarse feathery diffuse cross bedding - 136.5-141m bands of dark grey core otherwise identical; fluid alteration? | CCF |
| | 160.60 | 0.20 | 100.0 | SILTSTONE | SILTSTONE: black, carbonaceous, calcareous, slickensided fracture, common graphite. | CCF |

448043

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| FLAG | DEPTH | RECOVERED THICKNESS | % REC | ROCK TYPE | GEOLOGICAL DESCRIPTION OF STRATA | STRAT |
|--------|-------|---------------------|-------|--------------------------------------|--|-------|
| | | | | | MINERALISATION: common pyrite blebs as disseminations. | |
| 164.10 | | 3.50 | 100.0 | GREYWACKE | GREYWACKE: mottled green - greenish grey, ?tuffaceous, calcareous, fractured, medium bedding, locally abundant calcite intermixed, sharp planar base, common joints. | CCF |
| | | | | | MINERALISATION: common calcite on joints veins. | |
| 164.50 | | 0.20 | 50.0 | ?FAULT | ?FAULT: black, ?tuffaceous, slickensided fracture, very broken, sheared, common calcite veins, base not recovered. Additional features include: brecciated, minor quartz veins. | CCFF |
| 197.80 | | 33.30 | 100.0 | SILTSTONE, GREYWACKE AND LITHIC TUFF | SILTSTONE (40%): dark greenish grey, fine grained, fractured, graded bedding, cross bedding alteration decreasing intensity towards end of unit. GREYWACKE (50%): green, tuffaceous, fragmented bedding, minor calcite bands. LITHIC TUFF near top of unit (10%): green. MINERALISATION: common chlorite alteration on joints bands intermixed, common calcite veins, base top to base 44,38,44,53,61 degrees. Black to dark grey-green chloritic alteration on joints and bands enhances fractured appearance. | CCF |
| 276.60 | | 78.80 | 100.0 | TUFF, GREYWACKE AND SILTSTONE | TUFF (60%): greenish grey, medium to coarse grained, lithic, calcareous, gradational base, common joints. GREYWACKE interbedded (35%): greenish grey, minor calcite intermixed. SILTSTONE near top of unit (5%): green finely interbedded. MINERALISATION: common calcite veins throughout, common chlorite alteration on joints, some coarser assemblatic tuffaceous zones in more massive zone in centre of unit. Base top to base 32, 35,44,32,41,47,47,32,32,32,47,48 degrees. Appearance is similar to unit above but is coarser grained. 272.5 -272.6m possible rounded pebbles within tuff - may be alteration feature only. Unit is very altered at base chloritised. | CCF |
| 282.10 | | 5.50 | 100.0 | SHEARED ROCK | SHEARED ROCK: black, carbonaceous, calcareous, slickensided fracture, fissile, laminated, abundant graphite intermixed, subangular, prolate, broken in patches. Additional features include: assemblatic fragments, fragments and clasts often calcareous sometimes siliceous from 1-15mm diameter. | CCFF? |

448041

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| FLAG | DEPTH | RECOVERED THICKNESS | % REC | ROCK TYPE | GEOLOGICAL DESCRIPTION OF STRATA | STRAT |
|------|-------|---------------------|-------|-----------|----------------------------------|-------|
|------|-------|---------------------|-------|-----------|----------------------------------|-------|

MINERALISATION: common calcite veins, minor quartz veins, minor pyrite replacing clasts, minor pyrite veinlets blebs on joints, unit may be fault or shearing may be due to fissile graphitic matrix.
 Bands include - SILTSTONE: thickness 0.50 m., base at 277.10 m., greenish grey, laminated, fragmented bedding, sharp planar base, with agglomerate; brecciated.

289.10 7.00 100.0 AGGLOMERATE

AGGLOMERATE: dark grey, banded, minor graphite on joints, B.C.A. = 50 degrees, sharp planar base, with dark grey - black, siliceous, cherty fragments clasts, angular, prolate, with calcareous clasts, subrounded, equant, with dolomitic, calcareous cobbles, subrounded, tabular.

CCF

MINERALISATION: common pyrite along strain boundaries replacing clasts cobbles, common calcite veins.

294.90 5.80 100.0 SILTSTONE, TUFF AND GRIT

SILTSTONE (50%): dark grey, fine grained, calcareous, fine bedding, cross bedding, minor graphite on joints, B.C.A. = 55 degrees, sharp planar base. TUFF irregularly interbedded (45%): light grey - greenish grey, medium grained, calcareous, graded bedding, cross bedding. GRIT near base of unit (5%): mottled light grey, calcareous.

CCF

MINERALISATION: minor pyrite as disseminations near top of unit.

311.70 16.80 100.0 TUFF AND SILTSTONE

TUFF (80%): greenish grey, medium to coarse grained, lithic, calcareous, fine bedding, B.C.A. = 50 degrees, sharp planar base. SILTSTONE irregularly interbedded (20%): dark grey - greenish grey, cross bedding, fine bedding, some cyclic turbiditic sequences. Base faulted?

CCF

MINERALISATION: sparse pyrite blebs near base of unit. Bands include - SHALE near base of unit: black, carbonaceous, calcareous, common graphite intermixed, common pyrite blebs.

324.50 12.80 100.0 SHALE, SANDSTONE AND LITHIC TUFF

SHALE (50%): black, fine grained, carbonaceous, calcareous, fine bedding, graded bedding, common pyrite blebs veins, B.C.A. = 54 degrees, gradational base. SANDSTONE interbedded (40%): light grey, medium to coarse grained, buffaceous, calcareous, fine bedding, cross bedding, minor pyrite as disseminations. LITHIC TUFF (10%): light grey - dark grey, fine to coarse grained, calcareous, sparse pyrite as disseminations.

CCF

MINERALISATION: common calcite veins on joints. Grades into less carbonaceous unit below. Shale is graphitic becoming less

448013

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| FLAG | DEPTH | RECOVERED THICKNESS | % REC | ROCK TYPE | GEOLOGICAL DESCRIPTION OF STRATA | STRAT |
|--------|-------|---------------------|-------|--|--|-------|
| | | | | | so. with depth. | |
| 365.10 | 40.60 | 100.0 | | SILTSTONE, SHALE AND LITHIC TUFF | <p>SILTSTONE (50%): greenish cream - light grey, fine to medium grained, Ptuffaceous, calcareous, fine bedding, cross bedding, B.C.A. = 56 degrees, gradational base.</p> <p>SHALE irregularly interbedded (40%): dark greenish grey - dark grey, fine grained, fine bedding.</p> <p>LITHIC TUFF (10%): light grey, fine to coarse grained, calcareous.</p> <p>MINERALISATION: locally abundant calcite intermixed decreasing abundance towards end of unit; common calcite veins stringers veinlets. Additional features include: disturbed and disrupted bedding, slumpings and microfaulting near middle of unit.</p> | CCF |
| 384.80 | 19.70 | 100.0 | | SILTSTONE, CARBONACEOUS SILTSTONE AND GRANULE CONGLOMERATE | <p>SILTSTONE (75%): purplish grey - greenish cream, fine grained, banded, common calcite intermixed bands, B.C.A. = 52 degrees, faulted base.</p> <p>CARBONACEOUS SILTSTONE (20%): dark grey - light grey, fine to coarse grained, calcareous.</p> <p>GRANULE CONGLOMERATE (.5%): pink - greenish cream, medium to coarse grained, calcite granules, faccretionary. Bands 2-5cm wide. Distinctive pebble-bed-like unit. Common calcite on bedding partings.</p> <p>Additional features include: sparse subrounded, calcareous cobbles clasts</p> <p>MINERALISATION: common calcite veins stringers on joints, minor perite blebs. Additional features include: sheared, fragmented bedding, carbonate veins near base of unit.</p> | CCF |
| 386.40 | 1.60 | 100.0 | | FAULT | <p>FAULT: calcareous, slickensided fracture, broken, sheared, common graphite throughout.</p> <p>Additional features include: brecciated near base of unit, macerated.</p> <p>MINERALISATION: abundant perite as disseminations near middle of unit, probable federal-owen meredith shear.</p> | FEDFT |
| 402.50 | 16.10 | 100.0 | | SILTSTONE AND CARBONACEOUS SILTSTONE | <p>SILTSTONE: green - greenish grey.</p> <p>CARBONACEOUS SILTSTONE interbedded; greenish grey - dark grey, calcareous microfaulting, intensely veined at base.</p> <p>MINERALISATION: common calcite veins stringers, minor rhodochrosite veins overprinting calcite stringers. Additional features include: fine bedding, irregular bedding, microfaulting, disturbed and disrupted bedding.</p> | CCF |

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RENISON LIMITED

| FLAG | DEPTH | RECOVERED THICKNESS | % REC | ROCK TYPE | GEOLOGICAL DESCRIPTION OF STRATA | STRAT |
|--------|-------|---------------------|-------|---------------------|--|-------|
| | | | | | MINERALISATION: minor calcite pebbles fragments near base of unit, bca top to base 50,55,35,25 deg. Abundant fracturing and calcite veining at base. | |
| 421.80 | 19.30 | 100.0 | | SHALE AND GREYWACKE | SHALE: black - greenish grey, fine bedding, irregular bedding, common calcite, minor rhodochrosite on bedding planes veins. GREYWACKE bands: tuffaceous, calcareous, medium bedding. Additional features include: microfaulting, disturbed and disrupted bedding, beds become more disrupted sheared microfaulted to base. | CCF |
| | | | | | MINERALISATION: common calcite veins stringers, minor pyrite replacing, calcite blebs near base of unit, bca variable 15-60 degrees. | |
| 424.70 | 2.90 | 100.0 | | SILTSTONE | SILTSTONE: light grey - creamy grey, fine grained, fractured, contorted bedding, fragmented bedding, sharp planar base. Additional features include: slumping and microfaulting, bca irregular almost dolomitic stulolitic texture. | CCF |
| | | | | | MINERALISATION: abundant calcite intermixed near top of unit, common quartz veins infilling in fractures, sparse pyrite on joints veinlets. | |
| 431.40 | 6.70 | 100.0 | | SHALE | SHALE: black, asilomeric, brecciated, common calcite veins, macerated, sharp planar base. Additional features include: sheared, massive, fragmented bedding. | CCF |
| | | | | | MINERALISATION: sparse pyrite intermixed on bedding planes, sparse pyrite replacing blebs. Bands include - VEIN: thickness 0.40 m., base at 426.50 m., massive, rhodochrosite, and, calcite infilling. SHEARED ROCK: thickness 0.20 m., base at 426.70 m., slickensided fracture abundant calcite intermixed, macerated. SHEARED ROCK: thickness 0.60 m., base at 428.60 m., quartzose, siliceous, abundant quartz veins. VEIN: thickness 0.10 m., base at 429.30 m., black, calcareous, sandy, pussy. | |
| 438.40 | 7.00 | 100.0 | | ROCK | ROCK: green, fine to medium grained, moderately soft, massive, abundant carbonate veins, accessory pyrite as disseminations, sharp planar base, possible Thasic intrusive. bright green = chlorite sericite serpentine with occasional wispy bands of harder cherty red or red brown material, occasional coarser bands show waxy serpentinous dark green mineral in cream ?feldspathic clayey matrix. One band 1.0m from base (3cm wide) contains white cherty nodules (av. 0.6cm diam.); ?accretionary about small nucleus. The white nodule has radiating striae and green ?chloritic | CCFT |

448047

RENISON LIMITED

| FLAG | DEPTH | RECOVERED THICKNESS | % REC | ROCK TYPE | GEOLOGICAL DESCRIPTION OF STRATA | STRAT |
|--------|-------|---------------------|-------|---------------------|--|-------|
| | | | | | alteration from rim inward-calcareous fine grained red-brown matrix. Minor shearing and slickensided fracture on joints. Appearance similar to unit described in s370 and s386 as trachyte. | |
| 442.50 | | 4.10 | 100.0 | ROCK | ROCK: red - crimson; moderately soft, massive, abundant calcite veins, B.C.A.= 40 degrees, sharp planar base, hematitic red colour fractured rock with three hard quartzite-like calcareous bands near top. Upper one has marble like birdseye texture similar to nodular zone in unit above. Calcite veins contain trace pyrite disseminations, minor chlorite alteration associated with calcite veining. | CCFT |
| 442.70 | | 0.20 | 100.0 | ROCK | ROCK: pink - green; argillaceous, ?tuffaceous, laminated, fine bedding near top of unit, fine pink laminations 2.3mm contain subangular to rounded quartzose fragments 0.8mm and is dissected by calcite filled joints perpendicular to bedding. Below laminated horizon occurs a graded pebble conglomerate zone of pink cherty fragments in green chloritic matrix-moderately soft. Whole unit contains trace calcite intermixed and is partially replaced by large calcite vein. Similar to rrm. | CCFT |
| 443.50 | | 0.80 | 100.0 | PEBBLE CONGLOMERATE | PEBBLE CONGLOMERATE: cream - crimson; ?tuffaceous, hematitic, moderately soft, graded bedding, B.C.A.= 42 degrees, sharp planar base. Bands include - SILTSTONE: thickness 0.20 m., base at 443.30 m., red - crimson, hematitic, moderately soft, laminated, fine bedding, B.C.A.= 62 degrees, sharp planar base, conglomerate is bimodal. Clasts are 2-10cm and rather fine grained dark green ?basaltic or white ?feldspar and subrounded. The matrix is a lithic ?tuffaceous hematitic rock with fragments lenticular and angular oriented parallel to bedding. The pebble fragments are at the base of the two conglomerate horizons which are separated by the silty horizon. Similar to rrm. | CCFT |
| 444.00 | | 0.50 | 100.0 | PEBBLE CONGLOMERATE | PEBBLE CONGLOMERATE: cream - green, sharp planar base, large tabular blocks of ?basalt and ?quartz-feldspar in green to light-green mudstone matrix - large quartzose clasts are jointed and infilled by quartz. Similar to rrm. | CCFT |
| 444.35 | | 0.35 | 100.0 | VEIN | VEIN: quartz, carbonate, chlorite, sharp planar base, vein is itself veined by quartz and calcite with minor chloritic pyrite veinlets. Schlickensided basal contact dolomitic stibolite-like chlorite veining green sericite with calcite near top. | CCFV? |
| 446.00 | | 1.65 | 100.0 | MUDSTONE | MUDSTONE: light greenish grey, fine grained, ?tuffaceous, silicified increasing intensity towards end of unit, sharp planar base. Bands include - PEBBLE CONGLOMERATE: thickness 0.01 m., base at | CCF? |

44804S

RENISON LIMITED

| FLAG | DEPTH | RECOVERED THICKNESS | % REC | ROCK TYPE | GEOLOGICAL DESCRIPTION OF STRATA | STRAT |
|--------|-------|---------------------|-------|---------------------------|--|--------|
| | | | | | 444.40 m.: green fragments, rounded, with kaolin matrix. Second less distinct horizon beneath. Fragments are elongated ovoid, possibly volcanic. | |
| 457.00 | 10.70 | 97.3 | | SILTSTONE AND SANDSTONE | SILTSTONE (70%): dark grey - black, fine grained, laminated, fine bedding, contorted bedding. SANDSTONE finely interbedded (30%): light grey, fine grained. MINERALISATION: sparse pyrite on joints, sparse pyrite blebs, occasional quartz filled tension sashes associated with arenaceous laminae. Bands include - BROKEN GROUND: thickness 0.90 m., base at 455.80 m., slickensided fracture, core loss. | CCF? |
| 458.70 | 1.70 | 100.0 | | DOLOMITE AND SILTSTONE | DOLOMITE (65%): white - light grey, strololitic, sparse pyrite as disseminations finely interbedded. SILTSTONE irregularly interbedded (35%): grey - dark grey, laminated, fine bedding. | CCF?D0 |
| 464.30 | 5.60 | 100.0 | | SILTSTONE AND SANDSTONE | SILTSTONE (80%): dark grey, fine grained, laminated, reworked, disturbed and disrupted bedding increasing intensity towards end of unit. SANDSTONE finely interbedded (15%): light grey, fine to medium grained, fragmented bedding. Bands include - SANDSTONE lenses (5%): light grey. Additional features include: turbiditic, cross bedding, fragmented bedding, brittle fragmented habit of arenaceous laminae gives agglomeratic appearance. Rare rounded ?dolomitic clasts minor quartz-carbonate filled tension sashes. MINERALISATION: sparse pyrite blebs. | CCF |
| 471.80 | 7.50 | 100.0 | | SILTSTONE AND AGGLOMERATE | SILTSTONE: light grey, moderately soft, muddy. AGGLOMERATE: dark grey - black, silty, interbedded ?turbiditic upward fining sequence of disturbed reworked agglomeratic siltstone fining to more lamellar siltstone or cross bedded sandy siltstone of massive fine light grey siltstone (?dolomitic) sequence is repeated about 8 times with intervals of 20cm to 3m. Unit above this is part of same repetition. The fine grained upper parts of the sequence is sometimes disturbed and reworked during deposition of overlying horizon. Bca irregular 28-54. MINERALISATION: minor pyrite as disseminations blebs. | CCF |
| 471.90 | 0.10 | 100.0 | | DOLOMITE | DOLOMITE: light grey, calcareous, laminated, minor chlorite alteration finely interbedded, B.C.A. 49 degrees, sharp irregular base, dip is at 90 | CCF00 |

RENISON LIMITED

| FLAG | DEPTH | RECOVERED THICKNESS | % REC | ROCK TYPE | GEOLOGICAL DESCRIPTION OF STRATA | STRAT |
|--------|-------|---------------------|-------|-----------|---|-------|
| | | | | | ded to units above and below. May be erratic. | |
| 482.70 | 10.80 | 100.0 | | SILTSTONE | <p>SILTSTONE: green - greenish cream, moderately soft, muddy, contorted bedding, disturbed and disrupted bedding, may be a turbiditic sequence similar to above (into which it appears to grade). Some zones appear more lamellar and less disturbed and may represent calmer period of deposition before the next depositional event. Green colour and occasional flesh pink cherty lenses and fragments reminiscent of the ?trachyte described above. Rare calcareous clasts (.E.G. 477.8m) with calcite chloritic filled radial fractures.</p> <p>MINERALISATION: sparse pyrite blebs.</p> <p>Bands include - SILTSTONE: thickness 0.60 m., base at 473.50 m., greenish grey.</p> <p>SILTSTONE bands: black, agglomeratic, similar to unit above 0.1m dolomite band.</p> | CCF |
| 486.00 | 3.30 | 100.0 | | SILTSTONE | <p>SILTSTONE: purple, agglomeratic, moderately soft, contorted bedding, slumped bedding, B.C.A. = 50 degrees, similar to unit above except for colour. Grades from disturbed contorted agglomeratic at base to lamellar fine irregular bedded at top.</p> <p>MINERALISATION: minor talc, chlorite alteration, accessory calcite intermixed, one calcareous clast with radial fractures (385.4m).</p> | CCF |
| 488.10 | 2.10 | 100.0 | | SILTSTONE | <p>SILTSTONE: green - buff, sandy, irregularly interbedded buff to light green or dark green ?chloritic siltstone and mudstones and cherts, with agglomeratic ?buffaceous horizons and dark green medium grained mottled ?basaltic-textured bands.</p> <p>MINERALISATION: common calcite clasts veins.</p> | CCF |
| 490.20 | 2.10 | 100.0 | | SILTSTONE | <p>SILTSTONE: red ?buffaceous, massive, fine bedding, B.C.A. = 48 degrees, intensely veined at base, with gritty pinkish cream clasts.</p> <p>MINERALISATION: common calcite, chlorite veins, hematitic colour. Contains clasts and bedded fragments of sandy ?buffaceous material. Irregularly interbedded chloritic silty and ?basaltic sandy units with pink and red silty band minor pyrite blebs intermixed.</p> | CCF |
| 495.40 | 0.90 | 17.3 | | ?FAULT | <p>?FAULT: chloritized, broken, sheared, abundant calcite veinlets, rock type is same as unit above.</p> | CCFF? |

RENISON LIMITED

| FLAG | DEPTH | RECOVERED THICKNESS | % REC | ROCK TYPE | GEOLOGICAL DESCRIPTION OF STRATA | STRAT |
|------|--------|---------------------|-------|-------------------------|---|-------|
| | 507.20 | 11.80 | 100.0 | SILTSTONE AND GREYWACKE | SILTSTONE (60%): red - purple, silty, disturbed and disrupted bedding, reworked, hematite. GREYWACKE irregularly interbedded (40%): green, chloritized, ?tuffaceous, sandy, strong hematitic purple red colouring. MINERALISATION: common calcite veins, trace chlorite, tourmaline alteration. | CCF |
| | 511.20 | 4.00 | 100.0 | ?TUFF | ?TUFF: green - creamy grey, silty, lithic, disturbed and disrupted bedding, B.C.A. = 60 degrees, possibly faulted base. Additional features include: broken, brecciated near top of unit, very similar to unit 471.9-482.7m, base is sharp planar at 32 deg to core axis with schlickensided fracture and distinct rock type change. Possible alternative federal-owen meredith fault. | CCF |
| | 515.90 | 4.70 | 100.0 | SILTSTONE AND SANDSTONE | SILTSTONE: black, fine grained, disturbed and disrupted bedding, trace chlorite alteration, B.C.A. = 48 degrees, possibly faulted base. SANDSTONE irregularly interbedded: light grey, fine grained, fragmented bedding, slumping and microfaulting. Bands include - SHEARED ROCK: thickness 1.40 m., base at 515.80 m., black fine grained, silty, lithic, slickensided fracture, brecciated. ?FAULT: thickness 0.10 m., base at 515.90 m., sandy, brecciated, macerated. MINERALISATION: minor calcite veins increasing abundance towards end of unit, minor pyrite blebs decreasing abundance towards end of unit. | CCF |
| | 523.60 | 7.70 | 100.0 | DOLOMITE AND SILTSTONE | DOLOMITE (80%): light grey, stibolitic, abundant quartz veins. SILTSTONE irregularly interbedded (20%): dark grey - black, banded. Bands include - DOLOMITE: thickness 1.90 m., base at 517.80 m., fractured. SILTSTONE: thickness 0.80 m., base at 518.60 m., light grey, dolomitic, banded, minor pyrite as disseminations finely interbedded, B.C.A. = 48 degrees, sharp irregular base. MINERALISATION: minor chlorite alteration in stibolites, base is sheared schlickensided graphitic. | 17 |
| | 527.20 | 3.60 | 100.0 | SILTSTONE AND SANDSTONE | SILTSTONE (80%): dark grey, carbonaceous, sharp planar base. SANDSTONE irregularly interbedded (20%): light grey, fine grained. Bands include - DOLOMITE: thickness 0.20 m., base at 525.80 m. MINERALISATION: common pyrite blebs. Base is disconformable. | RRMT |

No 1?

RENISON LIMITED

| FLAG | DEPTH | RECOVERED THICKNESS | % REC | ROCK TYPE | GEOLOGICAL DESCRIPTION OF STRATA | STRAT |
|------|--------|---------------------|-------|---------------------------------------|---|-------|
| | 530.80 | 3.60 | 100.0 | SILTSTONE | SILTSTONE: green - pink, siliceous, cherty, hard, massive, fragmented bedding, microfaulting. Bands include - CONGLOMERATE: thickness 0.30 m., base at 527.70 m., yellow - green, chloritized. TUUFF: light green - greenish grey, lithic. CONGLOMERATE: thickness 0.40 m., base at 530.80 m., green - pink, with quartzite clasts same as band at top of unit. | RRM? |
| | 533.50 | 2.70 | 100.0 | CHERT | CHERT: pink, massive. Additional features include: fractured, fine bedding near middle of unit, B.C.A. = 49 degrees, fine bedding near base of unit, B.C.A. = 62 degrees. Bands include - CHERT laminae: thickness 0.20 m., base at 533.10 m. in septarian cracks. | RRM? |
| | 536.30 | 2.80 | 100.0 | CHERT | CHERT: light grey, dolomitic, with small rounded calcareous pebbles. Rare rounded pink cherty clasts. Rare stromatolitic veins. | RRM? |
| | 537.40 | 1.10 | 100.0 | MUDSTONE AND PEBBLE CONGLOMERATE | MUDSTONE: greenish cream - cream, tuffaceous, irregular bedding, B.C.A. = 60 degrees, sharp planar base. PEBBLE CONGLOMERATE irregularly interbedded: green - greenish cream. Additional features include: cherty, quartzose fragments, poorly sorted, angular, calcareous, muddy fragments, subangular. MINERALISATION: trace calcite intermixed veinlets. | RRM? |
| | 546.70 | 9.30 | 100.0 | CONGLOMERATE, SILTSTONE AND SILTSTONE | CONGLOMERATE: gradational base. SILTSTONE: blue, carbonaceous. SILTSTONE: light grey, dolomitic, asilomeric, brecciated. Conglomerate contains abundant subangular quartz chert and siliceous mudstone fragments in a variety of matrices from black carbonaceous mud to light grey tuffaceous or dolomitic material. MINERALISATION: minor pyrite nodules replacing fragments, grades to light grey siliceous quartzose siltstone at base. | RRM? |
| | 550.80 | 4.10 | 100.0 | SILTSTONE | SILTSTONE: light green, siliceous, muddy, banding, irregular bedding, sharp irregular base, no bed determinable. Base conformable against conglomerate below. | RRM? |
| | 554.00 | 3.20 | 100.0 | PEBBLE CONGLOMERATE | PEBBLE CONGLOMERATE: green - pink, common calcite veins throughout, gradational base. Additional features include: quartzose, silty, cherty clasts, subrounded. Bands include - QUARTZITE: thickness 1.20 m., base at 553.30 m., | RRM? |

RENISON LIMITED

| FLAG | DEPTH | RECOVERED THICKNESS | % REC | ROCK TYPE | GEOLOGICAL DESCRIPTION OF STRATA | STRAT |
|--------|-------|---------------------|-------|-------------------------------------|---|-------|
| | | | | | asslomeratic, fractured, common calcite intermixed. | |
| 557.30 | 3.30 | 100.0 | | TUFF, MUDSTONE AND CHERT | TUFF (50%); greenish cream, lithic, asslomeratic, B.C.A.= 72 degrees. MUDSTONE finely interbedded (40%); greenish cream - green. CHERT irregularly interbedded (10%); red, basal 0.2m is calcareous breccia conglomeration. Base is sheared and chloritic Tfaulted. | RRM |
| 567.90 | 10.60 | 100.0 | | MUDSTONE AND PEBBLE CONGLOMERATE | MUDSTONE (80%); light green - light grey, silty, becoming finer towards the end of the unit, B.C.A.= 65 degrees. PEBBLE CONGLOMERATE near top of unit (20%); dark grey - black, minor pyrite replacing. Additional features include: calcareous fragments, subrounded, black, silty fragments, subangular. MINERALISATION: minor calcite veins. The mudstone contains occasional rounded cherty fragments and some lithic horizons. Bca varies 45-70 degrees sparse pyrite finely interbedded. Broken zone 564.5-656.0m. Bedding more evenly laminated below broken section. Base 90 deg to core axis and marked by calcite chlorite vein. | RRM |
| 572.80 | 4.90 | 100.0 | | PEBBLE CONGLOMERATE AND SILTSTONE | PEBBLE CONGLOMERATE (70%); light grey - dark grey, carbonaceous, B.C.A.= 55 degrees. SILTSTONE irregularly interbedded (10%); light grey, laminated, irregular bedding, cross bedding. Conglomerate might be described as lithic siltstone since matrix is dominant. Fragments are subangular rarely with internal bedding. Fragments in some horizons elongated with bedding. Bca 45-65 degrees. MINERALISATION: sparse pyrite replacing clasts. Additional features include: sparse pyrite blebs, some bands have calcareous matrix and fragments more common near base. Some graphitic horizons. | RRM |
| 579.70 | 6.90 | 100.0 | | DOLOMITE, SILTSTONE AND AGGLOMERATE | DOLOMITE (85%); light grey, siliceous, fractured. SILTSTONE irregularly interbedded (10%); dark grey, fine bedding. AGGLOMERATE (05%); dolomitic, silty, dolomite contains occasional quartz clasts. Becomes less fragmented near base with more regular interbeds of siltstone. Bca 65-45 deg top to base. MINERALISATION: sparse pyrite veins near top of unit. | RRMIO |
| 582.90 | 3.20 | 100.0 | | SILTSTONE | SILTSTONE (90%); light grey - dark grey, buffaceous, carbonaceous, moderately soft, fine bedding, indistinctly bedded, sharp planar base, | RRM |

RENISON LIMITED

| FLAG DEPTH | RECOVERED THICKNESS | % REC | ROCK TYPE | GEOLOGICAL DESCRIPTION OF STRATA | STRAT |
|------------|---------------------|-------|-------------------------------|--|-------|
| | | | | with dolomite bands (10%); light grey, siliceous. Bands include - SHEARED ROCK; thickness 0.10 m., base at 582.30 m., quartzose, calcareous, minor perite as disseminations, arenaceous. Interbeds become common towards base show microfaulting. Rec variable 52,75,70,62 degrees. | |
| | | | | MINERALISATION: minor calcite veins. | |
| 585.80 | 2.90 | 100.0 | MUDSTONE | MUDSTONE: light blue - greenish grey, silty, ?tuffaceous, moderately soft banded, fine bedding, B.C.A. = 64 degrees, gradational base. | RRM |
| 597.80 | 12.00 | 100.0 | SILTSTONE, MUDSTONE AND CHERT | SILTSTONE: red - crimson, fine bedding, B.C.A. = 60 degrees, sharp irregular base. MUDSTONE interbedded. CHERT increasing abundance towards end of unit; red, sharp bedding planes, not graded bedding. Becomes silified cherty near base. Chert is bright orange red. | RRM |
| 604.40 | 6.60 | 100.0 | PEBBLE CONGLOMERATE | PEBBLE CONGLOMERATE: purple clasts, poorly sorted, some contact, subrounded, equant, with chert matrix; red - pink, silty, clasts are purple ?tuffaceous siltstone or smaller quartz cherty or mottled ?basic fragments. All could be derived from units below. | RRM |
| 606.30 | 1.90 | 100.0 | SILTSTONE | SILTSTONE (70%): red, laminated, fine bedding, B.C.A. = 78 degrees, with pebble conglomerate bands (30%); purple - pink, conglomerate clasts same as for unit above. | RRM |
| 653.20 | 46.90 | 100.0 | ROCK | ROCK: purple, silty, ?tuffaceous, fractured, sharp planar base. Additional features include: massive. | RRM |
| | | | | MINERALISATION: abundant calcite veins increasing intensity towards end of unit, abundant calcareous chloritised foliated bands. This unit is conceivably a boulder conglomerate with calcareous matrix. The rock contains common to abundant intermixed calcite below 620m. Bleached to grey toward base. Green chloritic actinolite colour last metre. | |
| 660.30 | 7.10 | 100.0 | DOLOMITE | DOLOMITE: light grey, calcareous, siliceous, fractured, common quartz veins. Additional features include: conglomeric near top of unit, with siltstone bands; dolomitic. | 2TDO |
| 663.20 | 2.90 | 100.0 | SILTSTONE, ?TUFF AND | SILTSTONE: light grey - pink, dolomitic, fractured. ?TUFF: light greenish grey, laminated, fine bedding, graded bedding, | 2? |

RENISON LIMITED

| FLAG | DEPTH | RECOVERED THICKNESS | % REC | ROCK TYPE | GEOLOGICAL DESCRIPTION OF STRATA | STRAT |
|--------|-------|---------------------|-------|---|---|-------|
| | | | | CHERT | B.C.A.= 53 degrees. CHERT: pink, quartzose, silty. Additional features include: calcareous. | |
| 668.60 | 5.40 | 100.0 | | DOLOMITE | DOLOMITE: light grey, conglomeric, fractured. Additional features include: abundant fragments, poorly sorted, angular, calcareous matrix. | 27 |
| 674.60 | 6.00 | 100.0 | | SILTSTONE, CHERT AND TUFF | SILTSTONE near top of unit (50%): pink - greenish cream, siliceous, dolomitic, common calcite intermixed. CHERT near middle of unit (30%): pink, quartzose, laminated, fine bedding contorted bedding near base of unit, B.C.A.= 44 degrees. TUFF near base of unit (20%): white, flowbanded nodular fining upward. | RRM |
| 680.60 | 6.00 | 100.0 | | CONGLOMERATE | CONGLOMERATE: light grey - pink, clasts consist of subangular to subrounded quartz and laminated siliceous siltstone and dolomite as well as smaller angular silty fragments in moderately soft. Bands include - TUFF: thickness 0.40 m., base at 680.00 m., buff, agglomeratic fragments, well sorted, good contact, rounded, tabular, B.C.A.= 63 degrees; fragments are 0.4cm. | RRM |
| 681.70 | 1.00 | 90.9 | | DOLOMITE | DOLOMITE: silicified, broken, fractured. Additional features include: agglomeratic near top of unit near base of unit, stylolitic. MINERALISATION: abundant calcite intermixed near base of unit. | 27 |
| 683.90 | 2.20 | 100.0 | | MUDSTONE, SILTSTONE AND LITHIC TUFF | MUDSTONE: light greenish grey - light grey, fine grained, becoming coarser towards the end of the unit. SILTSTONE finely interbedded: light grey - dark grey, fine grained, carbonaceous, tuffaceous. LITHIC TUFF: light greenish grey. Irregularly interbedded to massive mudstone-fine silt stone at top gives way to more regularly interbedded to finely inter-laminated black siltstone and coarser arenaceous siltstone. MINERALISATION: sparse pyrite blebs finely interbedded. Bands include - SILTSTONE: thickness 0.10 m., base at 681.80 m., calcareous, laminated, abundant pyrite as disseminations finely interbedded, bca 54,59,72,57,61 degrees. | RRM |
| 684.30 | 0.40 | 100.0 | | DOLOMITE, SILTSTONE AND | DOLOMITE, SILTSTONE near top of unit: dolomitic. | RRMDD |

RENISON LIMITED

| FLAG | DEPTH | RECOVERED THICKNESS | % REC | ROCK TYPE | GEOLOGICAL DESCRIPTION OF STRATA | STRAT |
|--------|-------|---------------------|-------|-------------------------|--|-------|
| | | | | SILTSTONE | SILTSTONE finely interbedded; black; carbonaceous. | |
| 685.70 | 1.40 | 100.0 | | SILTSTONE AND GREYWACKE | SILTSTONE: dark grey, fine grained, cross bedding, B.C.A. = 65 degrees, gradational base. GREYWACKE finely interbedded; cream - light grey, fine grained, fine interbeds separated by black carbonaceous lamellae average 0.2-0.5cm apart; arenaceous horizons show some scouring features. MINERALISATION: sparse pyrite finely interbedded near base of unit. | RBM |
| 698.60 | 12.90 | 100.0 | | SILTSTONE AND GREYWACKE | SILTSTONE: black, laminated, fine bedding, abundant graphite intermixed, B.C.A. = 60 degrees. GREYWACKE increasing abundance towards end of unit; light grey - dark grey, fine grained finely interbedded. MINERALISATION: common pyrite finely interbedded blebs increasing abundance towards end of unit. Bands include - BROKEN GROUND: thickness 6.00 m., base at 693.00 m., black, slickensided fracture, sheared, fragmented bedding, abundant graphite intermixed, abundant quartz, and; calcite veins, common calcite intermixed, minor quartz, chlorite, pyrite veins, minor pyrite finely interbedded, bca top to base 60,65,58,61,65,58. | RBM |
| 700.90 | 2.30 | 100.0 | | SILTSTONE | SILTSTONE: light grey, fine to coarse grained, fine bedding, B.C.A. = 61 degrees, sharp irregular base. Additional features include near base of unit; sands, common chlorite alteration near base of unit. MINERALISATION: common quartz, carbonate, minor chlorite veins. | RBM |
| 709.00 | 8.10 | 100.0 | | DOLOMITE | DOLOMITE: light grey, calcareous, stolonitic, fragmented bedding. MINERALISATION: common quartz, carbonate veins, rhodochrosite rimmed silica filled veins common. | 3 |
| 714.70 | 5.70 | 100.0 | | SILTSTONE | SILTSTONE: green - greenish cream, fine grained, laminated, cross bedding, intraformational folding. Additional features include: slumping and microfaulting; minor chlorite alteration; gradational base, with chert finely interbedded; dark grey, quartzose decreasing abundance towards end of unit, accessory pyrite veinlets; bca top to base 82,49,49,62,60 degrees. Bands include - SANDSTONE: thickness 0.50 m., base at 709.50 m., cream; grey, cherty, silicified, indurated, with siltstone finely interbedded; | IMU |

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| FLAG | DEPTH | RECOVERED THICKNESS | % REC | ROCK TYPE | GEOLOGICAL DESCRIPTION OF STRATA | STRAT |
|--------|-------|---------------------|-------|-------------------------------|--|-------|
| | | | | | green - greenish cream increasing abundance towards end of unit. | |
| 720.10 | 5.40 | 100.0 | | SILTSTONE AND GREYWACKE | SILTSTONE: dark grey - black, carbonaceous, becoming coarser towards the end of the unit; B.C.A. = 60 degrees. GREYWACKE finely interbedded; light grey, fine grained. Additional features include: cross bedding, slumpings and microfaulting. MINERALISATION: sparse pyrite blebs finely interbedded; unit becomes more arenaceous silicified to base. Bands include - DOLOMITE: thickness 0.30 m., base at 716.60 m., light grey, sandy, siliceous, stanolitic. | DMU |
| 751.20 | 31.10 | 100.0 | | DOLOMITE | DOLOMITE: light grey, stanolitic, abundant quartz veins near middle of unit. MINERALISATION: minor rhodochrosite intermixed. Bands include - SILTSTONE: thickness 1.80 m., base at 725.70 m., light greenish grey, dolomitic, cherty, minor pyrite as disseminations. Additional features include: minor chlorite alteration; one horizon at 724.5m contains siliceous carbonaceous nodules - pisolitic appearance - associated with common pyrite disseminations. Base of unit contains pinkish angular dolomite clasts - Tripped from dolomite below. Bands include - BRECCIA: thickness 0.10 m., base at 729.40 m., black, quartzose, abundant fragments, angular; fragments include silty carbonaceous and dolomitic clasts. Trace pyrite stringers in dolomite. | 3L |
| 753.00 | 1.80 | 100.0 | | SILTSTONE AND BROKEN GROUND | SILTSTONE: dark grey - light grey, fine to medium grained, turbiditic, disturbed and disrupted bedding; irregular bedding. BROKEN GROUND increasing intensity towards end of unit; black, quartzose, slickensided fracture, rusty, sheared, trace graphite intermixed. | DMU |
| 755.70 | 2.70 | 100.0 | | SILTSTONE, DOLOMITE AND SHALE | SILTSTONE: dark greenish grey - dark grey, reworked, disturbed and disrupted bedding, sharp irregular base. DOLOMITE intermixed; light grey, fine grained, brittle, fractured, trace calcite intermixed. SHALE near base of unit; black, laminated, trace graphite intermixed. Additional features include: minor pyrite finely interbedded. MINERALISATION: sparse pyrite as disseminations, base may be faulted. Lot of quartz veinings. | DMU |
| 759.00 | 3.30 | 100.0 | | SILTSTONE AND DOLOMITE | SILTSTONE: light greenish grey - grey, fine grained, irregular bedding, fine bedding. | DMU |

RENISON LIMITED

| FLAG | DEPTH | RECOVERED THICKNESS | % REC | ROCK TYPE | GEOLOGICAL DESCRIPTION OF STRATA | STRAT |
|--------|-------|---------------------|-------|-----------------------------------|---|-------|
| | | | | | DOLOMITE bands: light grey, fine grained, brittle, fragmented bedding, reworked, trace calcite intermixed, dolomite is broken up and fragmented. | |
| 793.10 | | 34.10 | 100.0 | SILTSTONE AND GREYWACKE | SILTSTONE (60%): red - green, fine bedding, graded bedding. GREYWACKE irregularly interbedded (40%): green, tuffaceous, sandy, cross bedding, strong red colouration appears to be fluid alteration feature rather than original colour. Bca 75-80 degrees. | DMU |
| 794.00 | | 0.90 | 100.0 | ?TUFF | ?TUFF: greenish grey, lithic, sandy, becoming coarser towards the end of the unit, fine bedding, trace calcite veins. Additional features include: agglomeratic near base of unit. | DMU |
| 800.00 | | 6.00 | 100.0 | SILTSTONE, GREYWACKE AND MUDSTONE | SILTSTONE: grey - greenish cream, fine bedding, becoming coarser towards the end of the unit. GREYWACKE: mottled greenish grey, tuffaceous, cross bedding. MUDSTONE: cream grey, massive, bca 60-70 degrees. MINERALISATION: common quartz veins. | DMU |
| 800.10 | | 0.10 | 100.0 | VEIN | VEIN: sheared, abundant calcite, and quartz, minor chlorite. | DMF |
| 819.00 | | 18.90 | 100.0 | QUARTZITE AND SILTSTONE | QUARTZITE: light greenish grey - light grey, massive, banding. SILTSTONE: light yellow - greenish grey, quartzose, fine bedding, bca 60-70 degrees. MINERALISATION: common chlorite veins, minor tourmaline alteration bands near base of unit, common carbonate, quartz veins, minor quartz, topaz, ?fluorite veining near base. | DM |

END OF HOLE at 819.00m.

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| STRAT | FROM (M) | TO (M) | Cut-off | Sn (%) | ANL. Sn (%) | SOL. Sn (%) | Cu (%) | Pb (%) | Zn (%) | As (G/T) | Bi (%) | As (%) | W03 (%) | S (%) | Sb (%) |
|-------|----------|--------|---------|--------|-------------|-------------|--------|--------|--------|----------|--------|--------|---------|-------|--------|
| CCF | 282.00 | 283.00 | | <0.01 | | | <0.01 | <0.01 | <0.01 | | | <0.10 | 0.01 | 0.80 | |
| CCF | | 284.00 | | <0.01 | | | <0.01 | <0.01 | <0.01 | | | <0.10 | 0.01 | 0.90 | |
| CCF | | 285.00 | | <0.01 | | | <0.01 | <0.01 | <0.01 | | | <0.10 | <0.01 | 0.60 | |
| CCF | | 286.00 | | <0.01 | | | <0.01 | <0.01 | <0.01 | | | <0.10 | <0.01 | 0.70 | |
| CCF | | 287.00 | | <0.01 | | | <0.01 | <0.01 | <0.01 | | | <0.10 | 0.01 | 0.60 | |
| CCF | | 288.00 | | <0.01 | | | <0.01 | <0.01 | <0.01 | | | <0.10 | <0.01 | 0.70 | |
| CCF | | 289.00 | | <0.01 | | | 0.02 | <0.01 | <0.01 | | | <0.10 | 0.01 | 0.80 | |
| CCF | | 290.00 | | <0.01 | | | 0.01 | <0.01 | <0.01 | | | <0.10 | 0.01 | 0.90 | |
| CCF | | 291.00 | | <0.01 | | | <0.01 | <0.01 | <0.01 | | | <0.10 | 0.01 | 0.40 | |
| CCF | | 292.00 | | <0.01 | | | <0.01 | <0.01 | <0.01 | | | <0.10 | <0.01 | 0.20 | |
| CCF | | 293.00 | | <0.01 | | | <0.01 | <0.01 | <0.01 | | | <0.10 | 0.01 | 0.30 | |
| CCF | | 294.00 | | <0.01 | | | <0.01 | <0.01 | <0.01 | | | <0.10 | 0.01 | 0.10 | |
| CCF | | 295.00 | | <0.01 | | | 0.01 | <0.01 | <0.01 | | | <0.10 | 0.01 | 0.10 | |
| FED | 385.00 | 386.80 | 0 | <0.01 | | 0.01 | 0.02 | 0.16 | 0.07 | 7. | 0.009 | <0.10 | <0.01 | 0.40 | |
| RRM | 648.00 | 649.00 | | | <0.10 | | | | | | | | | | |
| RRM | | 650.00 | | | <0.10 | | | | | | | | | | |
| RRM | | 651.00 | | | <0.10 | | | | | | | | | | |
| RRM | | 652.00 | | | <0.10 | | | | | | | | | | |
| RRM | | 653.00 | | | <0.10 | | | | | | | | | | |
| RRM | | 654.00 | | | <0.10 | | | | | | | | | | |
| RRM | | 655.00 | | | <0.10 | | | | | | | | | | |
| RRM | | 656.00 | | | <0.10 | | | | | | | | | | |
| RRM | | 657.00 | | | <0.10 | | | | | | | | | | |
| RRM | | 658.00 | | | <0.10 | | | | | | | | | | |
| RRM | | 659.00 | | | <0.10 | | | | | | | | | | |
| RRM | | 660.00 | | | <0.10 | | | | | | | | | | |
| RRM | | 660.40 | | | <0.10 | | | | | | | | | | |
| 2 | 663.20 | 664.00 | | | <0.10 | | | | | | | | | | |
| 2 | | 665.00 | | | <0.10 | | | | | | | | | | |
| 2 | | 666.00 | | | <0.10 | | | | | | | | | | |
| 2 | | 667.00 | | | <0.10 | | | | | | | | | | |
| 2 | | 668.00 | | | <0.10 | | | | | | | | | | |
| RRM | 700.00 | 701.00 | | | <0.10 | | | | | | | | | | |
| 3 | | 702.00 | | | <0.10 | | | | | | | | | | |
| 3 | | 703.00 | | | <0.10 | | | | | | | | | | |
| 3 | | 704.00 | | | <0.10 | | | | | | | | | | |
| 3 | | 705.00 | | | 0.10 | | | | | | | | | | |

050

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| STRAT | FROM (M) | TO (M) | Cutoff | Sn (%) | ANI Sn (%) | SOL Sn (%) | Cu (%) | Pb (%) | Zn (%) | As (G/T) | Bi (%) | As (%) | WO3 (%) | S (%) | Sb (%) |
|-------|----------|--------|--------|--------|------------|------------|--------|--------|--------|----------|--------|--------|---------|-------|--------|
| 3 | | 706.00 | | <0.10 | | | | | | | | | | | |
| 3 | | 707.00 | | <0.10 | | | | | | | | | | | |
| 3 | | 708.00 | | <0.10 | | | | | | | | | | | |
| 3 | | 709.00 | | <0.10 | | | | | | | | | | | |
| DMU | | 710.00 | | <0.10 | | | | | | | | | | | |
| 3L | 720.00 | 721.00 | | <0.10 | | | | | | | | | | | |
| 3L | | 722.00 | | <0.10 | | | | | | | | | | | |
| 3L | | 723.00 | | <0.10 | | | | | | | | | | | |
| 3L | | 724.00 | | <0.10 | | | | | | | | | | | |
| 3L | | 725.00 | | 0.10 | | | | | | | | | | | |
| 3L | | 726.00 | | 0.10 | | | | | | | | | | | |
| 3L | | 727.00 | | <0.10 | | | | | | | | | | | |
| 3L | | 728.00 | | <0.10 | | | | | | | | | | | |
| 3L | | 729.00 | | <0.10 | | | | | | | | | | | |
| 3L | | 730.00 | | <0.10 | | | | | | | | | | | |
| 3L | | 731.00 | | <0.10 | | | | | | | | | | | |
| 3L | | 732.00 | | <0.10 | | | | | | | | | | | |
| 3L | | 733.00 | | <0.10 | | | | | | | | | | | |
| 3L | | 734.00 | | <0.10 | | | | | | | | | | | |

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APPENDIX 4

DUNKLEY FAULT GRID, MAGNETICS SURVEY - DISCUSSION OF METHODS

In order to obtain the most accurate and repeatable magnetic survey a variety of reading positions were tested in the field. In all testing the operator stood facing in the same direction and oriented the sensor toward the north. The following reading positions were investigated:

1. Standing, arm outstretched

Sensor on 2m staff at arm's length, sensor 2m above ground, battery-console, harness on chest.

2. Standing

Sensor on 2m staff on hip of operator, sensor 3m above ground, battery-console, harness on chest.

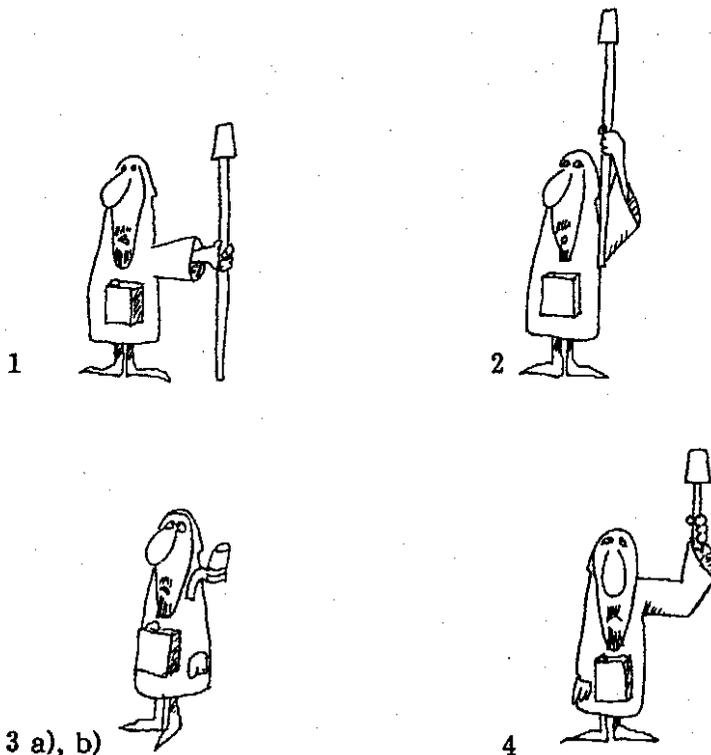
3.a),b) Standing

Sensor in backpack on operator's back, 1.5m above ground, battery-console, harness on chest.

Position 3 was tested first using a) batteries with ferrous metal outer jackets and a second time with b) the ferrous-metal jacket removed. The batteries still had ferrous metal ends. The Eveready 'extra heavy duty' black battery is non-ferrous, as are some other varieties, notably cheap Asian products.

4. Standing, arm in 'stop signal' position

Sensor on 0.3m staff, 2.5m above ground, battery-console, harness on chest.



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The results of these tests are shown in Figures e, f, g and h.

Figure e shows the comparison between methods 1, 3a) and 3b). This demonstrates a dramatic improvement in both signal strength and repeatability from ferrous to non-ferrous batteries used in the backpack configuration and still further improvement in signal strength when removing the sensor from the vicinity of the batteries as in method 1. The repeatability of method 1 is similar if not poorer than method 3b). This may be due to inconsistency of sensor orientation and position relative to the operator.

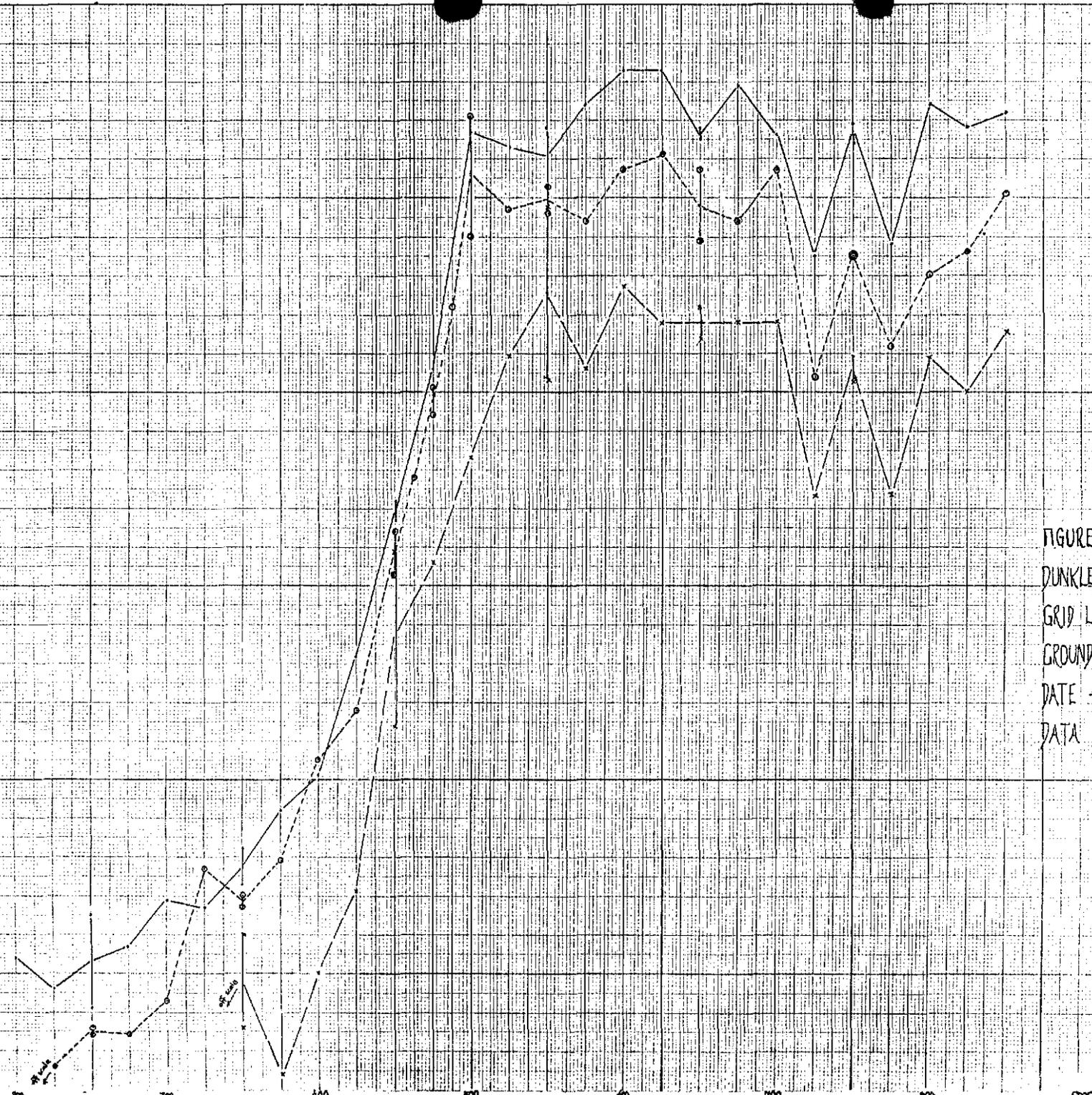
Figure f compares results between method 1 and 2. In both cases the operator adopted strictly consistent orientation of sensor and relative position. The differences are minor but the 3m position appears to smooth the data to some extent, i.e. peaks are lower, troughs are not as deep. This is expected since near surface magnetic noise effects will be reduced with increasing sensor height. The difference between method 1 results in figures e and f, is probably due to the steel capped gumboots worn by the operator on the 19th May 1983.

Figure g shows results of method 4 versus method 1. Method 4 shows a consistently stronger signal. The reason for the difference is unclear. While the increased distance from the battery pack appears to improve the signal strength, figure e, the difference shown between methods 1 and 2, figure f, is negligible compared with that shown here. The difference may be due to base station chart recording inaccuracy or more likely that a set of ferrous metal batteries was used for the method 1 test by mistake. The repeatability of method 4 appears to be ± 2 gammas, figure h., c.f. ± 1 gamma with method 1 and method 2.

In general it appears that the sensor should be at maximum height above ground. The ferrous metal batteries have a dramatic influence on signal strength hence all batteries should be non-ferrous. Steel capped boots appear to have a slight effect in anomalous areas. Consistency of orientation of sensor and position of operator relative to sensor improves repeatability to ± 1 gamma accuracy from ± 5 to >10 gammas.

Base Station: A PPM-3BS was hired from Austral Exploration in Adelaide. The instrument uses a remote sensor connected by 5m lead. The magnetometer has a digital readout and a chart recorder using a touch-sensitive paper. Both read to 1 gamma. Cycle rates between 5 seconds and 5 minutes may be selected. This survey used either 30 seconds or 60 seconds between readings. The chart recorder indicates 10 minute intervals with a tick on the base of the chart.

The base station was located at 15960N, 8975E (R.M.G.) on the left hand side of the Boodecker Ridge Track between lines 2000S and 2200S. The base level at this station was set at 62400 gammas.



○-----○ Backpack; metal battery jackets removed mag 3
 x-----x Backpack; ferrous metal jackets on batteries mag 3
 ----- 2m staff; irregular orientation and position mag 11

 where an error bar is shown, repeat readings were taken
 on return trip along line, and indicates to some degree the
 relative repeatability of the various methods. Operators
 magnetically clean.

FIGURE e)
 DUNKLEY FAULT GRID
 GRID LINE 1000E
 GROUND PROTON MAGNETICS - TEST LINE
 DATE - 18.5.83
 DATA CORRECTED AND REDUCED

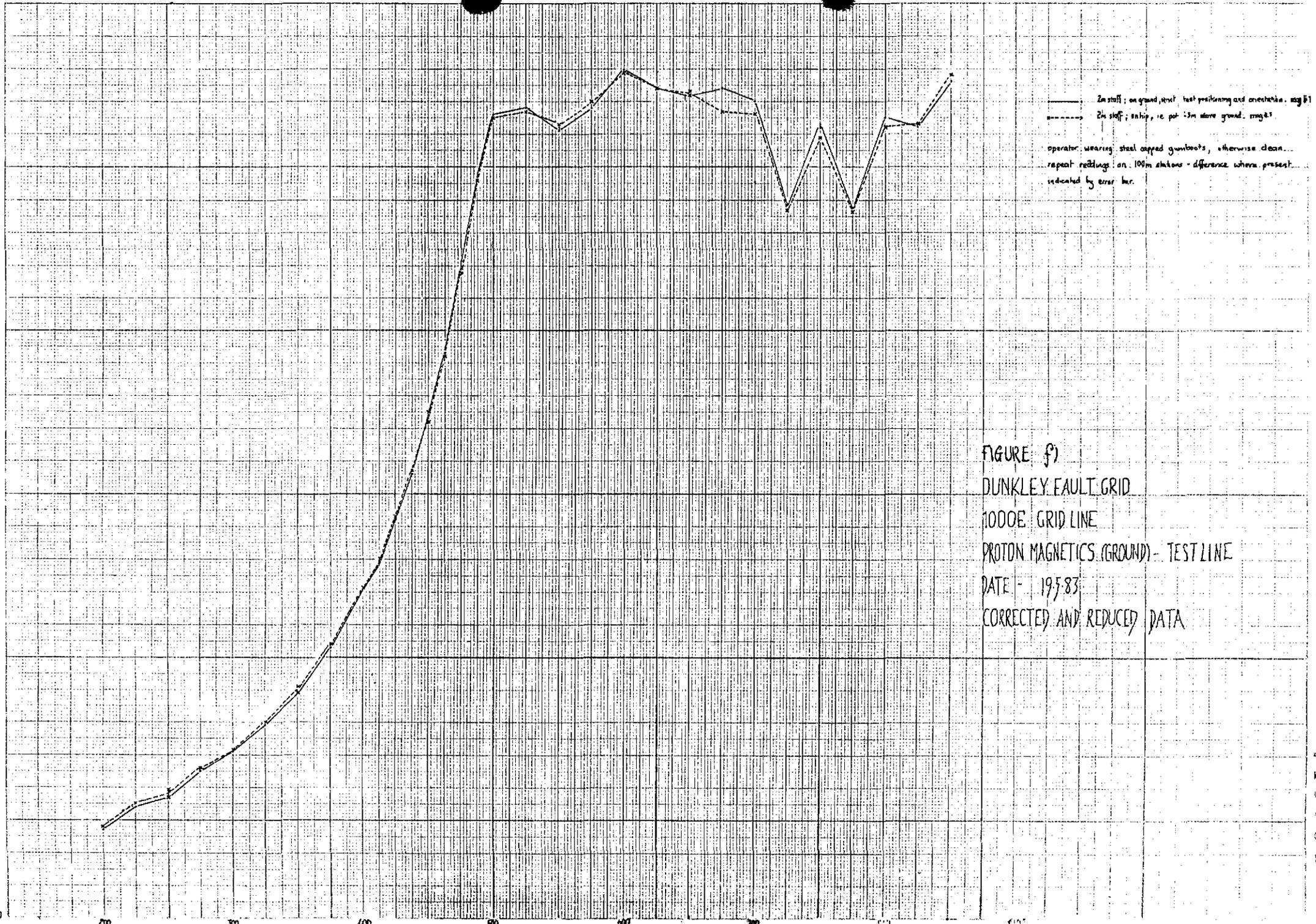
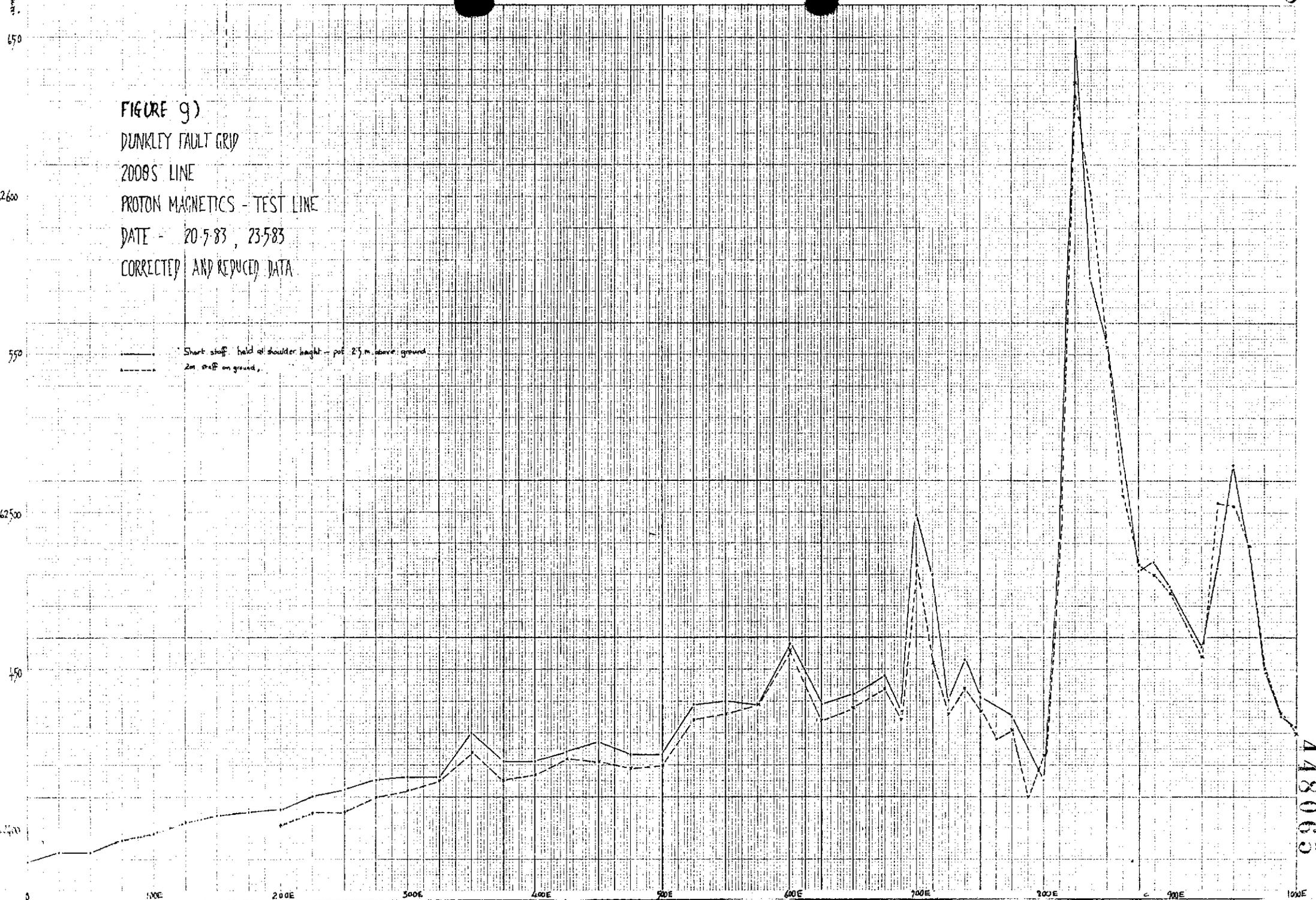


FIGURE f)
 DUNKLEY FAULT GRID
 1000E GRID LINE
 PROTON MAGNETICS (GROUND) - TEST LINE
 DATE - 1978/83
 CORRECTED AND REDUCED DATA

FIGURE 9)
 DUNKLEY FAULT GRIP
 2008S LINE
 PROTON MAGNETICS - TEST LINE
 DATE - 20-5-83, 23-5-83
 CORRECTED AND REDUCED DATA

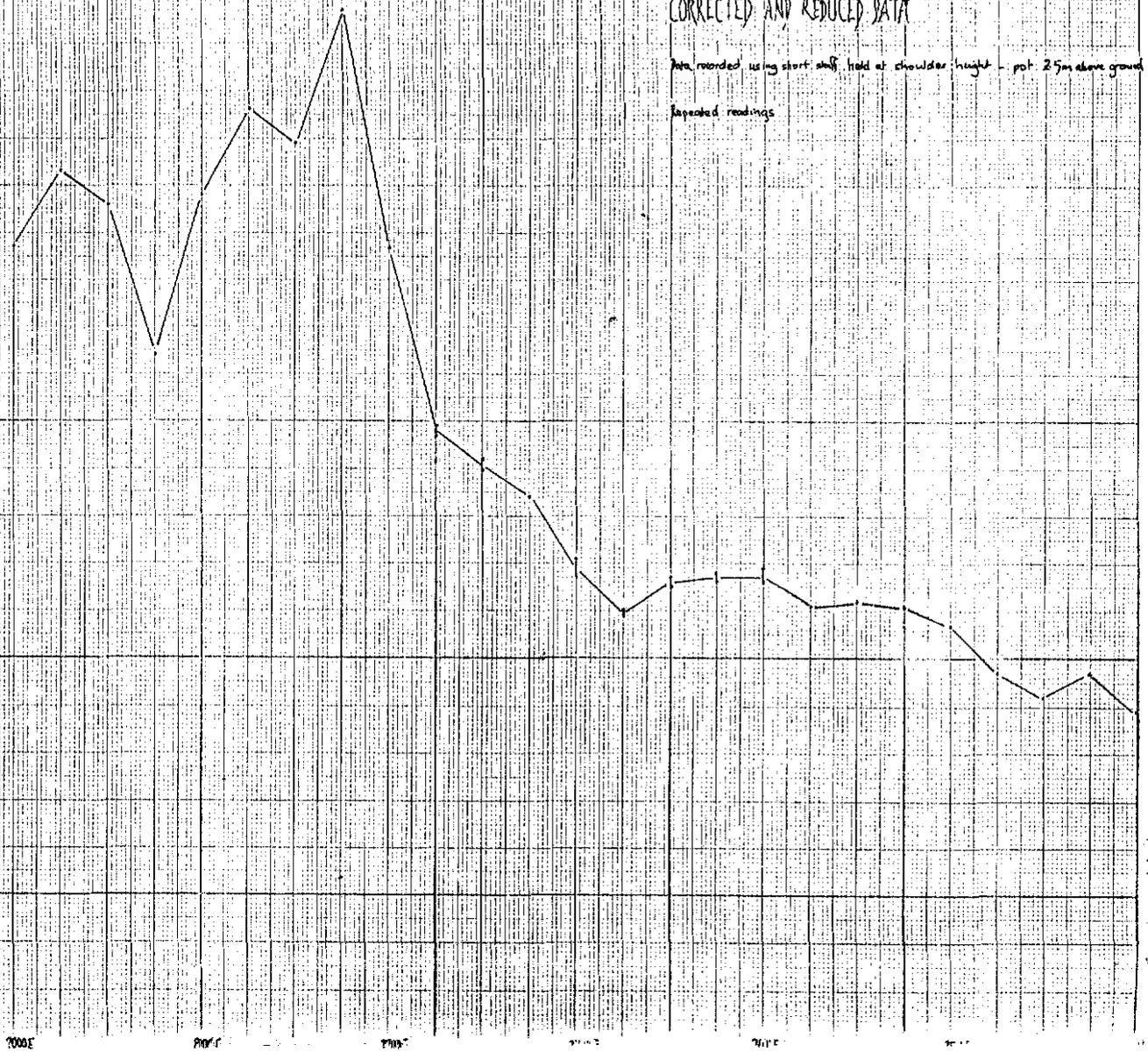
— Short staff held at shoulder height - pole 2.5 m above ground
 - - - 2m staff on ground



448065

FIGURE h)
 DUNKLEY FAULT GRID
 LINE 1400E (CROSSLINE)
 GROUND PROTON MAGNETICS
 DATE 20-5-83
 CORRECTED AND REDUCED DATA

Data recorded using short staff, held at shoulder height - post 2.5m above ground
 Repeated readings



MAGNETICS

057

RENISON LIMITEDAPPENDIX 5DUNKLEY FAULT GRID, GEOCHEMICAL SAMPLING - TEST SAMPLES

The bedrock samples collected over the grid consisted mainly of clays and fragments of weathered rock. In some locations the bedrock was more than 6m below surface. In other locations sample retrieved was very difficult and only a small amount was obtained. The question arose early in the program as to whether it was necessary to assay only actual rock fragments. If the values obtained from rock fragments were the same as that for the associated clays from which the rock was sieved, then separation would not be necessary. The clays were assumed to be representative of the C-horizon. If the assays for clays was comparable with that of the rock fragments then it would not be necessary to sample the bedrock especially where time and cost to recover the deeper samples appeared to be unacceptable. The samples were taken from the first line completed which unfortunately was the rather barren 000S line.

| | | Sn | As | WO ₃ | Cu | Pb | Zn | Bi |
|-------|------|-----|-----|-----------------|----|-----|----|-----|
| 200E | soil | 10 | <10 | 20 | 15 | 20 | 10 | <10 |
| 200E | rock | 10 | <10 | 10 | 10 | 10 | 10 | <10 |
| 550E | soil | <10 | <10 | 10 | <5 | <10 | 5 | <10 |
| 550E | rock | 10 | <10 | 10 | <5 | <10 | 5 | <10 |
| 1000E | soil | 10 | <10 | 20 | 5 | <10 | 5 | <10 |
| 1000E | rock | 10 | <10 | 20 | <5 | <10 | 5 | <10 |
| 1400E | soil | <10 | <10 | 10 | 10 | 10 | 5 | <10 |
| 1400E | rock | 10 | <10 | 10 | 10 | 20 | 5 | 10 |
| 1800E | soil | 10 | <10 | 30 | 5 | <10 | 5 | <10 |
| 1800E | rock | <10 | <10 | 20 | 5 | <10 | 5 | <10 |
| 2200E | soil | <10 | <10 | 20 | 5 | <10 | 5 | <10 |
| 2200E | rock | <10 | <10 | 20 | 5 | <10 | 5 | <10 |

Because the assays were at the lower end of the detection limit, the results were inconclusive. However the values for soils are equal to the corresponding rock chip value within the accuracy of method (± 5 ppm at these levels). Further testwork is recommended in more anomalous areas to compare reliability of B, C and bedrock samples.

As with all the samples collected the test specimens were pulverised at the Renison sample preparation laboratory after drying. The pulverising ring used is set aside for geochemical samples and should not have introduced contamination from other mine samples being processed. The samples were then assayed at the Renison assay laboratory. Contamination from an unknown source appears to be influencing the Cu, and to a lesser degree WO₃ and Sn on line 1400S. Resampling of parts of this line is planned as part of the follow-up work. Lines 1200S and 1400S were sampled after a short sampling program on the Renison tailings dam. All equipment was thoroughly washed after the tailings dam work.

RENISON LIMITEDAPPENDIX 6DUNKLEY FAULT GRID, GEOLOGICAL MAPPING - SAMPLE LOCALITY,
DESCRIPTION, ASSAYS

448069

| Sample No. | Locality | | Description | Sn | As | WO ₃ | Cu | Pb | Zn | Ag | Bi | Ni | Sb | Co | Remarks |
|------------|---------------|--------|---|-----|-----|-----------------|-----|-----|------|----|----|-----|-----|----|------------------------|
| * C1001 | 15600N | 9000E | Hematitic gossanous encrustation | 10 | <10 | 30 | <10 | 80 | 30 | 3 | 80 | 30 | | | |
| C1003 | 200S | 2275E | Quartzite | 80 | 70 | 10 | 25 | 30 | 10 | | | | | | |
| C1004 | 200S | 2400E | Shale | 10 | 10 | 10 | 20 | 130 | 35 | | | | | | |
| * C1008 | 16300N | 11200E | Hematitic gossanous encrustation | <10 | <10 | <10 | 15 | 70 | 100 | 2 | 80 | 50 | | | |
| * C1009 | 16100N | 11200E | " " " | <10 | 20 | <10 | 100 | 460 | 860 | 2 | 70 | 60 | | | |
| C1011 | 200S | 1550E | Very weathered clayey rock | 130 | <10 | 20 | 380 | 120 | 120 | | 20 | | | | |
| * C1014 | 15800N | 9000E | Hematitic gossanous encrustation | <10 | <10 | 20 | <5 | 70 | 95 | | 50 | | | | |
| C1016 | 400S | 2330E | ?Hornfelsed dark grey micaceous siliceous siltstone | | | | | | | | | | | | |
| C1020 | 600S | 1420E | Dark grey graphitic and pyritic shale | | | | | | | | | | | | |
| C1022 | 800S | 1890E | Dark grey ?hornfelsed pyritic carbonaceous shale | | | | | | | | | | | | ? Float |
| C1025A | 1200S | 1450E | Siltstone | 10 | 20 | 10 | 260 | 50 | 150 | 2 | 30 | 100 | | | |
| C1025B | 1200S | 1450E | Hematitic gossanous encrustation | <10 | <10 | <10 | 260 | 50 | 50 | 3 | 70 | 50 | | | |
| C1026 | 1400S | 770E | Siltstone, minor pyrite | <10 | 20 | <10 | 190 | 130 | 140 | 2 | 30 | 80 | | | |
| C1027 | 000S | 150W | Schistose greenish-grey micaceous siltstone | | | | | | | | | | | | |
| C1028 | 170S | 040W | Black graphitic mud | | | | 30 | 220 | 1450 | <1 | 10 | 100 | 30 | 50 | |
| C1030 | 1000S | 2560E | Hematitic gossanous encrustation | | | | 20 | 40 | 105 | 2 | 10 | 50 | 200 | 90 | |
| C1034 | 025S | 1400E | Black contorted sheared quartzose ?fault breccia | 30 | 40 | 10 | 160 | 90 | 160 | 1 | <5 | | <20 | | Mo = 10 ppm, Au = <0.1 |
| C1035 | BL955 100S | 1600E | Sheared graphitic quartzose graywacke | | | | | | | | | | | | |
| * C1038B | 17700N | 11930E | Hematitic gossanous encrustation | <10 | <10 | <10 | 5 | <10 | 1680 | <1 | <5 | | <20 | | Mo = 10 ppm, Au = <0.1 |

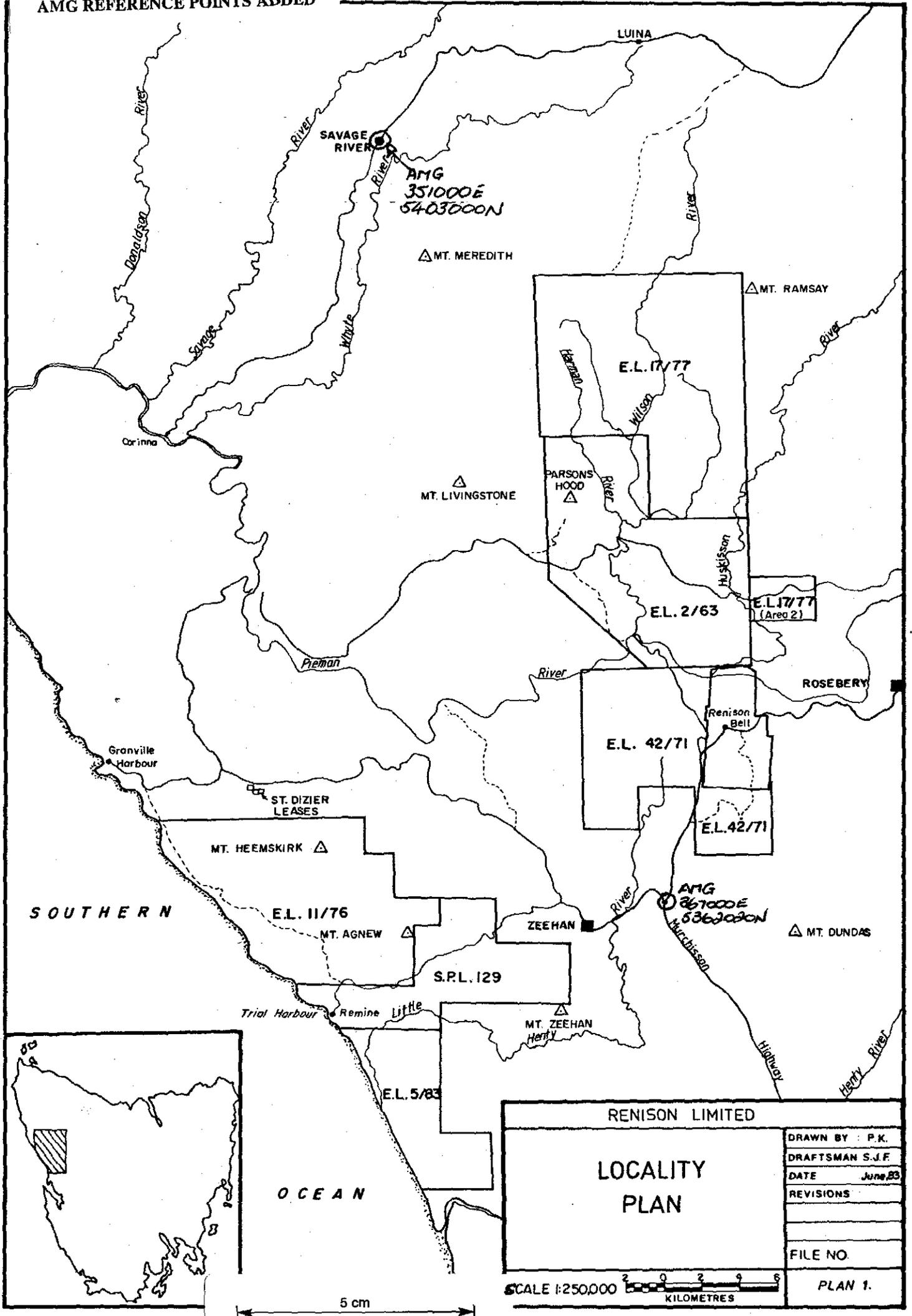
* Samples from outside grid area are located using Kenyon Mine Grid coordinates.
All other samples located with respect to the local grid position.

RENISON LIMITED

| LINE | EASTING | Sb | Cu | Ni | Ag |
|-------|---------|-----|-----|-----|----|
| 200S | 400E | 205 | 35 | 75 | 1 |
| | 450E | 135 | 35 | 80 | 2 |
| | 1650E | 70 | 80 | 135 | 1 |
| 400S | 100E | 115 | 40 | 65 | 1 |
| | 450E | 65 | 30 | 40 | 1 |
| | 500E | 550 | 40 | 55 | 2 |
| 600S | 400E | 240 | 35 | 50 | 2 |
| | 450E | 35 | 20 | 35 | <1 |
| | 900E | 115 | 90 | 170 | 1 |
| 800S | 250E | 65 | 45 | 95 | <1 |
| | 300E | 45 | 30 | 60 | 1 |
| | 2100E | 140 | 175 | 45 | 1 |
| | 2150E | 150 | 65 | 60 | 1 |
| | 2200E | 200 | 50 | 35 | 1 |
| | 2250E | 140 | 120 | 175 | 1 |
| | 2450E | 100 | 30 | 30 | 1 |
| | 2500E | 120 | 25 | 30 | 1 |
| | 2800E | 130 | 70 | 105 | 3 |
| 1000S | 300E | 50 | 15 | 30 | 1 |
| | 800E | 165 | 135 | 240 | 2 |
| 1200S | 300E | 35 | 15 | 45 | 1 |
| | 750E | 125 | 85 | 140 | 1 |
| | 1750E | 230 | 105 | 105 | 2 |
| 1400S | 200E | 10 | 20 | <10 | |
| | 300E | 30 | 30 | 20 | |
| | 350E | 90 | 20 | 45 | 1 |
| | 700E | 80 | 50 | 60 | |
| | 750E | 110 | 60 | 80 | |
| | 800E | 100 | 60 | 130 | |
| | 850E | 40 | 40 | 30 | |
| | 900E | 40 | 40 | 30 | |
| | 1000E | 470 | 60 | 200 | |
| | 1300E | 100 | 50 | 60 | |
| | 1450E | 120 | 40 | 40 | |
| | 1500E | 30 | 50 | 70 | |
| | 1650E | 120 | 30 | 80 | |
| | 1700E | 40 | 50 | 90 | |
| | 1800E | 200 | 60 | 30 | |
| 2000E | 50 | 50 | 30 | | |
| 2150E | 40 | 50 | 20 | | |
| 2200E | 20 | 50 | 30 | | |
| 2200S | 100E | 115 | 20 | 40 | 1 |
| | 500E | 55 | 30 | 60 | <1 |
| | 1850E | 120 | 70 | 130 | 1 |

061

AMG REFERENCE POINTS ADDED



SCALE 1:250,000  KILOMETRES

5 cm



KEY

| | |
|--|------------------------------|
| | Inferred Fault |
| | Definite Fault |
| | Inferred Geological Boundary |
| | Definite Geological Boundary |
| | Traverse Line |
| | Diamond Drill Hole |

SEDIMENTS

| | |
|--|--------------------------|
| | Silurian / Devonian |
| | Middle to Upper Cambrian |
| | Lower Middle Cambrian |
| | Lower Cambrian |
| | Devonian Group |
| | Crinoid Group |

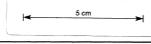
LEGEND

| | |
|--|------------------------|
| | Dreadought Hill Member |
| | N° 1 Horizon |
| | Red Rock Member |
| | N° 2 Horizon |
| | Reuben Bell Member |
| | N° 3 Horizon |
| | Dalshill Member |

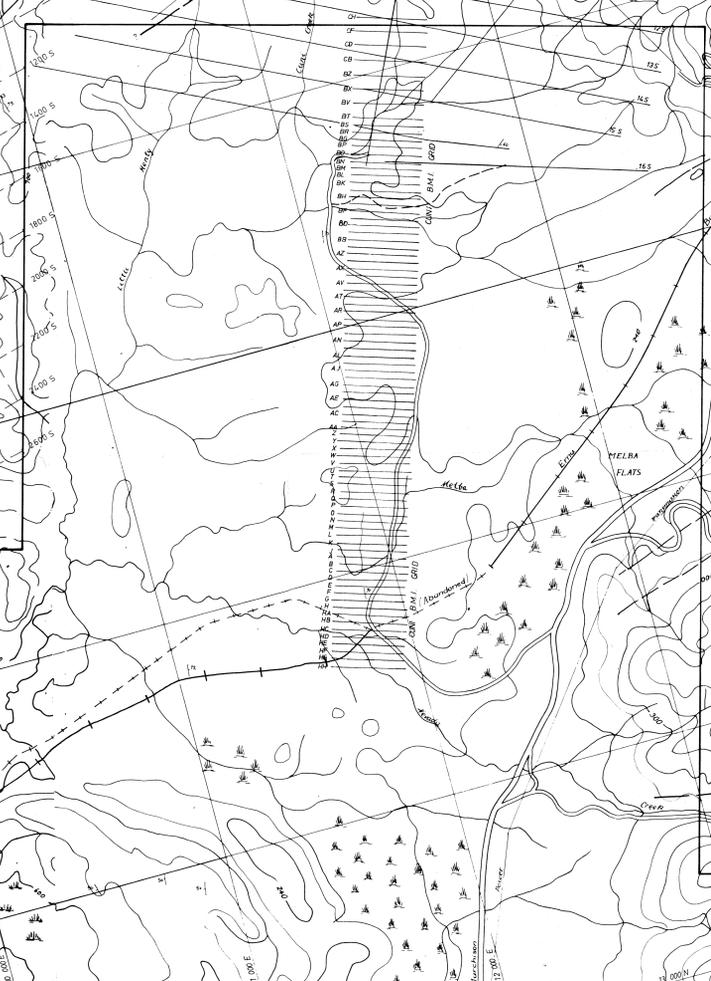
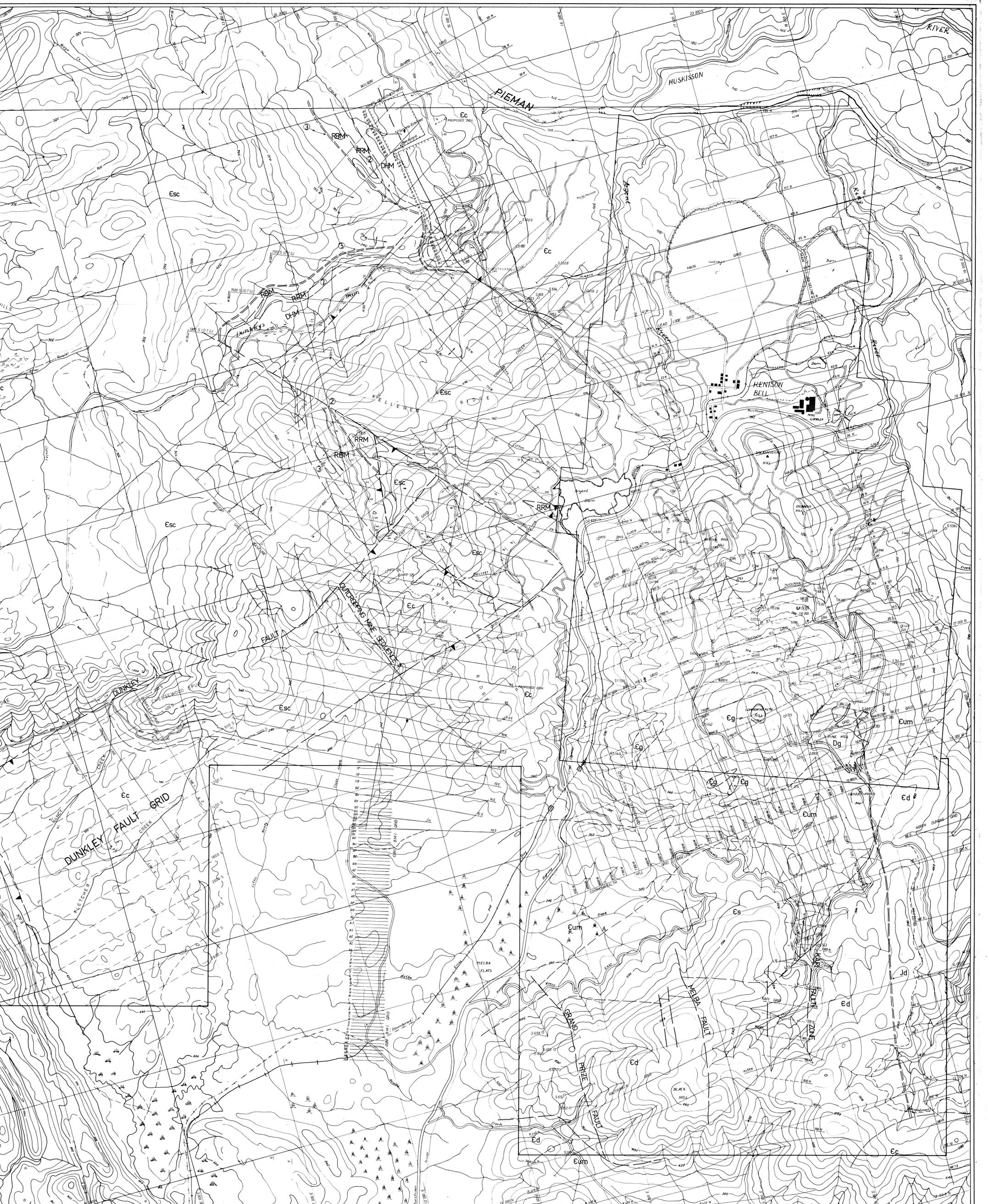
IGNEOUS ROCKS

| | |
|--|---------------------------|
| | Jurassic Diorite |
| | Devonian Granite |
| | Post Middle Cambrian |
| | Mid and post mid Cambrian |
| | Cambrian Gabbro |

Lower Cambrian
Reuben Mine
Sequence



GEOL
DRAU
DATE
REVISE



KEY

- Inferred Fault
- Definite Fault
- Inferred Geological Boundary
- Definite Geological Boundary
- Traverse Line
- Diamond Drill Hole

SEDIMENTS

- Silurian / Devonian
- Middle to Upper Cambrian Dundas Group
- Lower Middle Cambrian Junction Creek Formation
- Renison Bell Member
- Success Creek Group

LEGEND

- Draughton Hill Member
- M¹ Horizon
- Red Rock Member
- M² Horizon
- Renison Bell Member
- M³ Horizon
- Dalrath Member

IGNEOUS ROCKS

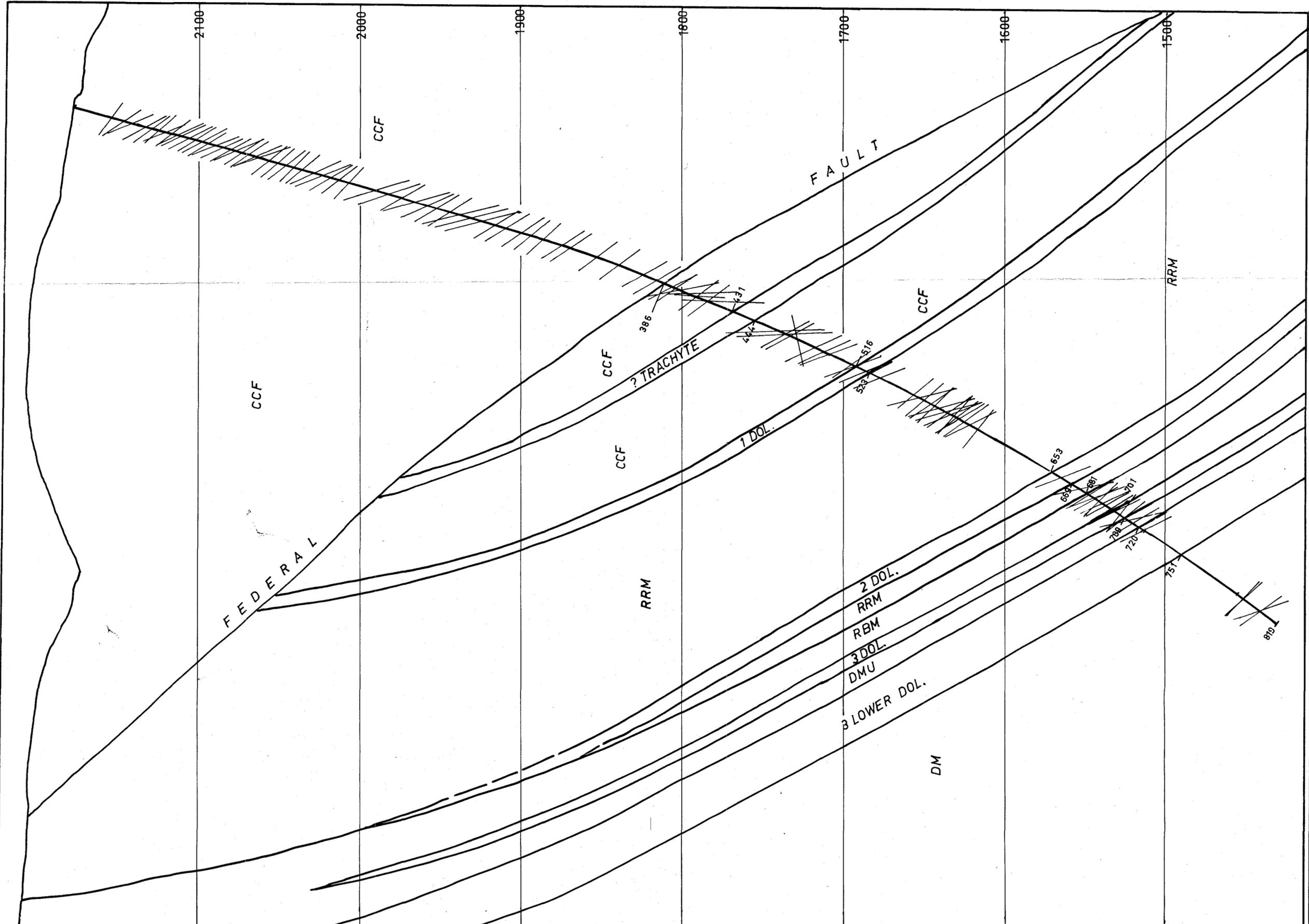
- Jurassic Dalenite
- Devonian Granitoid
- Post Middle Cambrian Mafic Sillites
- Mid and post mid Cambrian Ultramafic Complex
- Cambrian Gabbro

RENISON LIMITED R4-2106

INTERPRETATIVE GEOLOGY

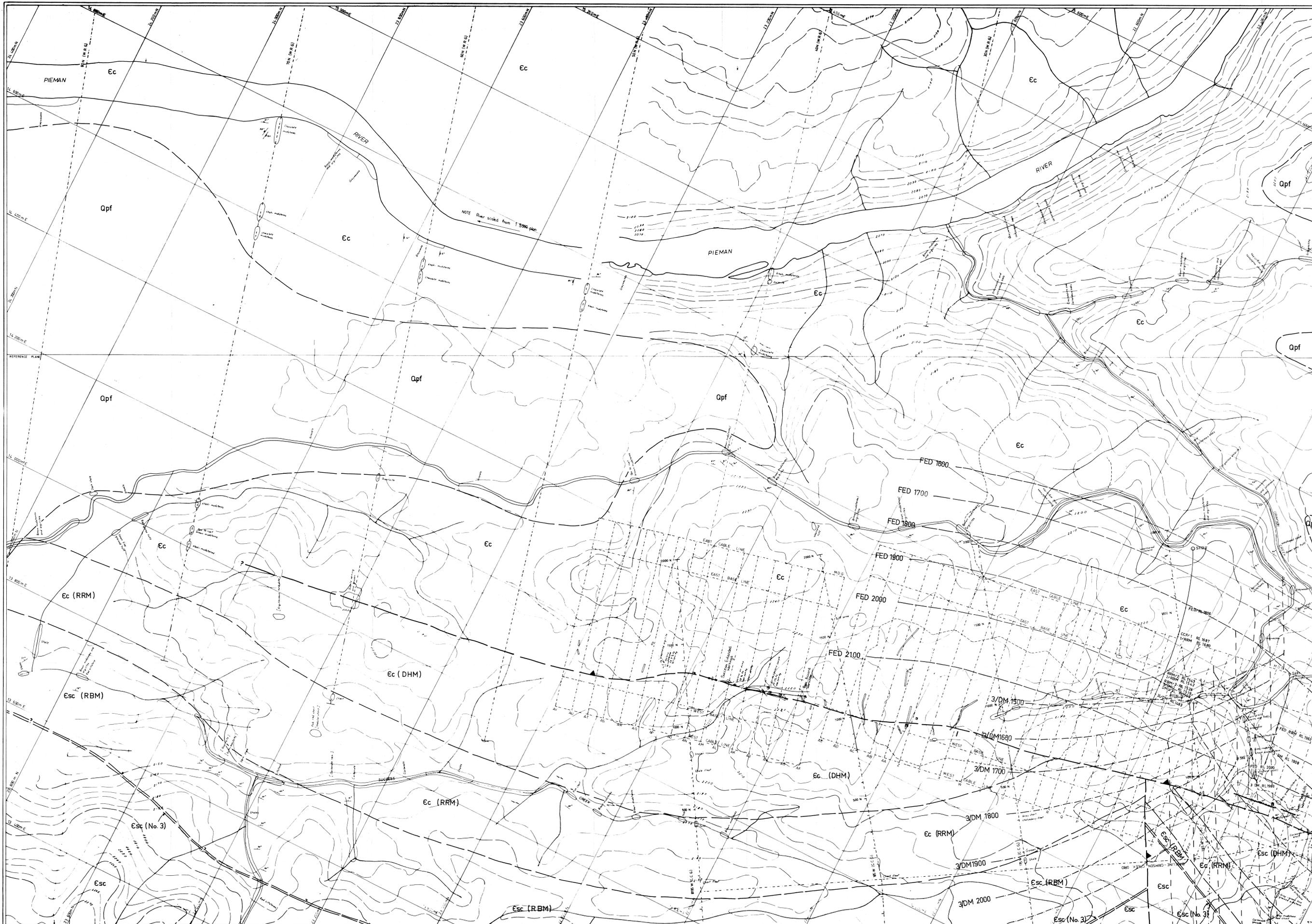
E.L. 42/71 062

GEOLOGIST : P.R.S. SCALE 1:100,000 METRES
 DRAUGHTSMAN : E.V. 200 0 200 400
 DATE : JANUARY 1983
 REVISIONS : _____ DRAWING No. PLAN 2



| | | |
|---|--------------------------------|---------|
| RENISON LIMITED | | 84-2106 |
| SECTION THROUGH DDH S 1134 (LOOKING NORTH) 063 | | |
| GEOLOGIST : DJK | SCALE 1:2000 METRES 0 40 80 | |
| DRAUGHTSMAN : | | |
| DATE : | DRAWING No. PLAN 3. | |
| REVISIONS : | | |

5 cm



- LEGEND**
- Qpf Pleistocene fluvioglaciols
 - LOWER - MIDDLE CAMBRIAN**
 - Ec Crimson Creek Formation undifferentiated
 - Ec(DHM) Dredgought Hill Member pyroclastics and sediments
 - Ec(RRM) Red Rock Member cherts, pyroclastics and dolomites
 - Esc Success Creek Group undifferentiated
 - Esc(RBM) Renison Belt Member quartzites and siltstones
 - Esc(N-3) No. 3 Horizon dolomite
 - Esc(DM) Dolcoath Member quartzites and siltstones

- GEOLOGICAL KEY**
- Strike and dip of bedding
 - Strike dip not determined
 - Vertical bedding
 - Strike and dip of jointing
 - Strike and dip of shearing
 - Fault
 - Mine
 - Plunge of fold axis
 - Diamond drill hole
 - Pathological description
 - Outcrop
 - Adit
 - Surface trench
 - Shaft

448074

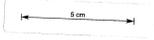
RENISON LIMITED 84-2106

S14 064
INTERPRETATIVE GEOLOGY AND

PHOTODIAGRAMMETRIC PLOTTING BY H.E.C. 374

TRaverse LINE SYSTEMS
 WRG Wilson River Grid Established by Adelaide 1971
 C.C.S. Crimson Creek Grid Originally established by Geoplot 1966
 Recd. by Renison 1993
 M.D.G. Mines Department Grid Established 1954

LEGEND
 ROAD



- LEGEND**
- Qpf Pleistocene fluvio-glacials
 - LOWER - MIDDLE CAMBRIAN
 - Ecc Crimon Creek Formation undifferentiated
 - Ecc(DHM) Dronought Hill Member siltstones and dolomites
 - Ecc(RRM) Red Rock Member cherts, siltstones and dolomites
 - Ecc Success Creek Group undifferentiated
 - Ecc(RBM) Renison Bell Member quartzites and siltstones
 - Ecc(No.3) No. 3 Horizon dolomite
 - Ecc(DM) Dalsooth Member quartzites and siltstones

- GEOLOGICAL KEY**
- Strike and dip of bedding
 - Strike dip not determined
 - Vertical bedding
 - Strike and dip of jointing
 - Strike and dip of shearing
 - Fault
 - Mine
 - Plunge of fold axis
 - Diamond drill hole
 - Penetration description
 - Outcrop
 - Adit
 - Surface trench
 - Shaft

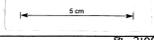
PHOTOGRAMMETRIC PLOTTING BY H.E.C. 87%
 PHOTOGRAPHY BY LANDS DEPT 87%

TRAVERSE LINES
 Surveyed by Western Survey Department of South Australia to a survey station
 Unlocated

TRAVERSE LINE SYSTEMS
 Hudson River Grid Established by Adelaide 1971
 Crimon Creek Grid Originally Established by Compton 1966
 M.D.G. Mines Department Grid Established 1954

LEGEND
 ROAD
 TRACK

448074

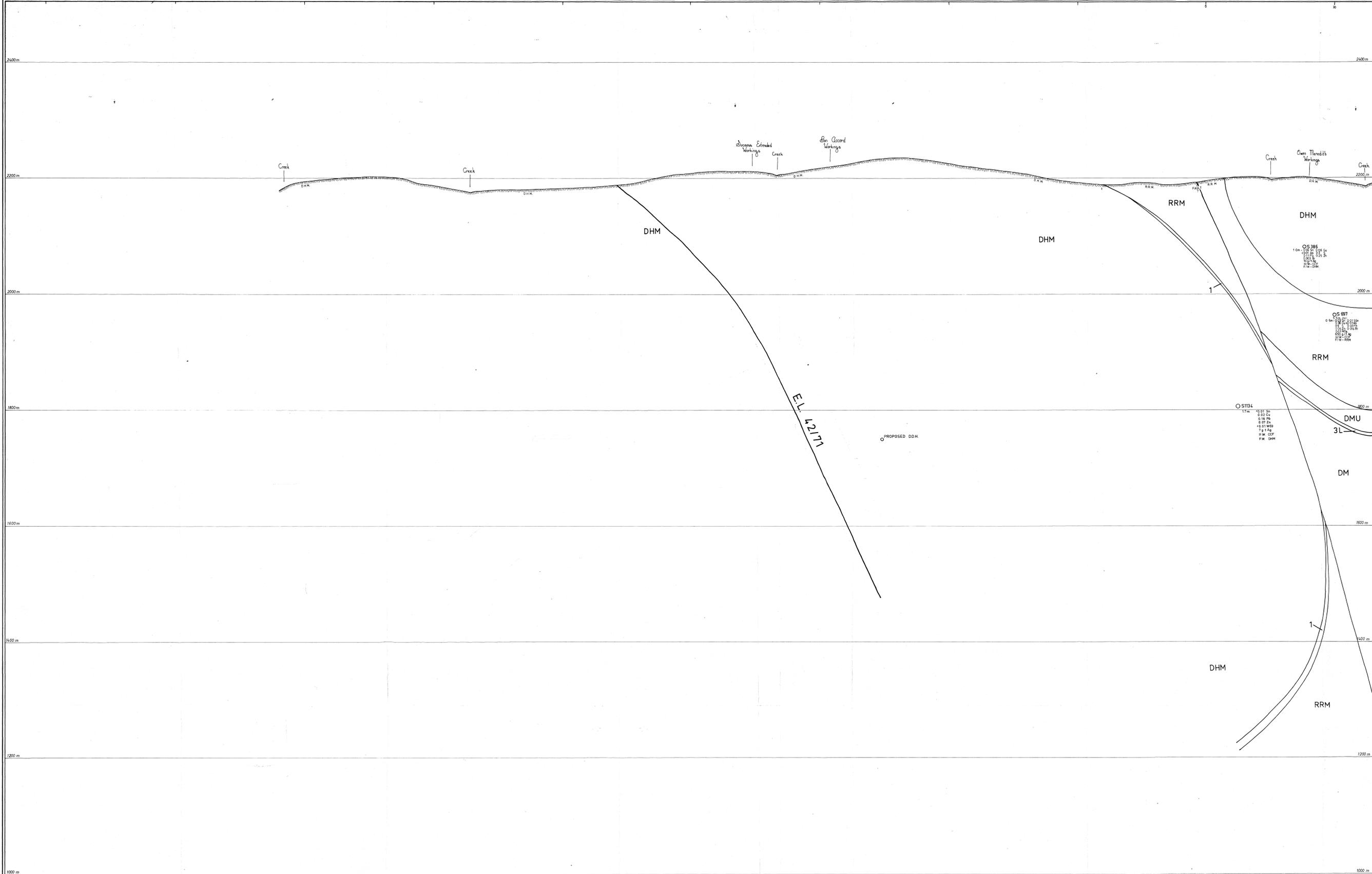


RENISON LIMITED 84-2106

S14 064
**INTERPRETATIVE GEOLOGY AND
 STRUCTURE CONTOUR PLAN**

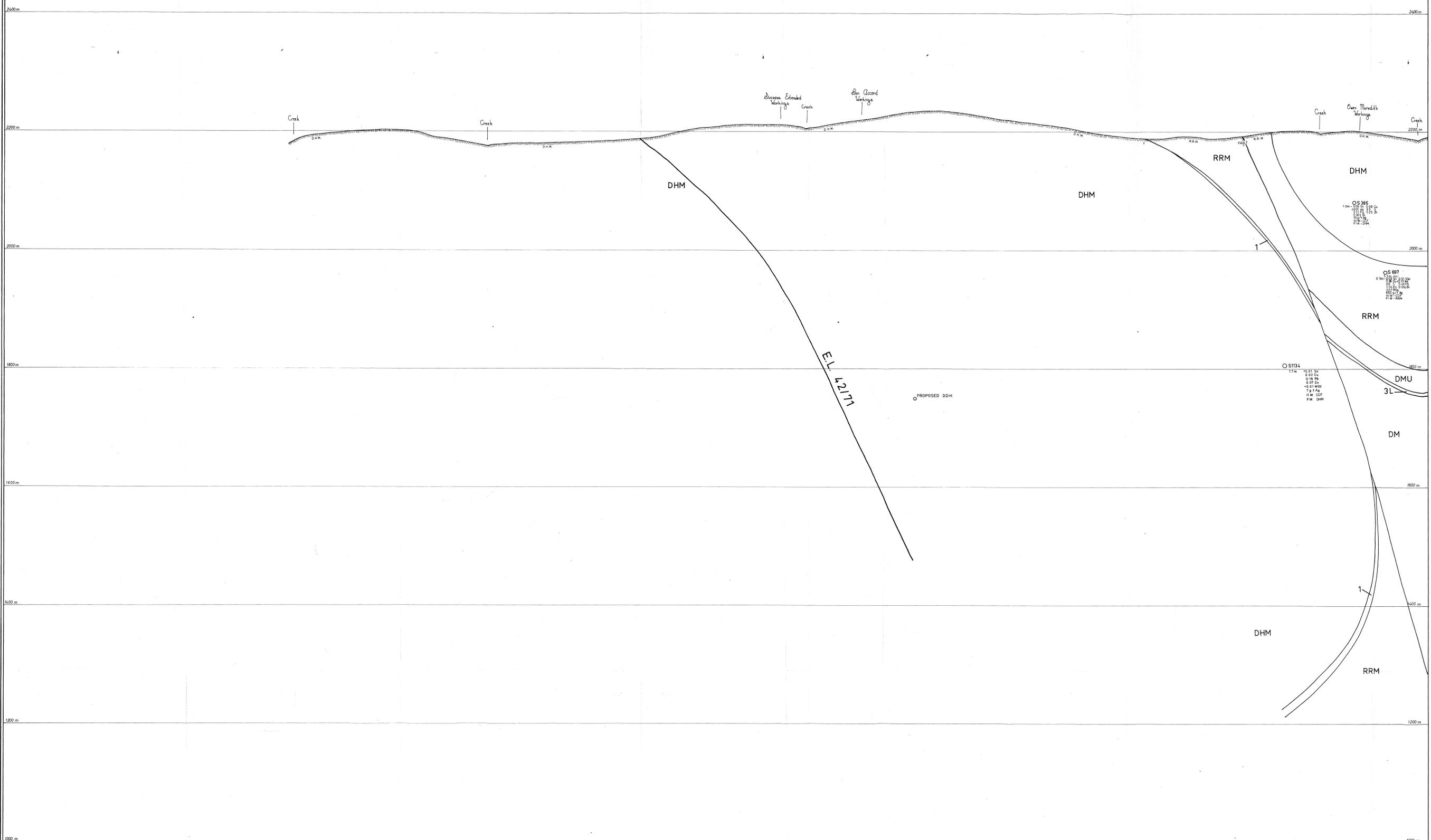
PREPARED BY: P. Stephenson
 DRAWN BY: J. Matthews
 DATE: Oct. 1981
 REVISIONS: DRAWING No. PLAN 4.

084



448075





448075
50m

| | | |
|-------------------------|---------------------|---------|
| RENISON LIMITED | | 24-2106 |
| LONGITUDINAL PROJECTION | | 065 |
| FEDERAL STRUCTURE | | |
| GEOLOGIST : | SCALE 1:2000 METRES | |
| DRAUGHTSMAN : | 0 20 40 60 | |
| DATE : | | |
| REVISIONS : | DRAWING No. PLAN 5. | |



NB. Dunkley Grid position based on aerial photographs and single grid peg at 1600S / 1480E DFG.
 R.T.Z. Grid positioned from open file report only.



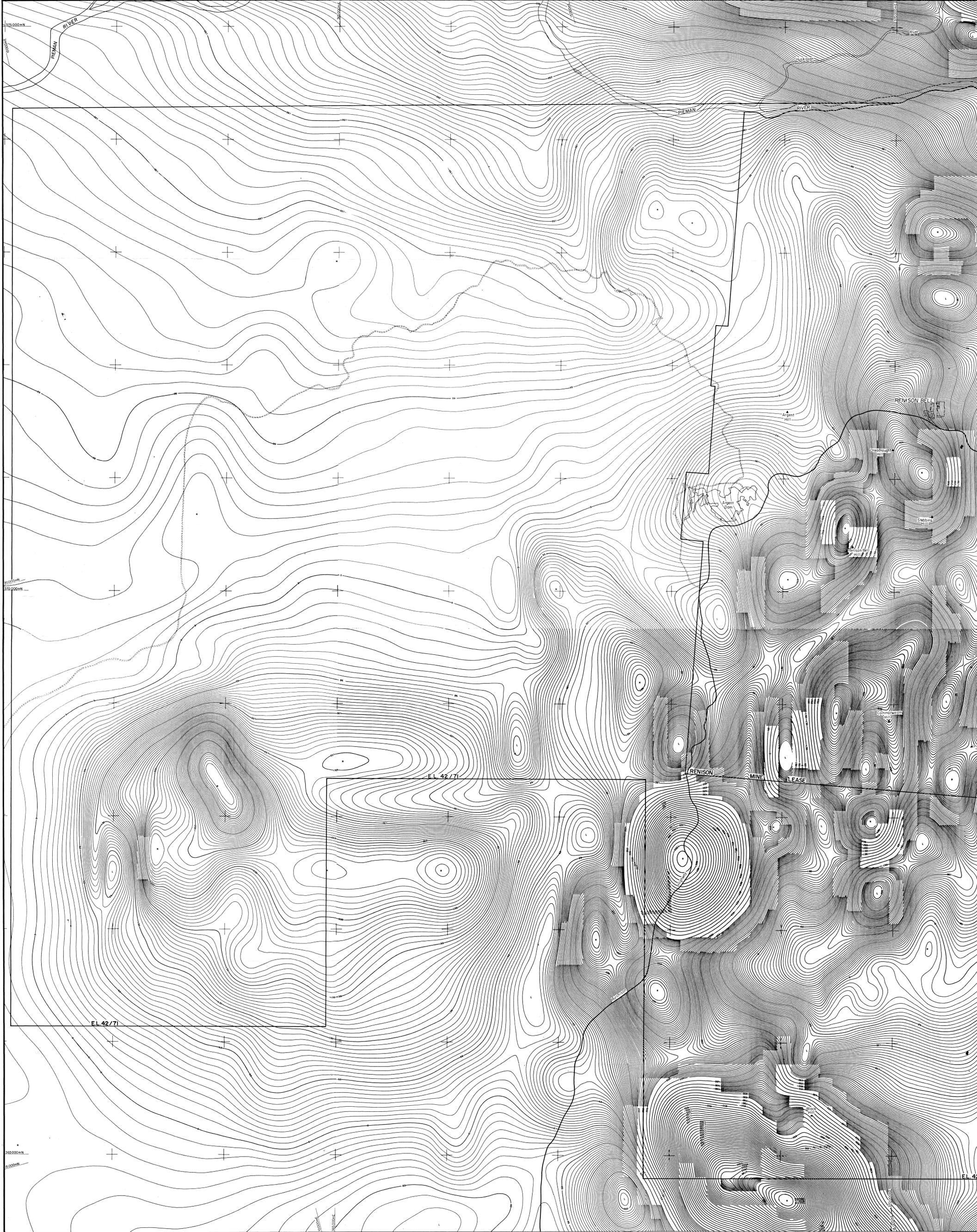
448076



RENISON LIMITED 84-2106
 ZEEHAN B3/2 056
 FACT GEOLOGY

GEOLOGIST DJK SCALE 1:5000 METRES
 DRAUGHTSMAN DATE NOV 1983
 REVISIONS DRAWING No. PLAN 6.

- | | | | | | |
|------------------------------|---------------------------|-----------------|----------------------------------|---|------------------------------------|
| BEDDING | CLEAVAGE | JOINTING | FAULTING | LINEAMENTS | CULTURE |
| 57 strike and dip of bedding | 67 measured | 92 showing dip | — showing normal downthrown side | — photo-interpreted (accuracy of location ±50m.) | — four-wheel drive track |
| • locality of outcrop | — coincident with bedding | — vertical | — generation of deformation | — flagged (f-cut) line showing tape colour red yellow | — 'shoe track' |
| | | | | | — shallow workings - no production |



375 000mN
370 000mN
365 000mN
360 000mN
355 000mN
350 000mN

EL. 42/71

EL. 42/71

EL. 42/71

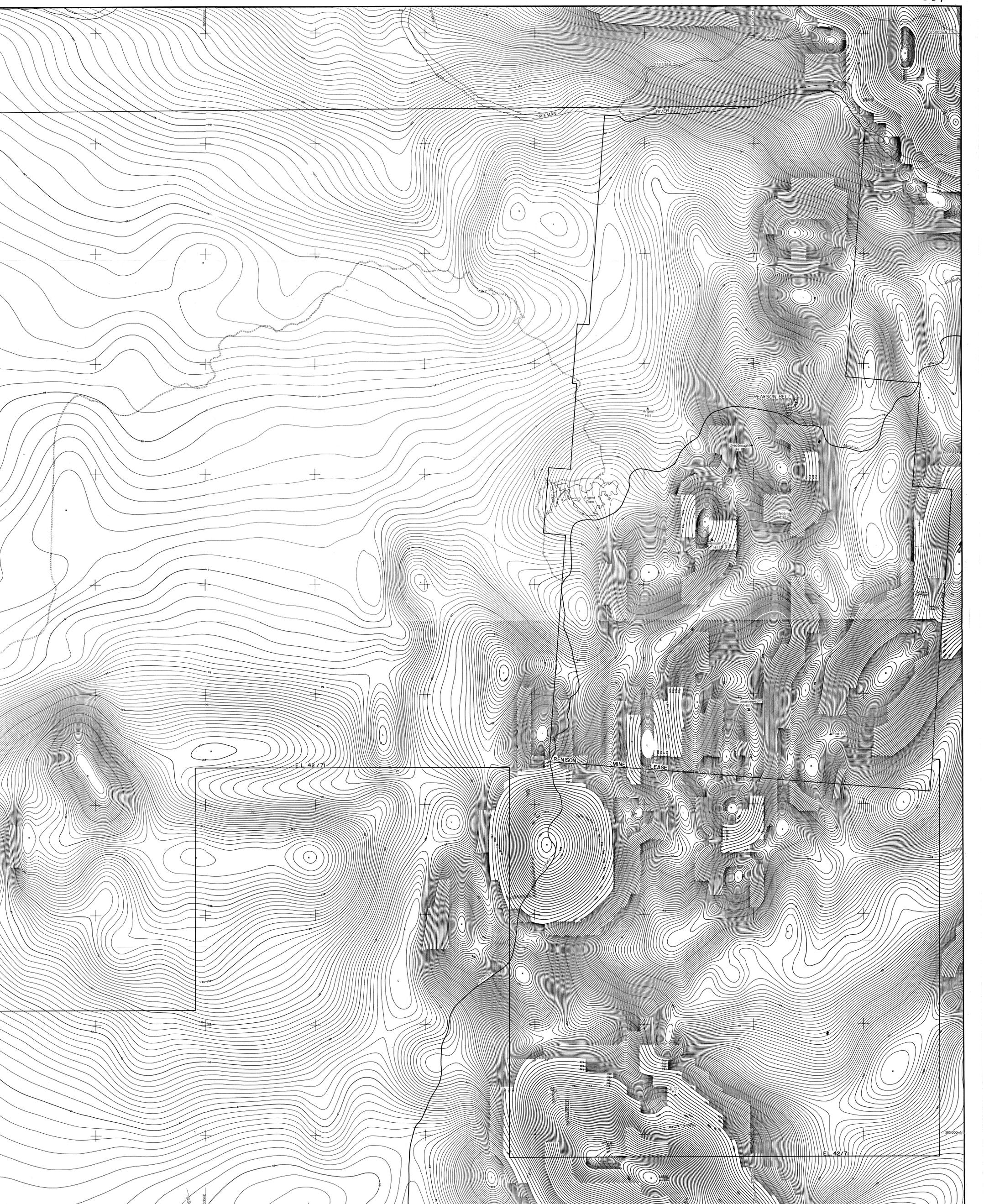
Notes:
Survey flown for the Tas. Mines Dept
by Geos in May 1988
Nominal flight line separation: 500m.
Mean sensor height: 135m.
Residual magnetic field after
subtracting the International
Geomagnetic Reference Field
& 5 point filter has been applied
to the data.
Contour interval is 5m

448077

5 cm

REF. RN/M685/05

AEI
GEOLOGIST
DRAFTSMAN
DATE
REVISIONS



Notes:
 Survey flown for the Tas. Mines Dept
 by Geon in May 1988
 Nominal flight line separation: 500m.
 Mean sensor height: 150m.
 Contour interval is 5m

Residual magnetic field after
 subtracting the International
 Geomagnetic Reference Field
 a 3 km filter has been applied
 to the data.
 Contour interval is 5m

448077

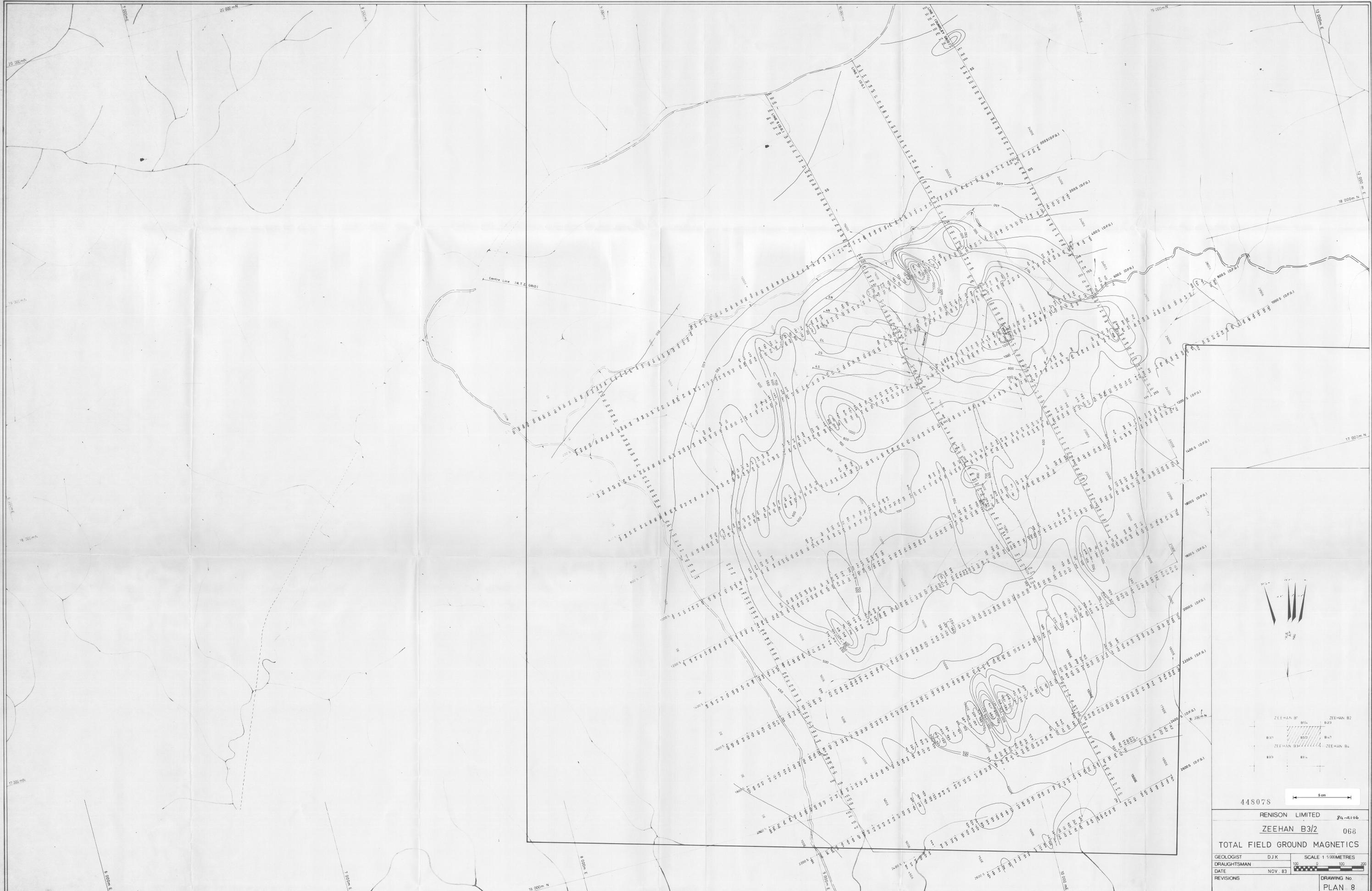
RENISON LIMITED 74-21 06

E.L.42/71 & R.M.L. 067

AEROMAGNETIC CONTOURS

| | | | |
|-----------|----------|-------------|----------------|
| GEOLOGIST | J.R.B. | SCALE | 1:10000 Metres |
| DRAFTSMAN | T.G.D.S. | 0 200 400 | |
| DATE | AUG 1983 | DRAWING No. | |
| REVISIONS | | PLAN 7 | |

REF. RN/MGSS/05 9cm



448078

RENISON LIMITED *Pa-2106*

ZEEHAN B3/2 068

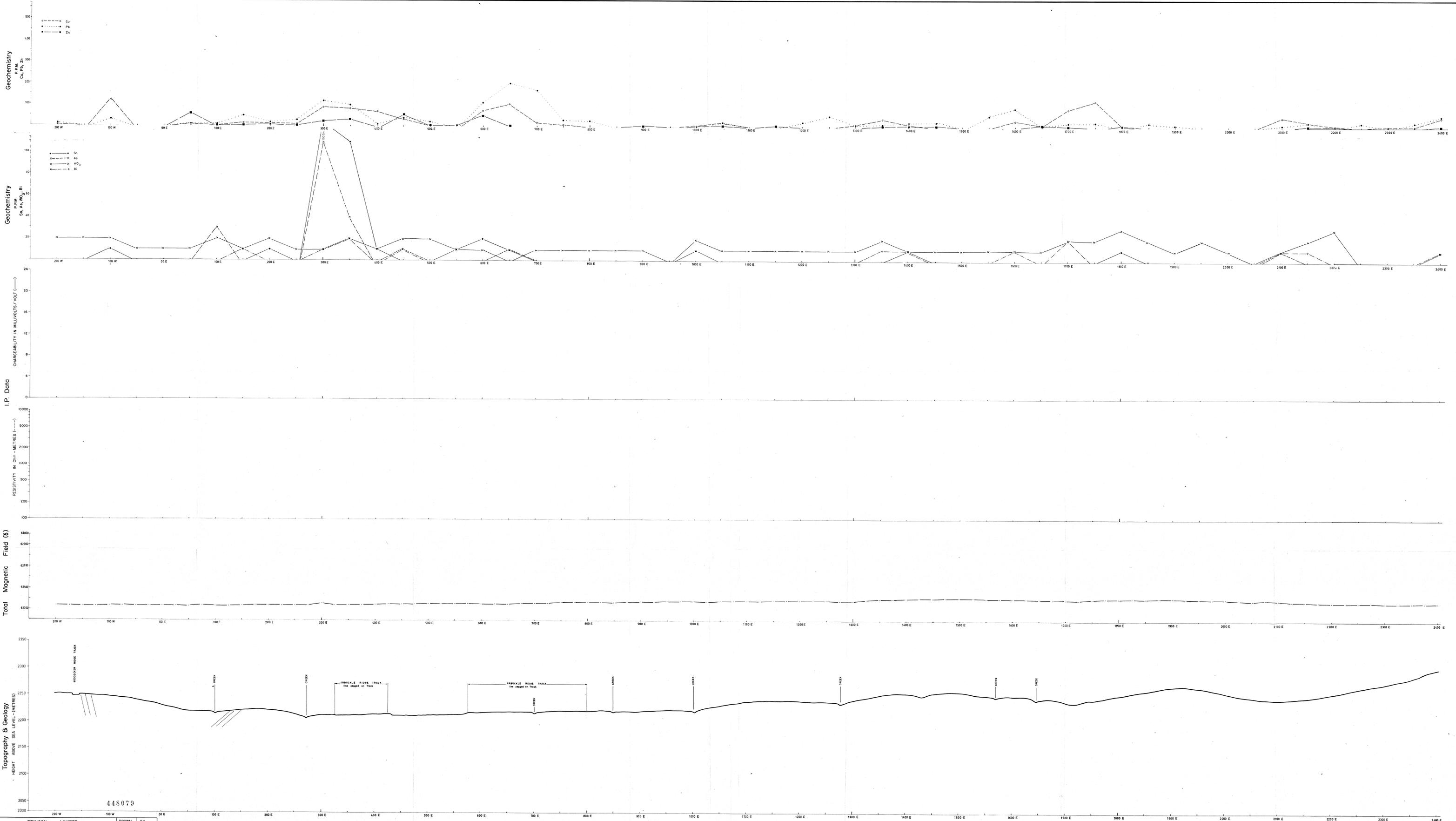
TOTAL FIELD GROUND MAGNETICS

| | | |
|-------------|---------|--------------------|
| GEOLOGIST | DJK | SCALE 1:5000METRES |
| DRAUGHTSMAN | | 100 0 100 200 |
| DATE | NOV. 83 | |
| REVISIONS | | DRAWING No. |
| | | PLAN 8 |



50m

068

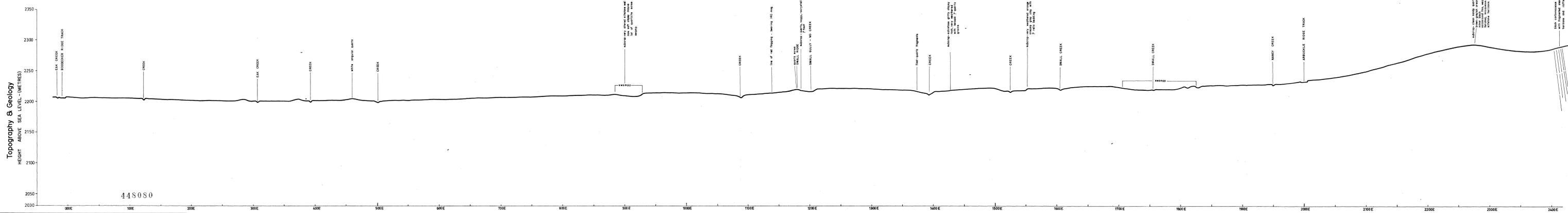
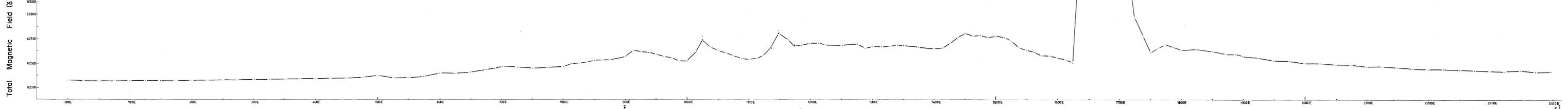
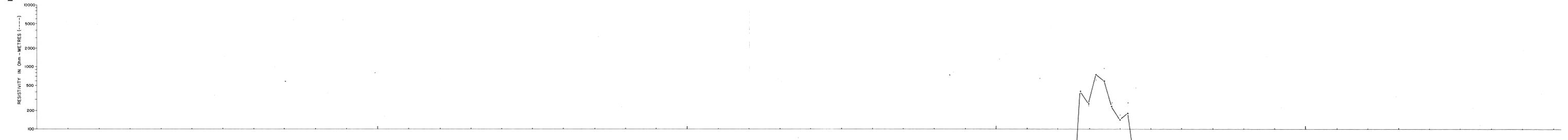
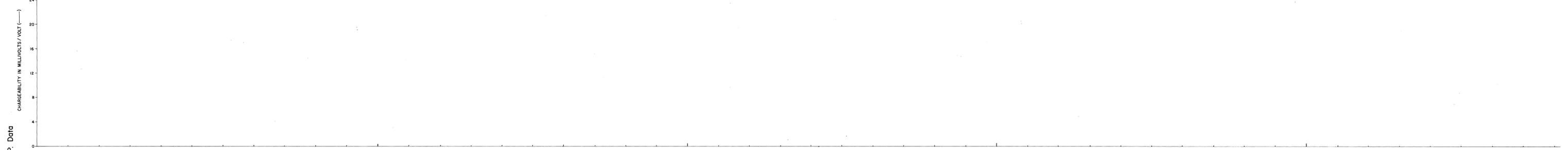
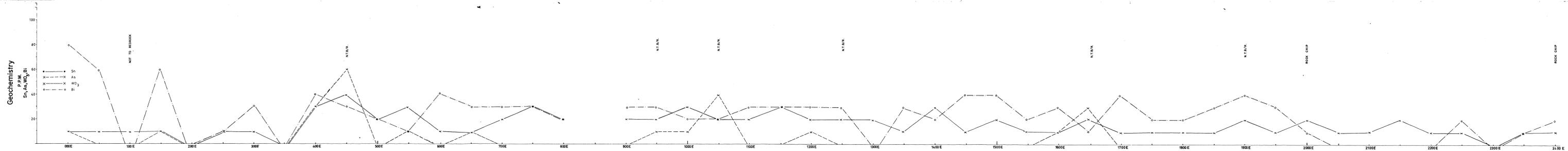
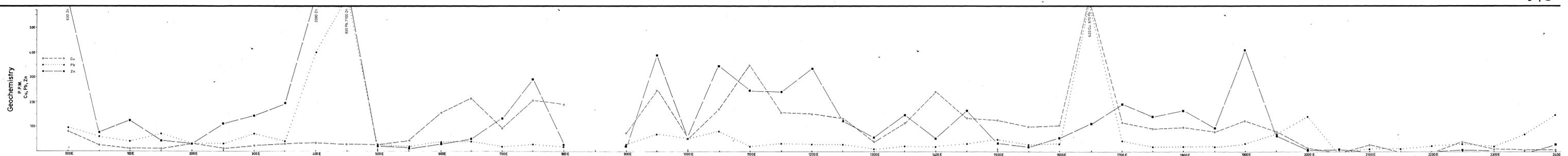


| | | | | | |
|--|--|--|--|--|---|
| RENISON LIMITED DUNKLEY FAULT GRID 069 LINE 00S | | DRAWN: D.K. TRACED: T.G.S. DATE: Oct 1985 SCALE: 1:2000 DRAWING No.: PLAN 9A | Geochemistry Cu: —●—●— Pb: - - - - - Zn: —■—■— Sn: —●—●— As: —x—x— WO ₃ : —x—x— Bi: —○—○— | Magnetics - normal reading in pit of 2m. (staff on ground) - pit of 3m. (staff on hp) - repeated readings at different times | Topography - Reduced levels based broadly on 1:5000 - Zedon B3/2 sheet detail from line mapping. Vertical: horizontal approx 1:1 |
|--|--|--|--|--|---|

448079

SCALE 1:2000 METRES

5 cm



448080

| | | | |
|--------------------|---------|-------------|----------|
| REINSON LIMITED | 34-2406 | DRAWN | DK |
| DUNKLEY FAULT GRID | 070 | TRACED | T.G.D.S. |
| LINE 200 S | | DATE | SEP 83 |
| | | SCALE | 1:2000 |
| | | DRAWING No. | |
| | | | PLAN 9B |

Geochemistry

- Cu
- Pb
- △— Zn
- Sn
- As
- △— WO₃
- ◇— Bi

Magnetics

- normal reading in pot at 2m (staff on ground)
- pot at 3m (staff on hip)
- repeated readings at different times

Topography

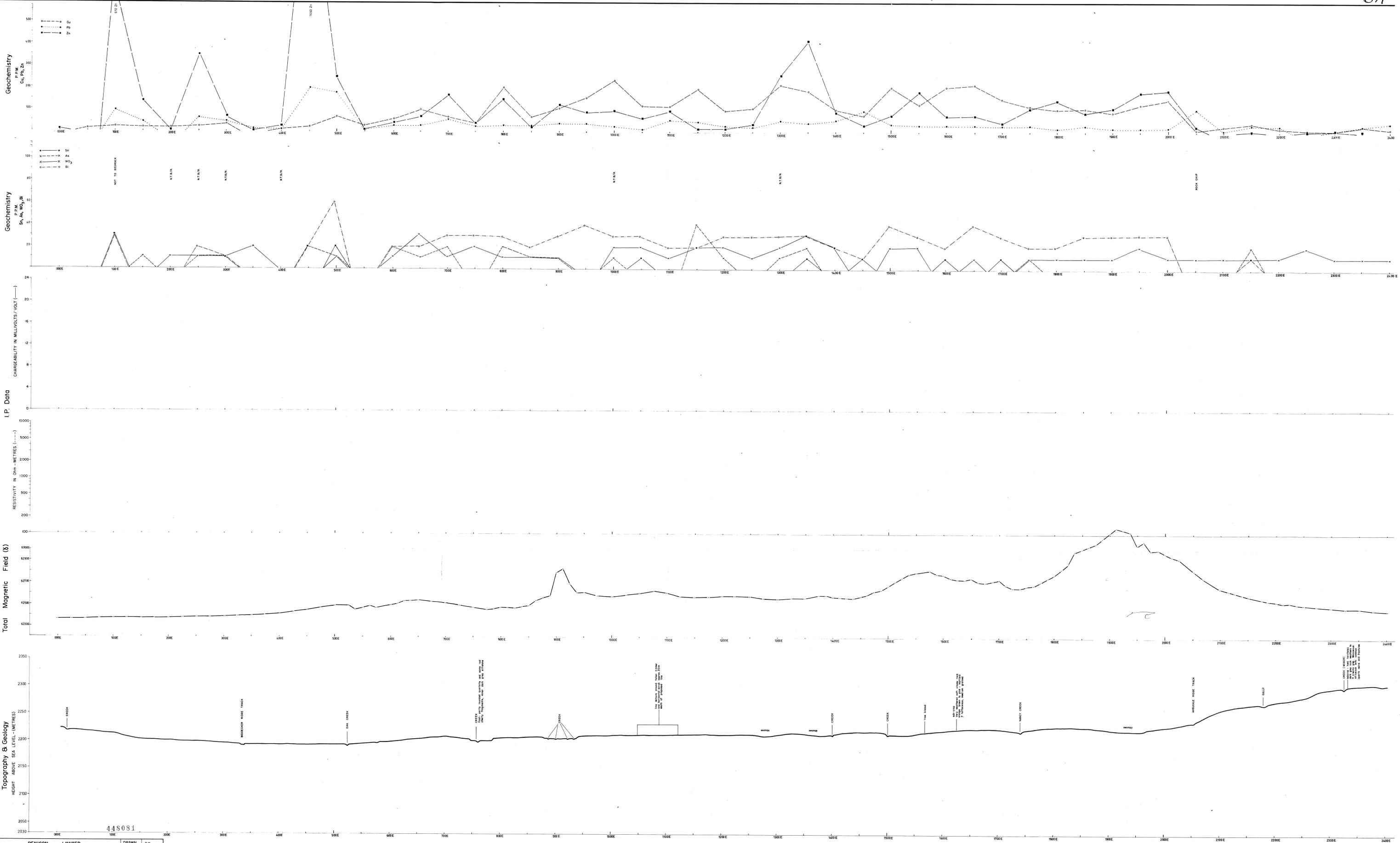
Reduced levels based broadly on 1:5000 Zephon B3/2 sheet detail from line mapping. Vertical: horizontal approx 1:1

SCALE: 1:2000

40 METRES

0 40 80 120

5cm

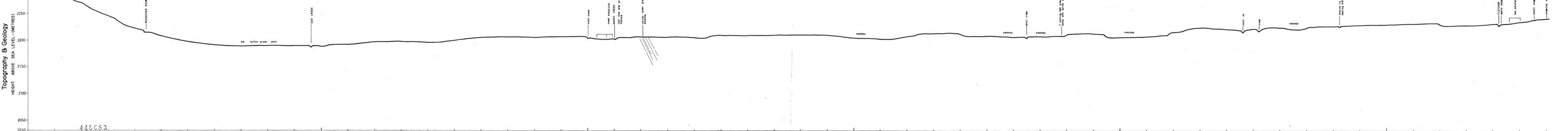
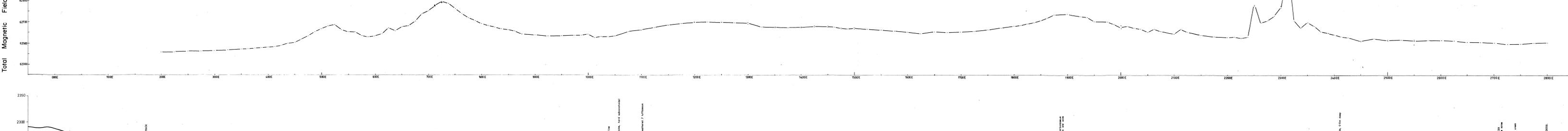
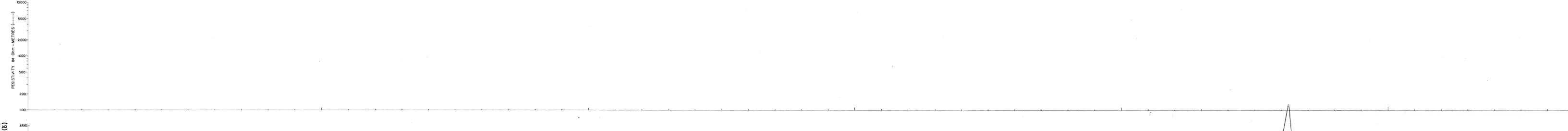
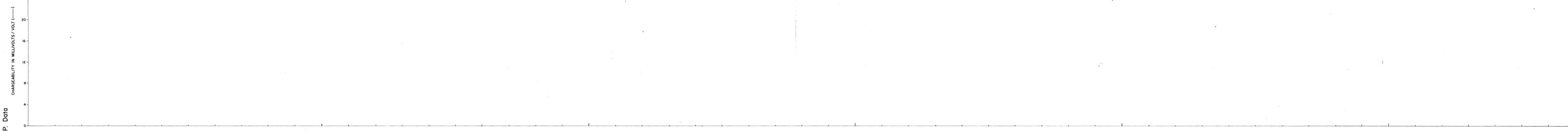
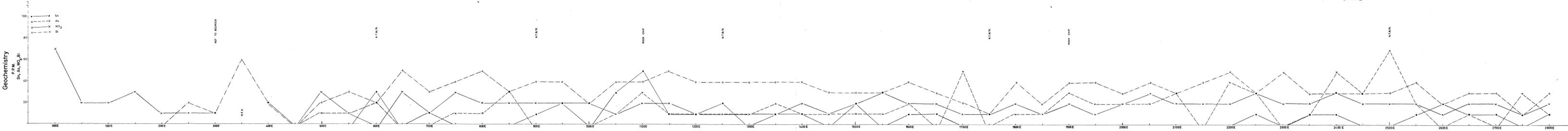
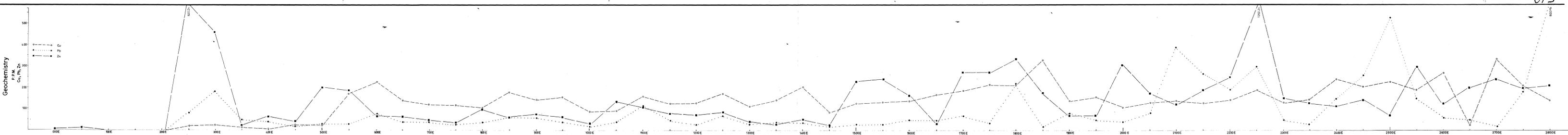


| | | | | | |
|---|--|--|--|--|--|
| RENISON LIMITED DUNKLEY FAULT GRID LINE 400S 071 | | DRAWN: T.G.S. TRACED: T.G.S. DATE: Sept. 83 SCALE: 1:2000 DRAWING No.: PLAN 9C | Geochemistry —●— Cu - - - ○ - - - Pb ····· △···· Zn —●— Sn - - - ○ - - - As ····· △···· W - - - ○ - - - Bi | Magnetics — normal reading is at 2m (staff on ground) ·· point at 5m (staff on top) repeated readings at different times | Topography Reduced levels based broadly on 1:5000 Zebra on 1:5000 sheet detail from line mapping. Vertical: horizontal approx. 1:1 |
|---|--|--|--|--|--|

448081

SCALE METRES 0 40 80 120

5 cm

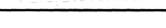


RENISON LIMITED
DUNKLEY FAULT GRID 073
LINE 800S
SCALE 1:2000
DRAWING No. PLAN 9E

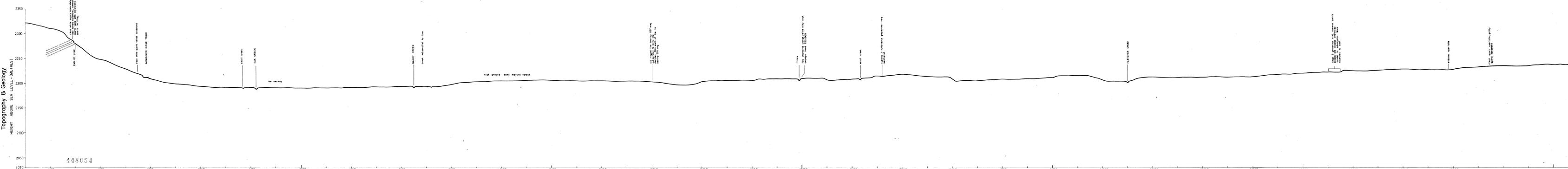
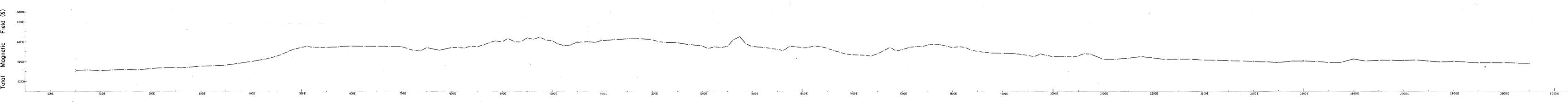
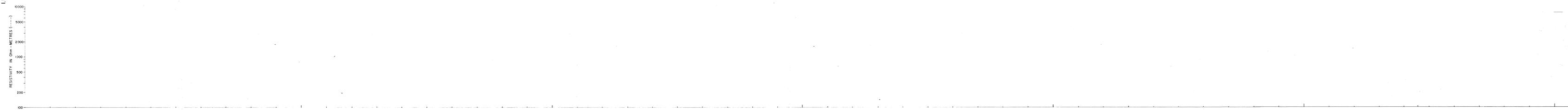
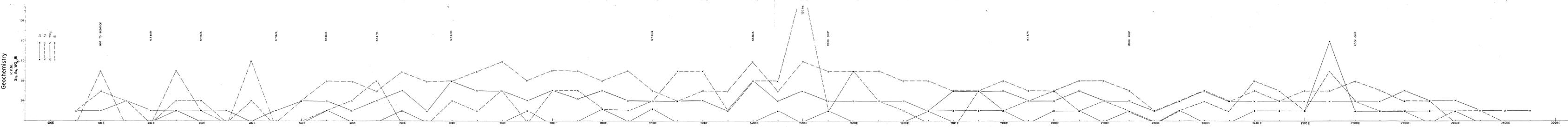
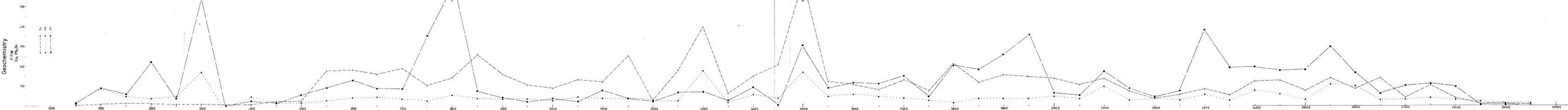
Geochemistry
 - - - - - Cu
 - - - - - Pb
 - - - - - Zn
 - - - - - Ni
 - - - - - Sn
 - - - - - Al
 - - - - - WO₃
 - - - - - Bi

Magnetics
 - Normal reading is out of 2m (stiff on ground)
 - dot or 3m (stiff on rig)
 - repeated readings at different times

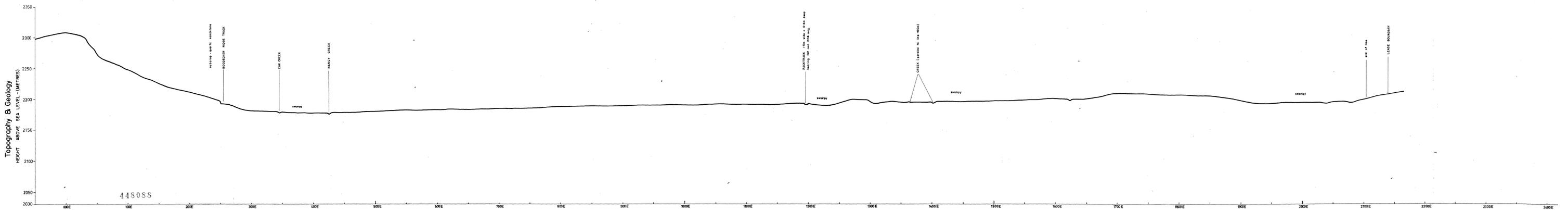
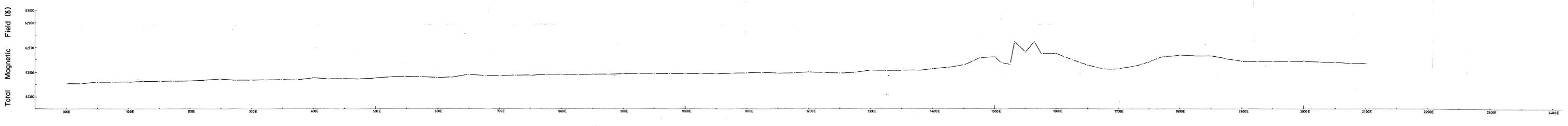
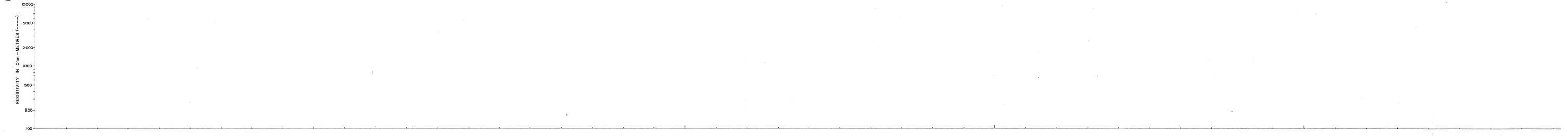
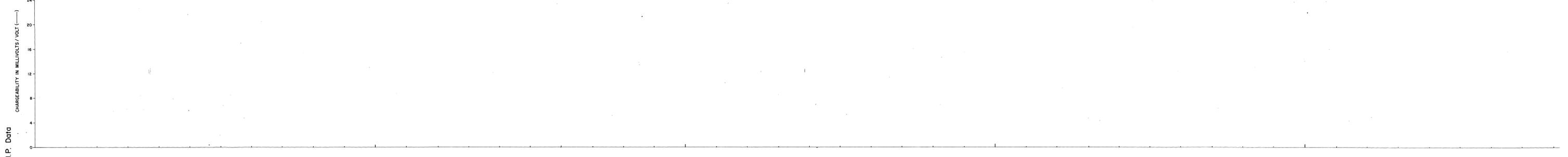
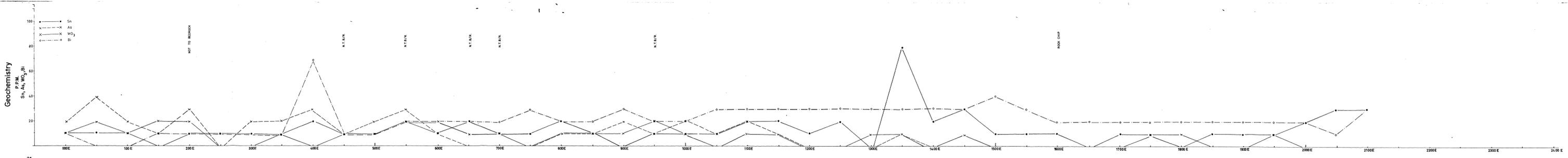
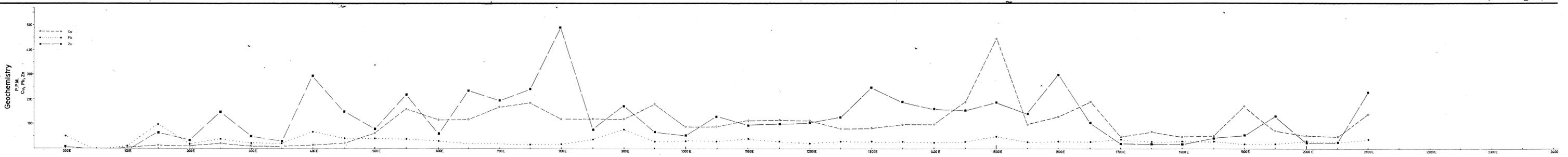
Topography
 Reduced levels based broadly on 15000
 Zeehan B3/2 sheet detail from line
 mapping. Vertical/horizontal approx 1:1



445CS3



| | | | | |
|---|--|---|---|--|
| <p>REINSON LIMITED DUNKLEY FAULT GRID 074 LINE 1000S SCALE 1:2000 DRAWING No. PLAN 9F</p> | <p>DATE 09/1983 SCALE 1:2000 DRAWING No. PLAN 9F</p> | <p>Geochemistry - - - - - Cu Pb - - - - - Zn - - - - - Sn - - - - - As - - - - - W - - - - - Bi - - - - - Mn</p> | <p>Magnetics - normal reading in set of 2m (staff on ground) - set of 2m (staff on rail) - recorded readings at different times</p> | <p>Topography Reduced levels based broadly on 1:5000 Datum: BSAD sheet datum from 1:5000 Mapping Vertical horizontal approx. 1:1</p> |
|---|--|---|---|--|



RENISON LIMITED 24-2/06
DUNKLEY FAULT GRID 078
LINE 1800 S
PLAN SJ

DRAWN D.K.
TRACED T.G.D.S.
DATE Sept 83
SCALE 1:2000
DRAWING No.

Geochemistry
 ○—○— Cu
 ●—●— Pb
 ■—■— Zn
 □—□— Fe
 ×—×— Sn
 ×—×— As
 ×—×— W
 ×—×— Bi
 ×—×— Mo

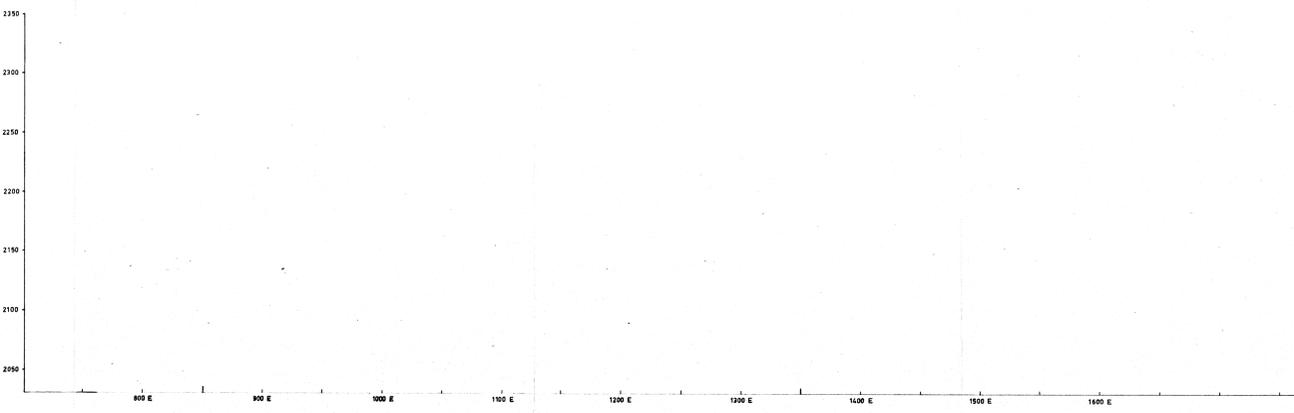
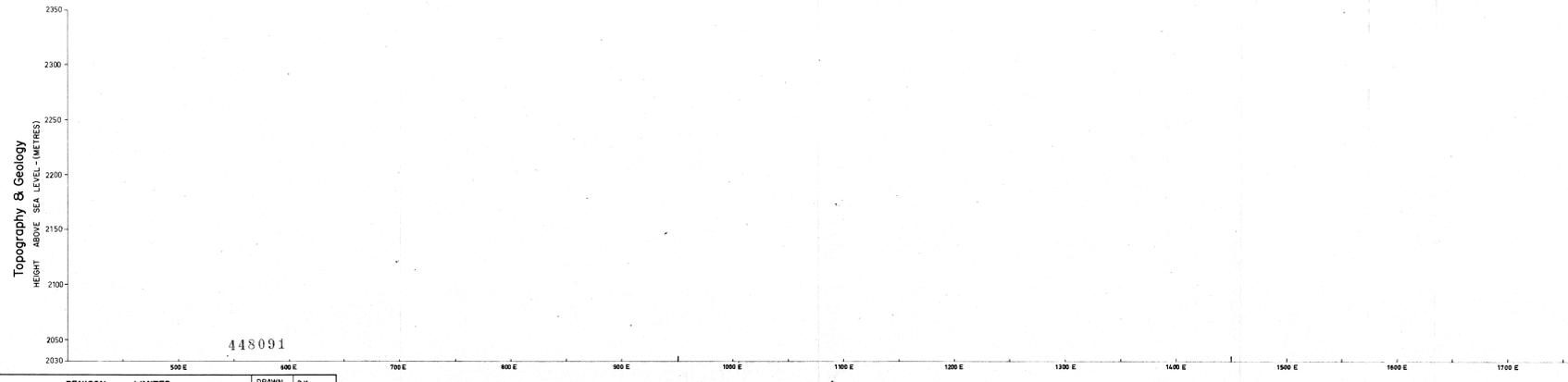
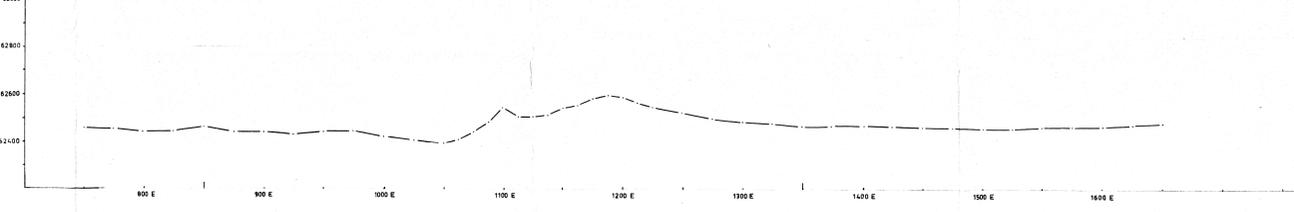
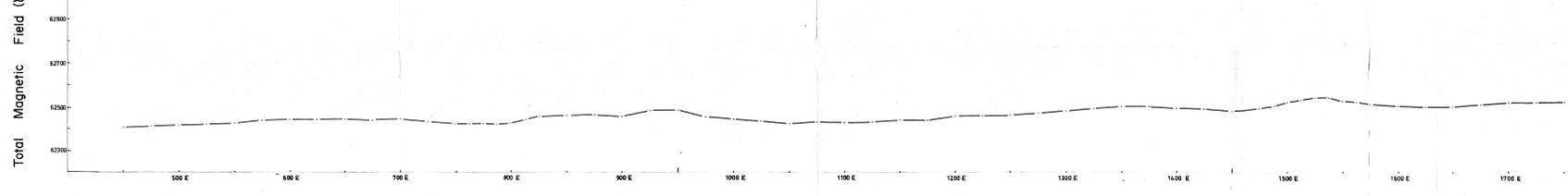
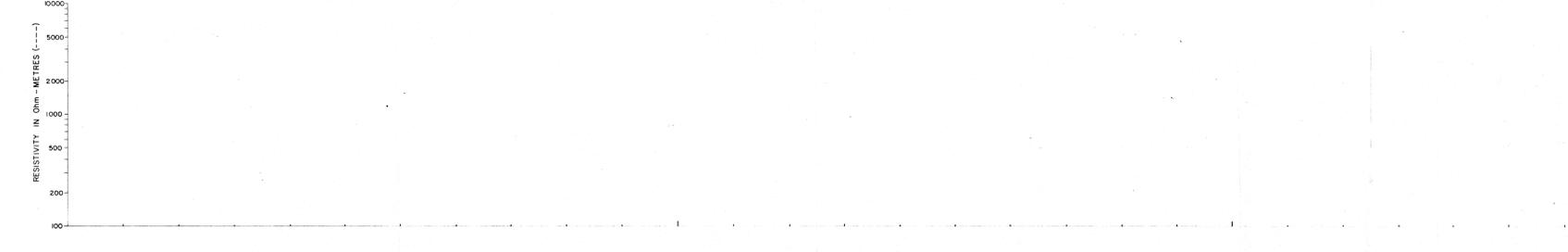
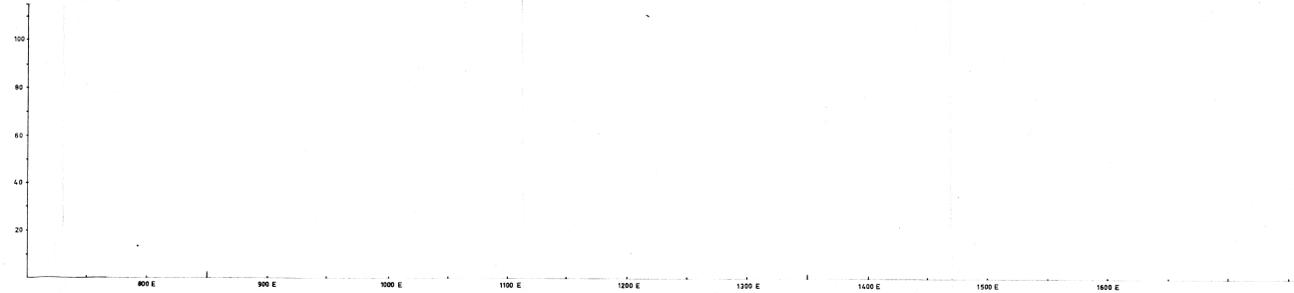
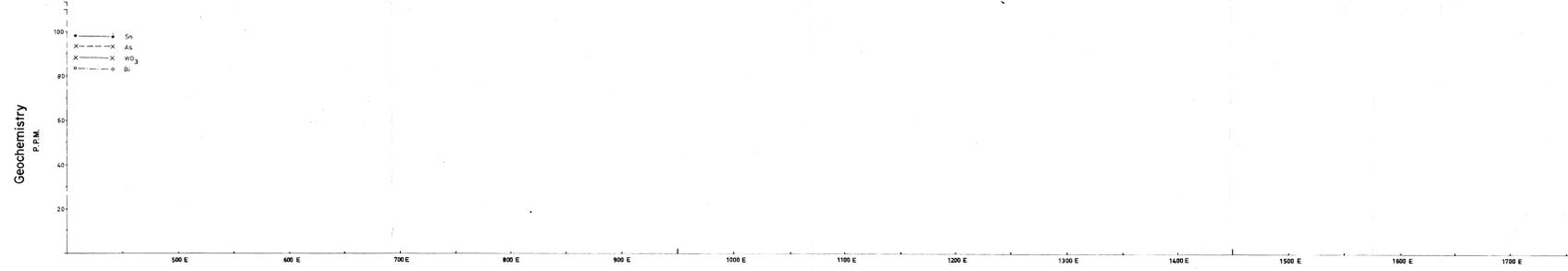
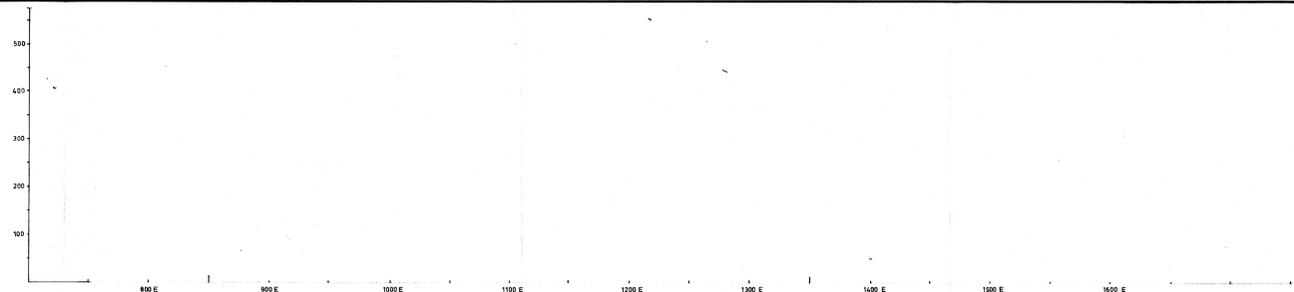
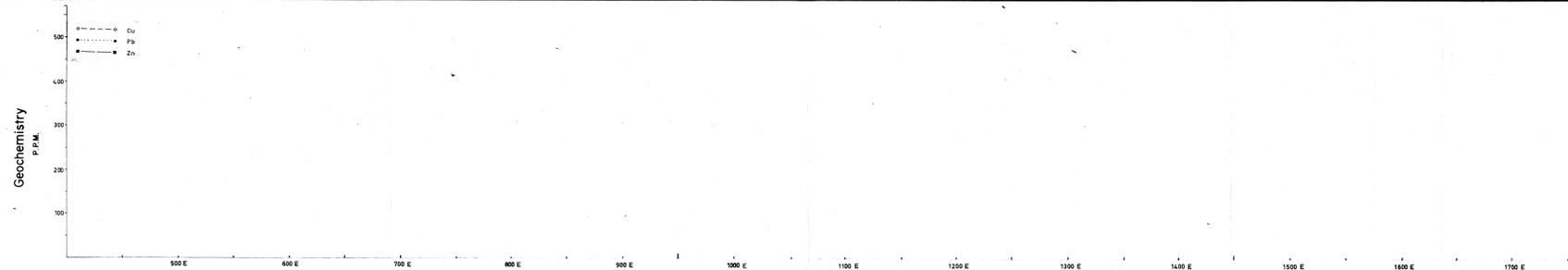
Magnetics
 * normal reading is pot at 2m (staff on ground)
 * pot at 3m (staff on hip)
 : repeated readings at different times

Topography
 Reduced levels based broadly on 1:5000
 Zealand 83/2 sheet detail from line
 mapping (vertical horizontal approx. 1:1)

448088

SCALE 1:2000 METRES

5cm



RENISON LIMITED
DUNKLEY FAULT GRID
LINE 2400 S & 2600 S
SCALE 1:2000
DRAWING No. PLAN 9M

448091

Geochemistry
Cu, Pb, Zn, Sn, As, WO₃, Bi

Magnetics
normal reading in soil at 2m (staff on ground)
pot. at 5m (staff on rock)
repeated readings at different times

Topography
Reduced levels based broadly on 1:5000
Detail 1:2500 sheet detail from line
mapping Vertical horizontal approx 1:1

SCALE 50 METRES

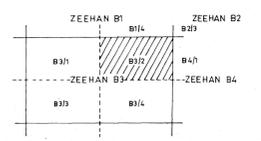
DRWN D.K.
TRACED T.G.O.S.
DATE Oct. 1983
SCALE 1:2000
DRAWING No. PLAN 9M





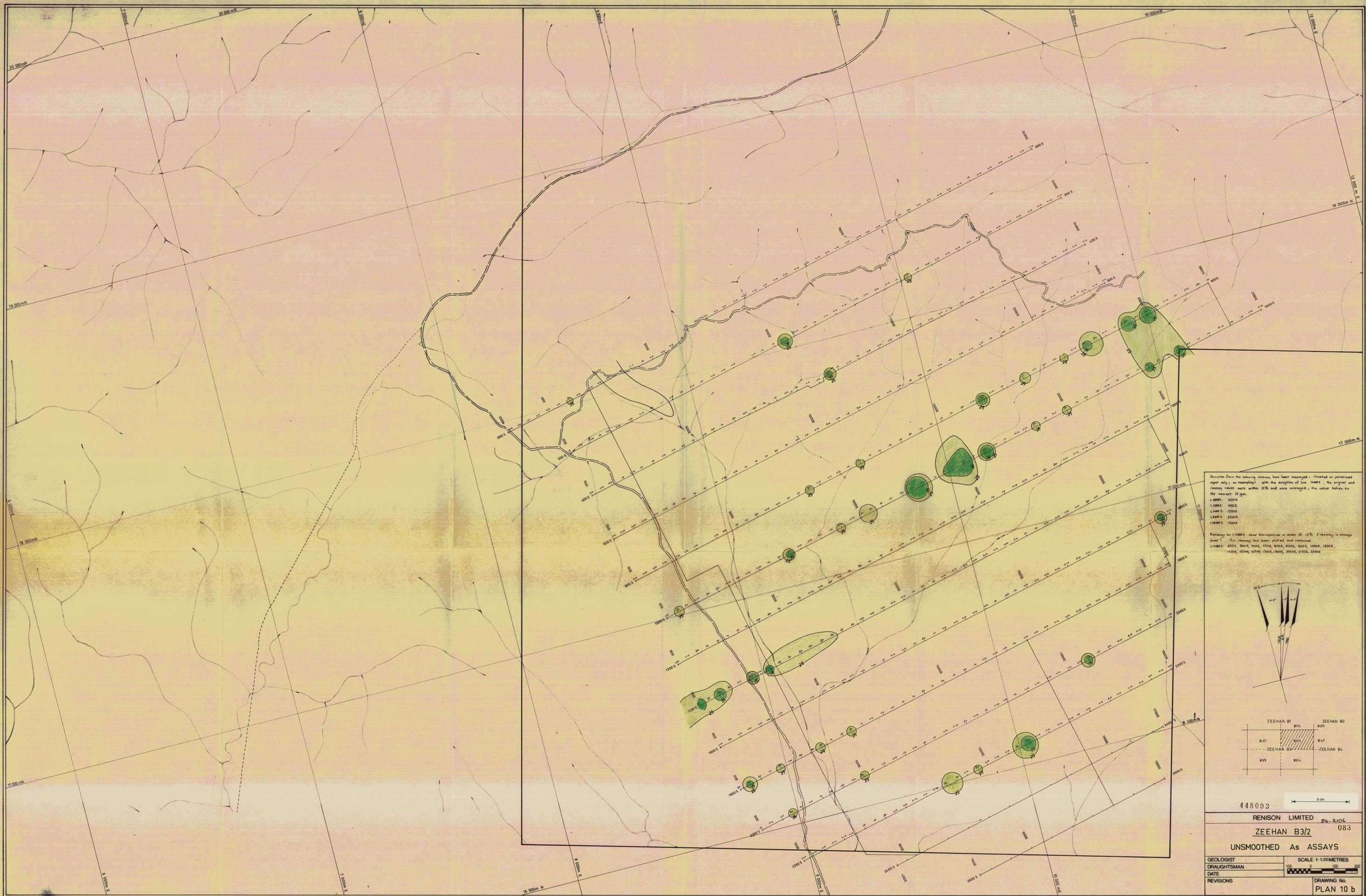
Samples from the following elevations have been processed - Contour or nearest spot may, as necessary. The resulting values have been averaged - value taken to nearest 10 ppm. Repeat assays were within 15% of original values.
 L1400S : 300E, 350E
 L1405S : 220E, 250E
 L1406S : 1350E

Values on line L1405S appear to be consistently 20 ppm high, apparently due to contamination. Results in this case were not averaged with original values. From the resulting data, the background level of the whole line was reduced to match that of the other lines to $4-10\text{ ppm}$.
 Revising on L1405S:
 200E, 300E, 700E, 750E, 800E, 850E, 90E, 100E, 150E, 140E, 150E, 145E, 170E, 180E, 200E, 210E, 220E



448092
 5 cm

| | | |
|----------------------|----------------------|-----------|
| RENISON LIMITED | | 24-2106 |
| ZEEHAN B3/2 | | 082 |
| UNSMOOTHED Sn ASSAYS | | |
| GEOLOGIST | SCALE 1:5,000 METRES | |
| DRAWINGSMAN | 100 0 100 200 | |
| DATE | REVISIONS | |
| DRAWING No. | | PLAN 10 a |

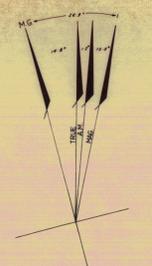


Samples from the following stations have been re-assayed - Crushed or pulverised (not only) as re-assaying. With the exception of line 1000S, the original and re-assayed values were within 15% and were averaged; the value taken to be the nearest 10 ppm.

Line 1000S: 300S
 Line 1200S: 450E
 Line 1300S: 1500E
 Line 1400S: 2500E
 Line 1500S: 3500E

Rankings on 1000S show discrepancies in excess of 15%. Re-assaying is always done. The re-assaying has been plotted and confirmed.

Line 1000S: 200S, 300S, 400S, 500S, 600S, 700S, 800S, 900S, 1000E, 1100E, 1200E, 1300E, 1400E, 1500E, 1600E, 1700E, 1800E, 1900E, 2000E, 2100E, 2200E



448093

RENISON LIMITED 84-210C

ZEEHAN B3/2 083

UNSMOOTHED As ASSAYS

| | |
|-------------|-----------------------|
| GEOLOGIST | SCALE 1:5,000METRES |
| DRAUGHTSMAN | 100 0 100 200 |
| DATE | |
| REVISIONS | DRAWING No. PLAN 10 b |

083

084

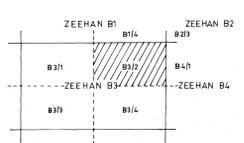


Samples from the following addresses have been re-assayed - (Checked or indicated repeat only; no re-assaying). The re-assay and original values have been averaged - value taken to nearest 10 ppm. Repeat assay within 15% of original value (W03) 0005.

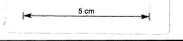
Initial assay on L14255 appeared to be consistently 10-20 ppm high. Repeated assay were lower & similar to adjacent lines, because of the discrepancy, only the repeat assay were plotted. From the re-assay data, the background level of the whole line was reduced to match the adjacent lines i.e. - 10 ppm.

Readings on L14255:

2005, 3005, 7005, 7505, 8005, 8505, 9005, 10005, 13005, 15005, 16505, 17005, 18005, 20005, 21505, 22005.



448094

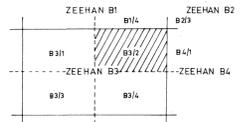


| | | |
|-----------------------|--------------------|---------|
| RENISON LIMITED | | 84-210c |
| ZEEHAN B3/2 | | 084 |
| UNSMOOTHED W03 ASSAYS | | |
| GEOLOGIST | SCALE 1:5000METRES | |
| DRAUGHTSMAN | 100 0 100 200 | |
| DATE | REVISIONS | |
| | DRAWING No. | |
| | PLAN 10c | |



Samples from the following schemes have been reassigned - (checked or put in red)
 report may be reworking. The reworking and original values have been averaged.
 minimum value no more than 10 ppm. Repair anomalies within 15% of original values.

200 S : 050E, 050E
 400 S : 500E
 600 S : 300E, 650E, 1000E, 1300E
 1000 S : 1500E
 1200 S : 400E
 2000 S : 200E

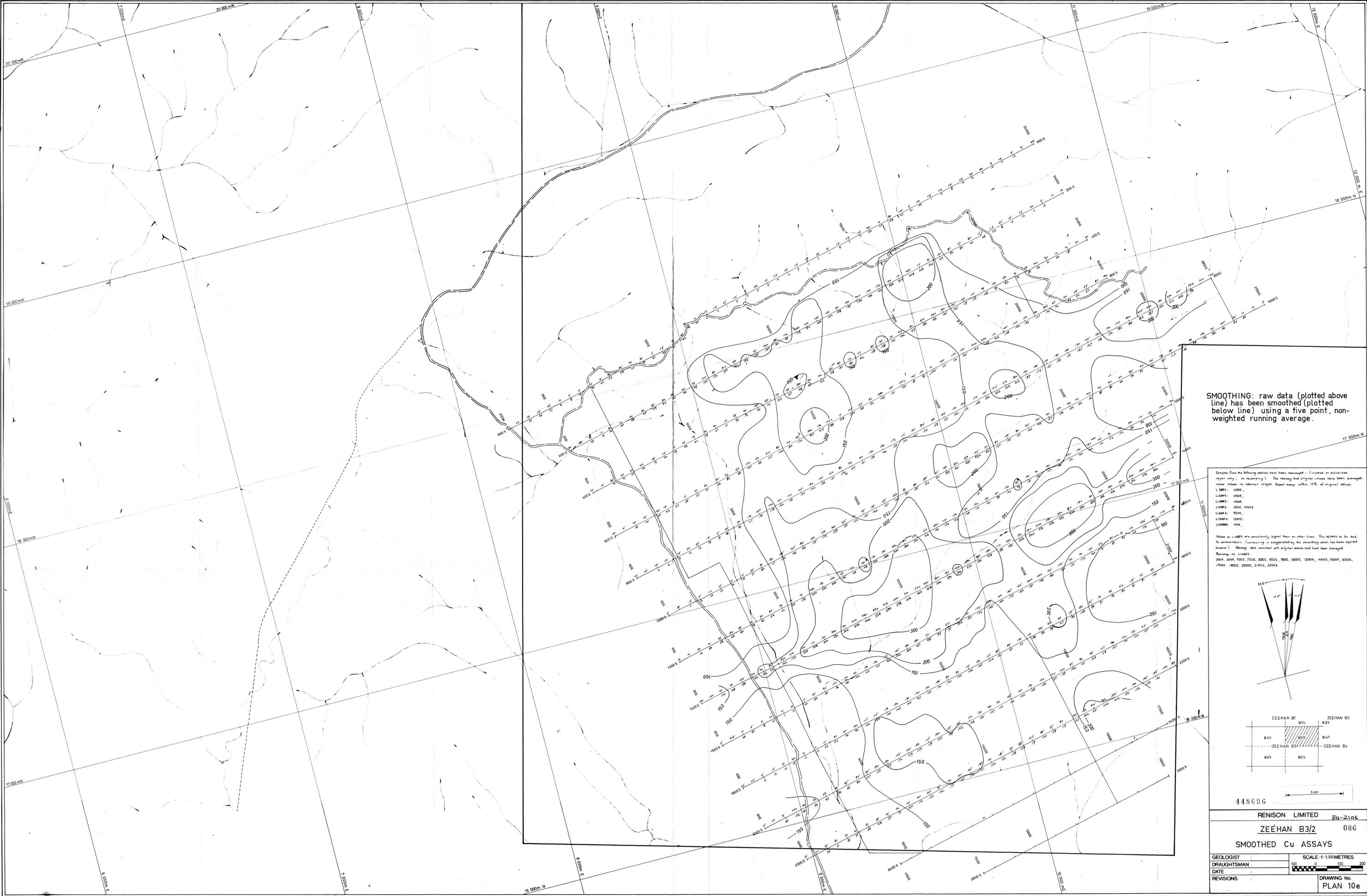


448095

RENISON LIMITED 89-2106
 ZEEHAN B3/2 085
 UNSMOOTHED Bi ASSAYS

GEOLOGIST: _____ SCALE 1:500 METRES
 DRAUGHTSMAN: _____ 100 0 100 200
 DATE: _____
 REVISIONS: _____ DRAWING No. PLAN 10d

085



SMOOTHING: raw data (plotted above line) has been smoothed (plotted below line) using a five point, non-weighted running average.

Samples from the following sections have been reassessed - (Crushed or polished retest only - no retesting). The retest and original values have been averaged where values are not more than 10% apart. Values are shown within 10% of original values.

Legend:

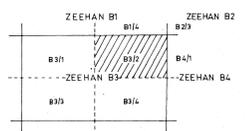
- L1000: 1000E
- L1005: 1005E
- L1010: 1010E
- L1015: 1015E
- L1020: 1020E
- L1025: 1025E
- L1030: 1030E
- L1035: 1035E
- L1040: 1040E
- L1045: 1045E
- L1050: 1050E
- L1055: 1055E
- L1060: 1060E
- L1065: 1065E
- L1070: 1070E
- L1075: 1075E
- L1080: 1080E
- L1085: 1085E
- L1090: 1090E
- L1095: 1095E
- L1100: 1100E
- L1105: 1105E
- L1110: 1110E
- L1115: 1115E
- L1120: 1120E
- L1125: 1125E
- L1130: 1130E
- L1135: 1135E
- L1140: 1140E
- L1145: 1145E
- L1150: 1150E
- L1155: 1155E
- L1160: 1160E
- L1165: 1165E
- L1170: 1170E
- L1175: 1175E
- L1180: 1180E
- L1185: 1185E
- L1190: 1190E
- L1195: 1195E
- L1200: 1200E
- L1205: 1205E
- L1210: 1210E
- L1215: 1215E
- L1220: 1220E
- L1225: 1225E
- L1230: 1230E
- L1235: 1235E
- L1240: 1240E
- L1245: 1245E
- L1250: 1250E
- L1255: 1255E
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- L1275: 1275E
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- L1305: 1305E
- L1310: 1310E
- L1315: 1315E
- L1320: 1320E
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- L1330: 1330E
- L1335: 1335E
- L1340: 1340E
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- L1495: 1495E
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- L1505: 1505E
- L1510: 1510E
- L1515: 1515E
- L1520: 1520E
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- L3770: 3770E
- L3775: 3775E
- L3780: 3780E
- L3785: 3785E
- L3790: 3790E
- L3795: 3795E
- L3800: 3800E
- L3805: 3805E
- L3810: 3810E
- L3815: 3815E
- L3820: 3820E
- L3825: 3825E
- L3830: 3830E
- L3835: 3835E
- L3840: 3840E
- L3845: 3845E
- L3850: 3850E
- L3855: 3855E
- L3860: 3860E
- L3865: 3865E
- L3870: 3870E
- L3875: 3875E
- L3880: 3880E
- L3885: 3885E
- L3890: 3890E
- L3895: 3895E
- L3900: 3900E
- L3905: 3905E
- L3910: 3910E
- L3915: 3915E
- L3920: 3920E
- L3925: 3925E
- L3930: 3930E
- L3935: 3935E
- L3940: 3940E
- L3945: 3945E
- L3950: 3950E
- L3955: 3955E
- L3960: 3960E
- L3965: 3965E
- L3970: 3970E
- L3975: 3975E
- L3980: 3980E
- L3985: 3985E
- L3990: 3990E
- L3995: 3995E
- L4000: 4000E
- L4005: 4005E
- L4010: 4010E
- L4015: 4015E
- L4020: 4020E
- L4025: 4025E
- L4030: 4030E
- L4035: 4035E
- L4040: 4040E
- L4045: 4045E
- L4050: 4050E
- L4055: 4055E
- L4060: 4060E
- L4065: 4065E
- L4070: 4070E
- L4075: 4075E
- L4080: 4080E
- L4085: 4085E
- L4090: 4090E
- L4095: 4095E
- L4100: 4100E
- L4105: 4105E
- L4110: 4110E
- L4115: 4115E
- L4120: 4120E
- L4125: 4125E
- L4130: 4130E
- L4135: 4135E
- L4140: 4140E
- L4145: 4145E
- L4150: 4150E
- L4155: 4155E
- L4160: 4160E
- L4165: 4165E
- L4170: 4170E
- L4175: 4175E
- L4180: 4180E
- L4185: 4185E
- L4190: 4190E
- L4195: 4195E
- L4200: 4200E
- L4205: 4205E
- L4210: 4210E
- L4215: 4215E
- L4220: 4220E
- L4225: 4225E
- L4230: 4230E
- L4235: 4235E
- L4240: 4240E
- L4245: 4245E
- L4250: 4250E
- L4255: 4255E
- L4260: 4260E
- L4265: 4265E
- L4270: 4270E
- L4275: 4275E
- L4280: 4280E
- L4285: 4285E
- L4290: 4290E
- L4295: 4295E
- L4300: 4300E
- L4305: 4305E
- L4310: 4310E
- L4315: 4315E
- L4320: 4320E
- L4325: 4325E
- L4330: 4330E
- L4335: 4335E
- L4340: 4340E
- L4345: 4345E
- L4350: 4350E
- L4355: 4355E
- L4360: 4360E
- L4365: 4365E
- L4370: 4370E
- L4375: 4375E
- L4380: 4380E
- L4385: 4385E
- L4390: 4390E
- L4395: 4395E
- L4400: 4400E
- L4405: 4405E
- L4410: 4410E
- L4415: 4415E
- L4420: 4420E
- L4425: 4425E
- L4430: 4430E
- L4435: 4435E
- L4440: 4440E
- L4445: 4445E
- L4450: 4450E
- L4455: 4455E
- L4460: 4460E
- L4465: 4465E
- L4470: 4470E
- L4475: 4475E
- L4480: 4480E
- L4485: 4485E
- L4490: 4490E
- L4495: 4495E
- L4500: 4500E
- L4505: 4505E
- L4510: 4510E
- L4515: 4515E
- L4520: 4520E
- L4525: 4525E
- L4530: 4530E
- L4535: 4535E
- L4540: 4540E
- L4545: 4545E
- L4550: 4550E
- L4555: 4555E



SMOOTHING: raw data (plotted above line) has been smoothed (plotted below line) using a five point non-weighted running average.

Sample from the following stations have been returned - (checked on subsequent report only) no resampling. The raw and original values have been averaged - value taken to nearest 10 ppm. The report shows data with 15% of original values.

| | |
|---------|---|
| L1805 S | 640E, 700E, |
| L1805 S | 400S, 540E, 1500E, |
| L1805 S | 300S, 450E, 800E, |
| L1805 S | 400E, 450E, 900E, |
| L1805 S | 250E, 300E, 1800E, 2100E, 2150E, 2200E, 2150E, 2450E, 2600E, 2800E, |
| L1805 S | 300E, 800E, |
| L1805 S | 300E, 700E, 1750E, 2250E, |
| L1805 S | 500E, |
| L1805 S | 1600E, |
| L1805 S | 100E, 300E, 1500E, |



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| | |
|-------------------------|-----------------------|
| RENISON LIMITED 84-216C | |
| ZEEHAN B3/2 087 | |
| SMOOTHED Pb ASSAYS | |
| GEOLOGIST | SCALE 1:5000METRES |
| DRAUGHTSMAN | 100 0 100 200 |
| DATE | |
| REVISIONS | DRAWING No. PLAN 10 f |

087

