000

GOLD FIELDS EXPLORATION PTY. LIMITED

281001

E.L. 17/77

WILSON RIVER AREA

ANNUAL REPORT FOR 1983-84

By: A.J. Cartwright
Geologist

P. Komyshan
Geologist

P.A. Roberts
Senior Geologist

- SEP 1984

Circulation: R.G.C. (2)
Mines Department (1)

SUMMARY

Exploration completed on E.L. 17/77 during 1983/84 comprised stream sediment sampling in the Huskisson Syncline, diamond drilling at Laurel Creek and geological mapping at Tadpole Hill. This work was all helicopter-supported and cost $104,000 to complete.

Stream sediment sampling in the Huskisson Syncline indicated that the only area of real interest is the Alfred River tin anomaly which was partly delineated in 1981/82. Within the latter anomaly, stream sediment samples commonly contain more than 500 ppm Sn over an area of 1.5 sq. km. Pan concentrate samples from this area contain abundant chromite and cassiterite, the latter with an average grainsize of about 200 µm. The source of the anomaly may either be hydrothermal tin mineralisation hosted by the Bell Shale or an alluvial (or glacial?) concentration.

Five holes were drilled on the Laurel Creek Grids for a total of 477m. This work confirmed that extensive magnetite skarns are present in the area and contain some tin and tungsten. Best results were 8.5m (down-hole) of 0.35% Sn (0.07% acid soluble) and 0.17% WO_3 and 7.0m (down-hole) of 0.65% Sn (0.14% acid soluble) and 0.01% WO_3. Subsequent petrological work failed to identify any cassiterite and suggested that these skarns would be extremely difficult to treat.

Geological mapping at Tadpole Hill indicated that a large volume of tourmalinised granite is present there, however tin grades are generally low. In the light of the current difficult tin market, this style of mineralisation is no longer favourably regarded as an exploration target.

Work proposed for 1984-85 consists of gridding, bedrock and soil sampling and a ground magnetic survey over the Alfred River tin anomaly. This work, which should be helicopter-supported, is expected to cost $63,400.

GOLD FIELDS EXPLORATION PTY. LIMITED

TABLE OF CONTENTS

GOLD FIELDS EXPLORATION PTY. LIMITED 281004

LIST OF FIGURES

1. INTRODUCTION

E.L. 17/77 covers 114 km² of rugged, heavily vegetated country between the Huskisson and Wilson Rivers together with the catchments of the latter rivers to the north (Figure 1).

The area is considered prospective primarily for tin-tungsten deposits within the extensive Ordovician-Devonian sediments of the Huskisson Syncline. A large proportion of the licence area covers the Synclinal sequence, the remainder being Devonian Meredith Granite. The styles of deposit most likely to occur in this environment are:

(1) Metasomatic replacement deposits in favourable calcareous host horizons within the sediments adjacent to the granite e.g. skarn deposits.

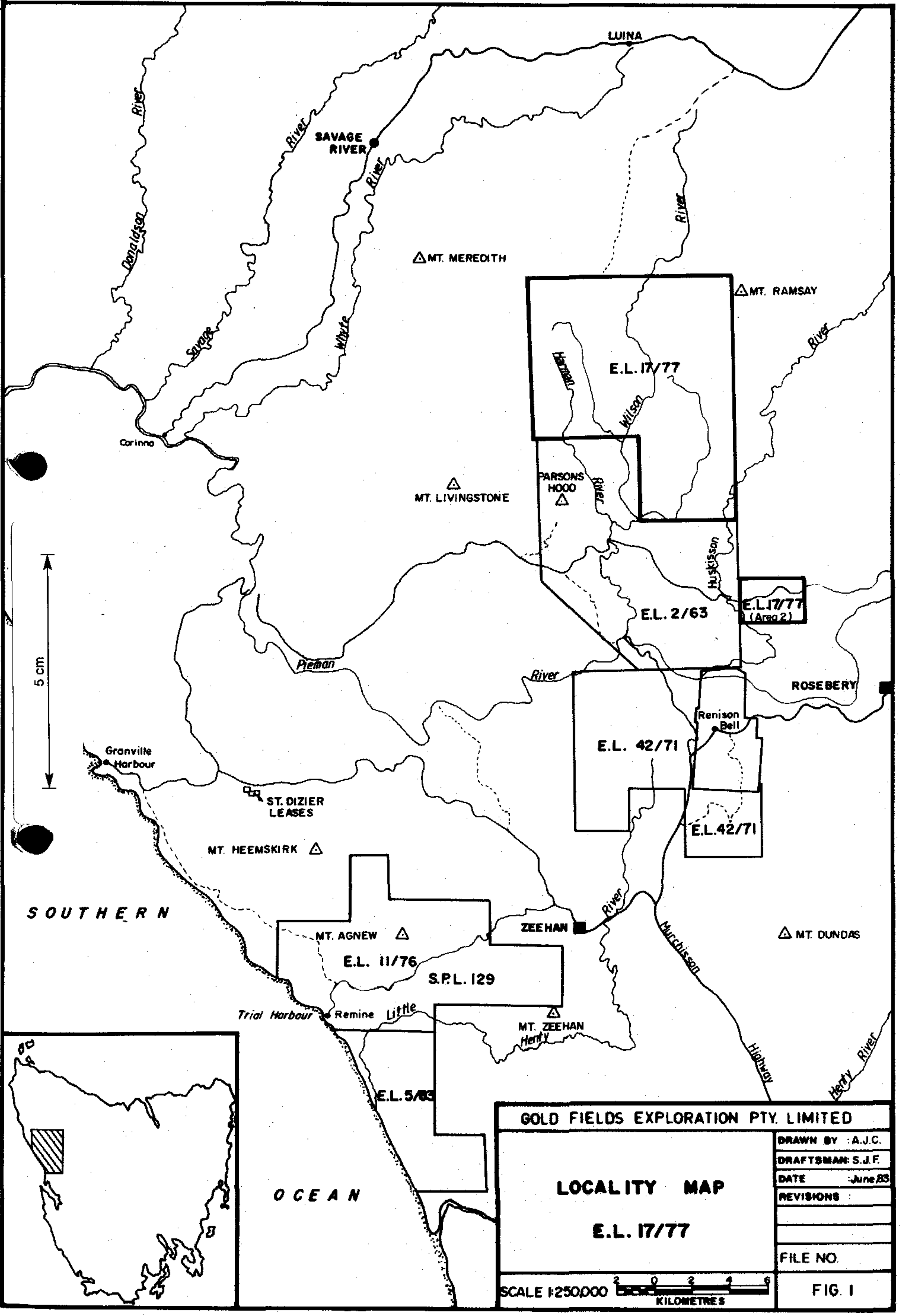
(2) Fault controlled replacement deposits some distance from the granite margin e.g. Renison-type deposits.

(3) Altered, mineralised, tourmalinised zones and fractures within the granite e.g. Tadpole Hill.

The licence area was granted to Renison Ltd in 1977. Gold Fields Exploration Pty. Ltd. has been the operator since mid-1982. Throughout the seven years of exploration, an effort has been made to keep enviromental disturbance to a minimum. Exploratory work has therefore relied heavily on the use of helicopters during short, intense field seasons in the summer months.

A systematic approach to exploration on E.L. 17/77 over the past seven years has involved using techniques such as airborne geophysics, photogeological mapping, gridding, detailed ground surveys and culminated this year with drilling

281006



GOLD FIELDS EXPLORATION PTY. LIMITED	
LOCALITY MAP E.L. 17/77	DRAWN BY : A.J.C. DRAFTSMAN: S.J.F. DATE : June 83 REVISIONS :
SCALE 1:250,000 2 0 2 4 6 KILOMETRES	FILE NO. FIG. 1

at the Laurel Creek prospect. Also this year, follow-up geochemistry and mapping programmes in the Alfred River area were carried out. The results of the drilling, sampling and mapping programmes are detailed and discussed in this report and recommendations for further work are made.

2. LAND TENURE

E.L. 17/77 is held by Renison Ltd. and is due for renewal on 8th March, 1985. The operator of the licence area is Gold Fields Exploration Pty. Ltd.

3. EXPENDITURE

A total of $2,965 has been spent during the current financial year, up until the end of August. During the previous financial year, $100,984 was spent, a large proportion of which was incurred during the six-week field season of January-February 1983. The total expenditure to date on E.L. 17/77 is $553,783.

Appendix 1 includes a breakdown of expenditure figures for the 14 months to the end of August, 1984.

4. PREVIOUS WORK

4.1 Prior to 1982

Previous work undertaken on E.L. 17/77 by other companies before 1977, is described by Schellekens (1978). Exploration programmes carried out on the licence by Renison Ltd. and G.F.E.L. between 1977 and 1982 consisted of:

(1) An airborne Input E.M./Magnetics survey in 1978 and a regional photogeological study in 1979

(Schellekens, 1978 and Wells, 1979).

(2) The establishment of the Harman River Grid and associated geochemical, geophysical and geological work in 1980; regional mapping and stream sediment sampling in 1981 (Ross, 1980 and Martin, 1981).

(3) Extensions of the 1981 stream sediment survey, infilling of the Harman River Grid at Little Wilson River and Tadpole Hill, together with the establishment of two new grids at Laurel Creek - all covered by geochemical, geological and (partial) geophysical surveys (Roberts and Martin, 1982).

4.2 1982-83

Work carried out during the last field season consisted of:

(1) Completion of the geophysical survey, initiated in 1981-82 at Laurel Creek.

(2) Detailed follow-up geophysics (magnetics), geochemistry (power augering) and geology over anomalous areas on the Laurel Creek and Little Wilson River Grids, with the aim of delineating specific drilling targets.

(3) A brief geological reconnaissance was made at Tadpole Hill and a cut access track to the Alfred River Area (stream sediment anomalies) was begun.

The details of this programme and the results obtained are fully covered by Cartwright (1983).

5. ALFRED RIVER AREA (P. Komyshan)

A stream sediment programme during 1981-82 delineated an area of stream sediment tin anomalies in the Alfred River area of the Huskisson Syncline. Work during 1983-84 concentrated on completing this survey to the north of the anomalous area.

5.1 Access

A walking track cut from the Pieman River Road during 1982-83 was extended 8 kilometres to the Alfred River and further north through the centre of the Huskisson Syncline.

Three helipads were also cut. This work was carried out under contract by the Freeman brothers.

5.2 Geology

The sampling programme was carried out entirely within the Devonian Bell Shale which is confined within the Huskisson Syncline. Rock chip samples collected are described in Appendix 2 and petrological descriptions of some of these samples are given in Appendix 5.

The sequence mapped is largely monotonous blue-grey pelite with very minor psammitic units. One sample collected contained carbonate with the matrix.

Mapping showed no evidence of mineralisation except for minor disseminated syngenetic pyrite. Petrological descriptions indicate that the outcropping sediments are devoid of hydrothermal alteration or contact-metamorphic effects.

The limited number of bedding readings taken indicate extensive offset faulting of the synclinal axis.

Numerous multiple glacial striae were located throughout the mapped area, indicating recent glacial activity within the Alfred River Valley. This valley is broad and lacking in significant topographic variation. Although there is no outcrop on the surrounding hills, the creeks and rivers contain at least 50% outcrop. This, together with the lack of observed gravel banks, suggests a lack of Tertiary fluvial gravels or fluvio-glacial gravel development. However it is possible that the thick clays overlying the pelites are glacial lake (or varve) deposits.

5.3 Geochemistry

A stream sediment sampling programme was undertaken by the author within the central part of the Huskisson Syncline. Stream sediments collected were dried and sieved to -80# and assayed for Sn, As, WO_3, Cu, Pb and Zn. Panned concentrates were pulverised whole and assayed for Cr, Sn, As, WO_3, Cu, Pb, Zn and Au. Sample descriptions and assays are given in Appendix 2, and assays are presented on Figures 3 to 18.

A microscopic description of a panned concentrate (number 7973) is presented in Appendix 5.

Stream sediment assays indicate the area is not significantly anomalous in As, WO_3, Cu, Pb and Zn. Assays for As, WO_3, Cu and Pb are less than 30 ppm, whereas Zn has a higher background of 30 to 80 ppm. Sn assays are generally less than 30 ppm except for one strongly anomalous drainage area of 1.6km x 1.2km, east of the Alfred River, within the southern part of E.L.

17/77. Panned concentrates from this area also contained a high proportion of chromite (highest assay 32.8% Cr) indicating an association of the cassiterite with the chromite. No mafic outcrops which might represent a source for the chromite, were found within this area. Minor fine chromite was found within one of the rock samples presented for petrological description. This suggests that erosion of an ultramafic source may have occurred during Devonian sedimentation.

Anomalous Au assays (up to 21.0 ppm Au), within panned concentrates, were found to be associated with high Sn assays obtained from the western side of the anomalous zone. These Au values may reflect hydrothermal fracture controlled mineralisation as the samples were taken in the vicinity of a major north-east trending fault structure (see Figure 2).

Elevated values of Sn within panned concentrates occur elsewhere in the Huskisson Syncline, however stream sediments within these drainages are not significantly anomalous. These anomalies may indicate scattered, uneconomic vein-style mineralisation.

5.4 Discussion

This programme has confirmed and enhanced the exploration interest of the Alred River anomalous area. The elevated tin values could originate from one of two sources:

(1) Detrital cassiterite, probably in glacial or Teritary fluvial gravels.

(2) Hydrothermal tin mineralisation.

The following comments are relevant:

(1) The Devonian Bell Shale may include some carbonate horizons. The Amber Shale, lower in the sequence contains a carbonate horizon in the immediate Huskisson Syncline area. In addition, one calcareous shale sample was obtained in the recent sampling programme. Stanniferous carbonate replacement mineralisation is therefore a viable target in this area.

(2) The C.M.S. petrological report (Appendix 5) suggests that the cassiterite may not have travelled very far: "occasional crystal faces (are) preserved". Furthermore most cassiterite grains are"dark, smoky, amber-brown, characteristic of meta-somatic tin deposits......" Given the distance between this area and Renison, the nearest, major metasomatic tin deposit, one might have expected the Meredith Granite to be the most likely tin source. Therefore the cassiterite may have been derived locally from hydrothermal tin deposit.

(3) Although there is no outcropping hydrothermal alteration, the central part of the source area is virtually devoid of outcrop. This area may conceal a major tin deposit.

(4) Despite the foregoing, the available information is suggestive of some kind of alluvial (or glacial?) tin concentration. Firstly, none of the typical "halo elements" are associated with the anomaly i.e. As, Pb, Zn; if there is a hydrothermal tin orebody here, it is chemically different from all of the other documented West Tasmanian deposits.

Secondly, the association of cassiterite with chromite suggests that the two heavy minerals to be found in the surrounding hinterland have been concentrated together by some alluvial process.

In summary, the Alfred River anomaly may represent either hydrothermal tin deposit or a significant alluvial concentration of cassiterite and chromite. Further work is required to determine which alternative is correct.

6. LAUREL CREEK AREA (A.J. Cartwright)

During the 1983-84 field season, all exploration programmes performed in this area were, like those of previous seasons, entirely helicopter supported. This season's work consisted of a five hole drilling programme, together with the prerequisite field surveys, as recommended in the 1983 Annual Report (Cartwright, 1983). The field surveys which included ground magnetics and auger sampling, were performed to decide the final targets for two of the holes. Helipad and drill platform clearance and construction was begun approximately one week ahead of the first drill hole and the four to five contractors employed on this job were able to keep ahead of the drilling. The entire programme at Laurel Creek lasted for 6 weeks during January-February 1984 and 477m of drilling was completed.

6.1 Geochemistry and Geophysics

6.1.1 Laurel Creek West

Contractor, N. Poltock was employed to cut and bedrock sample (power auger) two short cross lines at Laurel Creek West. On line 1800N, an east-west oriented zone of skarn and metasomatised country rock, with an associated magnetic anomaly, had been defined in the 1982/83 field season with two, short, north-south cross lines. Previous mapping (Roberts and Martin, 1982) had shown that similar rocks existed some 250m further east. It was decided (Cartwright, 1983) to test this area with two further cross lines and, using the results from all four cross lines, plan a drill hole.

The two lines, 525E and 650E were surveyed with ground magnetics immediately after they had been cut. Line 525E showed a small, distinct magnetic anomaly over the interpreted skarn zone position. This line was then sampled, using a power auger, at 12.5m intervals between 1700N and 1800N (over the magnetic anomaly). The magnetic survey over line 650E produced a flat response, however, and as a result, was not sampled. The results of the magnetics are shown on Figure 19 and given in Appendix 3.

The bedrock samples taken from 525E were analysed for Sn, As, Cu, Pb, Zn and WO_3. All of the values recorded (except for WO_3) were elevated around the 50 ppm level on the magnetic anomaly. Sn and As were particularly elevated, reaching maxima of 3720 ppm and 1460 ppm respectively. Full geochemical results are shown on Figure 19 and are given in Appendix 2.

A comparison of the four completed cross lines (Figures 19 and 23) reveals that two of the lines, 525E and 400E have much stronger magnetic and geochemical responses than the other two. Line 400E has a broader, stronger magnetic anomaly than 525E and its geochemistry is also broader, with a higher overall level. Using these results, the last drill hole, W.R.5, was positioned to test the anomaly on line 400E.

6.1.2 Laurel Creek East

A ground magnetic survey was carried out over a proposed drill-line on line 1200N. As the strike of the anomaly inferred to represent skarn or metasomatised sediments, occurs at an oblique angle to this line, it was decided (Cartwright, 1983) to test the anomaly perpendicular to strike, i.e. drill at an oblique angle to Line 1200N. A short magnetic survey over the drill line repeated the known anomaly indicating its position on the drill section. The collar position of W.R.3 was located to test this anomaly. The detailed results of the survey are given in Appendix 3 and the drill-line plot is drawn together with the original line 1200N response on a composite line profile in Figure 20.

6.2 Drilling

A total of five holes were completed at Laurel Creek in 1983/84; three at Laurel Creek East and two at Laurel Creek West. The entire drilling programme was helicopter-supported, with the contract drillers (A.D.D.) being flown to and from Zeehan six days a week. The holes were drilled with a Longyear Hydracore 28 rig.

Individual hole summaries are given below; for more detailed logs, see Appendix 4. Drill sections with interpretative geology are shown on Figures 20 to 23. All the drill hole collars were located by a tape and compass survey tied to the Laurel Creek Grid baselines. Although the baselines have been surveyed, they have not been tied in to a recognised survey station. As a result, the collar positions of the holes are only approximately located with respect to the Australian Mapping Grid.

W.R. 1

Collar Co-ordinates: (L.C.E. Grid) 795N, 455E.
Inclination: - 45°
Bearing (AMG): 056°
Depth: 120.0m
Abbreviated Log :

0.0 - 29.4	Alluvium of Gordon Limestone and Crotty Quartzite.
29.4 - 78.5	Gordon Limestone. Unaltered
78.5 - 88.3	Massive magnetite skarn
88.3 - 120.0	Meredith Granite, weakly altered and medium grained.

Assays: 78.5-87.3 (8.8m), 50.7% Fe, <0.01% Sn,<0.01% WO_3

W.R. 2

Collar Co-ordinates: (L.C.E. Grid) 1350N, 110E
Inclination: -46°
Bearing (AMG): 326°
Depth: 96.0m
Abbreviated Log:

0.0 - 26.5	Alluvium of Gordon Limestone and Crotty Quartzite.
26.5 - 63.0	Unaltered Gordon Limestone with deeply weathered zones.
63.0 - 82.5	Magnetite-actinolite-garnet skarn.

82.5 - 96.0	Meredith Granite, medium grained and weakly altered.

Assays: 63.0-71.5 (8.5m), 0.35% Sn, 0.07% Sol. Sn, 0.17% WO_3, 34.3% Fe.

W.R. 3

Collar Co-ordinates: (L.C.E. Grid) 1190N, 360E.
Inclination: -42°
Bearing (AMG): 014°
Depth: 93.0m
Abbreviated Log:

0.0 - 81.0	Alluvium of weathered Meredith Granite, Crotty Quartzite, calc-silicate and gossanous magnetite skarn.
81.0 - 93.0	Incipiently weathered Meredith Granite, intensely altered.

Assays: No significant assays.

W.R. 4

Collar Co-ordinates: (L.C.W. Grid) 1210N, 285W
Inclination: -50°
Bearing (AMG): 269°
Depth : 63.0m
Abbreviated Log:

0.0 - 32.6	Alluvium of weathered Gordon Limestone, Crotty Quartzite and Meredith Granite.
32.6 - 39.0	Strongly weathered, limonitic, magnetite-actinolite-garnet-sulphide skarn.
39.0 - 63.0	Weathered, unaltered, medium grained Meredith Granite.

Assays: 32.6 - 36.0 (3.4m), 0.13% Sn, 0.02% WO_3, 0.18% Cu, 0.17% Pb, 0.14% Zn, 0.07% Fe, 4 ppm Ag, <0.01% Sol. Sn.

W.R. 5

Collar Co-ordinates: (L.C.W. Grid) 1684N, 405E
Inclination: -55.0°
Bearing: (AMG): 359°
Depth: 105.0m
Abbreviated Log:

0.0 - 63.0	Weathered alluvium of Crotty Quartzite.
63.0 - 66.0	Weathered, limonitic Crotty Quartzite.
66.0 - 90.7	Strongly weathered skarn and calc-silicate.
90.7 -105.0	Unaltered Meredith Granite.

Assays: 66.0-73.0 (7.0m) 0.65% Sn, 0.14% Sol. Sn, 0.01% WO_3, 43.2% Fe.

A geological (interpretative) map of the Laurel Creek area, revised from Cartwright (1983), incorporating this season's drilling results, is shown on Figure 24. The only changes from the previous map occur in the areas drilled.

When the assay results of drilling became available, selected drill core samples from the sections returning significant tin and/or tungsten values were sent to CMS for petrographic descriptions.

The CMS report is given in full in Appendix 5, but in brief indicates the following:

(1) No cassiterite was detected.

(2) The source of the tungsten remains unclear.

(3) Ludwigite-hulsite and ilvaite, both known to accept tin into their crystal structures are present.

(4) Much of the skarn material consists of goethite and ferruginous clays.

6.3 Discussion

The preparation, planning and organisation of the drilling at Laurel Creek this season was particularly successful, however the drilling results were not, despite the encouraging assay results. The major problems with the drilling results were:

(1) Poor core recoveries. Unfortunately, insufficient core was obtained from the critical portions of the holes. This was due mainly to the deep weathering profile encountered. Also, an attempt was made to recover the drill cuttings from the alluvials. Despite the use of a casing advancer, this proved to be both difficult and highly inaccurate in terms of a representative sampling procedure.

(2) Deep alluvials. During the programme, it soon became obvious that the alluvial deposits were approximately 7 or 8 times thicker than expected. As a result some of the holes drilled through the strongly weathered caps of the skarns. Also, these skarn zones were found to be actually thinner than predicted.

(3) Mineralogy. The petrographic descriptions of CMS entirely negate the relatively optimistic

view provided by the assay results. The skarn/metasomatised zones appear to have a complex mineralogy including tin-bearing silicates and borates, and possibly ultrafine cassiterite (<1 μm) which would be metallurgically very difficult, if not impossible, to treat. The interpretative geology of the area (Figure 24) is now thought to consist of a series of thin, metasomatised, hydrothermally altered limestones and calcareous horizons in quartzite on the Meredith Granite margins. Sub-outcropping Gordon Limestone is inferred on the western edge of the Laurel Creek West Grid but not on the northern edge where there is calcareous Crotty Quartzite. This represents a return to the geological interpretation of Roberts and Martin (1982).

7. TADPOLE HILL AREA (A.J. Cartwright)

During January, 1983, a day was spent with Dr. P. Collins (Mines Dept.) at Tadpole Hill. Detailed mapping and sampling was carried out in order to better define the potential mineralisation of the area.

7.1 Geology and Alteration

The emphasis of the field examination was towards the alteration/mineralisation rather than geology of the granite. Figure 25 shows the alteration zones mapped this season, together with the interpretative geology from previous field programmes (Roberts and Martin, 1982).

Essentially, the granite consists of two main phases, Dg-1 and Dg-2. Dg-1, the predominant phase, is a coarse grained adamellite and Dg-2, which appears to intrude Dg-1 as dykes and sills, is a fine grained, porphyritic granite.

The alteration at Tadpole Hill consists of two types; an argillic alteration zone and a tourmalinised zone. The argillic zone is characterised by areas of no outcrop underlain by altered granite (fresh granite exposures are abundant) and occurs in an irregular, elongate pattern. The tourmalinised granite zones occur as two ovoid features (Figure 25), generally surrounded by argillised granite, although transitions straight into fresh granite exist. Much of the fresh granite in proximity to the altered phases contain sheeted tourmaline veins and nodules. The tourmalinised granite consists of both green and black tourmaline veins and tourmaline bearing argillised granite.

A total of five rock chip samples were taken, all from green tourmaline vein material within the tourmalinised granitic zones. A maximum value of 750 ppm Sn was obtained in a sample from the shaft in an old trench (1800) and all five samples contained between 260 and 750 ppm Sn. Complete assays are given in Appendix 2, and the sample locations are shown on Figure 25.

7.2 Discussion

The potential for economic tin mineralisation at Tadpole Hill appears to lie within the tourmalinised zones. As a result of mapping this season, two such zones have been outlined with a moderate degree of certainty as to their surface extent . A rapid calculation of their areas, combined with an optimistic assumption that the tourmalinisation extends to a depth of 100m, indicates a potential tonnage of 13 million tonnes of tourmalinised granite. Also, further tourmalinised zones may occur concealed beneath argillised granite, which could possibly add to this figure. However, the very poor tin assay results obtained in this programme leaves only the assay information from Comstaffs trench sampling (Piggott, 1973) which recorded a maximum of 0.25% Sn over part of one trench.

Geologically, the area remains enigmatic. It is difficult to tie the observed alteration zone pattern in with granite geology. The alteration appears to be related more towards possible structural features. The alteration and tourmalinisation is almost entirely confined to Dg-1 (See Figure 25) possibly indicating that Dg-2 is in some way associated with the alteration-tourmalinisation. ?

8. CONCLUSIONS AND RECOMMENDATIONS

8.1 Alfred River

Stream sediment sampling in this area in 1983/84 has revealed a broad zone of anomalous tin values which may either reflect hydrothermal tin mineralization or an alluvial (or ?glacial) cassiterite deposit.

The following programme is proposed to follow up this anomaly in 1984-85 (Figure 26) :

(1) The source area of the geochemical values should be covered by a cut grid with lines 200m apart, totalling approximately 12 line km.

(2) Geochemical sampling should be carried out over the grid with a power auger. Bedrock samples should be taken every 25m to test for primary tin mineralisation. In addition, the entire soil/alluvium profile should be sampled and geologically examined every 50m so that the alluvial tin potential of the area is adequately tested.

(3) The grid should be covered by ground magnetics to test for either pyrrhotite mineralisation or an ultramafic body which may explain the presence of the chromite.

This work is expected to cost $63,400 (Appendix 1).

8.2 Laurel Creek

The Laurel Creek drilling showed the following:

(1) The skarn zones are thinner than expected (approximately 10 to 15m true thickness).

(2) The Quarternary - Tertiary (?) alluvium is thicker, especially in Laurel Creek East (Webbs Creek) where it is between 30m and 60m deep.

(3) The petrography of the skarns indicates that metallurgical processing of this rock would be extremely difficult.

Any economic potential the skarns may have possessed, is virtually eliminated by their complex tin mineralogy. However the other zone of interest at this prospect, the deep alluvials of Laurel Creek East, represents a possible target for economic alluvial cassiterite accumulation which remains untested at this stage. Apart from this, it is felt that the Laurel Creek area overall has little or no remaining prospectivity for medium to high grade, medium tonnage tin deposits. Consequently, no further work is recommended on this prospect.

8.3 Tadpole Hill

The results of this season's field programme at Tadpole

Hill have not greatly affected the mineralisation potential of the area. A zone of tourmalinised granite known to host tin mineralisation has been delineated on the surface. If this zone has a significant depth extent, then a moderately large deposit (around 10 million tonnes) of tourmalinised granite is possible here. However, within the tourmalinised granite, tin grades are patchy, probably because the cassiterite occurs in small veinlets in the altered granite. The patchiness of the zone reduces its exploration potential and, as the maximum value obtained so far, is only 0.25% Sn, a significant grade increase would have to occur for the zone to be of real interest. At this stage the only remaining avenue of exploration would be to test the tourmalinised zone at depth, by drilling. It is felt however, that there is little likelihood of the weakly developed mineralisation of this zone being higher grade at depth. In addition, given the depressed nature of the tin market and the likelihood it will remain depressed for some time, this style of target is now regarded unfavourably. Consequently no further work is recommended for this area.

9. REFERENCES

Cartwright, A.J, 1983: E.L. 17/77 Wilson River Area, Annual Report, 1983-84. Unpublished Report, G.F.E.

Martin, L.A., 1981: E.L. 17/77 Wilson River Area, Annual Report 1980-81, Unpublished Report, Renison Ltd.

Piggott, G.F., 1973: Meredith Granite Project. 1972-73. Summer Field Season Report, Comstaff Pty. Ltd.

Roberts, P.A. and Martin, L.A., 1982: E.L. 17/77 Wilson River Area, Annual Report, 1981-82, Unpublished Report, G.F.E.

Ross, A.F., 1980: E.L. 17/77 Wilson River Area, Annual Report, 1979-80. Unpublished Report, Renison Ltd.

Schellekens, R., 1978: E.L. 17/77 Wilson River Area, Progress Report 1978. Unpublished Report, Renison Ltd.

Wells, K., 1979: E.L. 17/77 Wilson River Area, Annual Report 1978-79. Unpublished Report, Renison Ltd.

APPENDIX 1

Expenditure 1983-84

Proposed Budget 1984-85

EXPENDITURE

(14 months to end August, 1984)

Geology	$
- Salaries	16,057
Salary on-costs	1,069
Transport	46
Miscellaneous	10
Outside Contractors	832
Travel	949
Stores	1,320
	20,283
Geophysics	
- Outside Contractors	500
Geochemistry	
- Transport	6,917
Assays	2,085
Outside Contractors	5,535
	14,537
Drilling	
- Tranpsort	29,000
Assays	1,522
Outside Contractors	26,083
Stores	1,266
	57,871
Land Acquisition	1,995
Site Preparation	
- Outside Contractors	7,812
Stores	189
	8,001
Indirect Motor Vehicle Expenses	769
	103,949

027

281028

BUDGET 1984-85

	$
Geology	
- Salaries	12,000
On Costs	700
Transport/miscellaneous	200
Outside Contractors	2,500
Travel	500
Stores	500
	16,400
Geophysics	
- Outside Contractors	3,500
Transport	2,000
	5,500
Geochemistry	
- Analysis	10,000
Outside Contractors	12,000
Transport	4,000
Stores	500
	26,500
Land Acquisition	
- Miscellaneous	1,800
Site Preparation	
- Outside Contractors	6,000
Transport	6,000
	12,000
Indirect Motor Vehicle Expenses	1,200
TOTAL	63,400

GOLD FIELDS EXPLORATION PTY. LIMITED

281029

APPENDIX 2

Sample descriptions and assay results

GOLD FIELDS EXPLORATION PTY. LTD. **SAMPLE RECORD AND ANALYTICAL DATA SHEET**

COLLECTED BY: D.K.

PROJECT: EL 17/77 PROSPECT: WILSON RIVER SAMPLE STORAGE REQ'D: LABORATORY: RENISON DATE DISPATCHED: FEB 84

1:250,000 SHEET: TYPE OF SAMPLE: STREAM SEDIMENT SAMPLE PREP. REQ'D: ANALYSIS REQ'D: DATE RECEIVED:

SAMPLE NUMBER	LOCATION		DESCRIPTION	ANALYSES								
				Sn	As	WO_3	Cu	Pb	Zn			
7967	5,382,900N	367,480E	gravel (slst) + sand + mg blk mineral cromite?	70	<10	20	5	10	30			
7968	5,383,020N	367,530E	clay + qtz gravel, no blk min.	20	10	20	15	30	80			
7969	5,383,100N	367,570E	course to fine qtz c̄ blk min	1860	<10	20	<5	20	80			
7970	5,383,150N	367,630E	clay 50% - course gravel 50%	<10	<10	10	10	20	110			
7971	5,383,220N	367,680E	qtz gravel + blk min. cromite	145	<10	10	5	10	50			
7972	5,383,290N	367,720E	qtz " , no " "	<10	<10	10	5	<10	50			
7974	5,383,280N	367,770E	Sand + cromite?	300	<10	10	5	<10	40			
7975	5,383,250N	367,920E	slst gravel	10	<10	10	<5	<10	20			
7976	5,383,230N	367,880E	sstone + slst gravel c̄ blk mineral	580	<10	30	10	10	40			
7977	5,383,140N	368,050E	fine sand + blk min	420	<10	10	10	40	40			
7978	5,383,105N	368,120E	brn sand + clay + coarse blk min.	130	<10	10	10	10	50			
7979	5,382,980N	368,210E	gray clay + minor qtz + blk min min.	30	<10	20	10	20	130			
7980	5,382,960N	368,200E	qtz gravel + fine blk min.	750	<10	20	5	10	40			
7981	5,382,870N	368,200E	fine gravel + coarse qtz + blk min.	1460	10	30	5	10	50			
7982	5,382,790N	368,220E	brn clay + minor gravel	30	10	10	10	20	180			
7983	5382,750N	368,280E	qtz gravel + minor blk min.	1160	<10	30	<5	10	60			
7984	5,383,420N	367,720E	fine sand + clay	<10	<10	10	<5	<10	40			
7985	5,383,700N	367,640E	gravel - minor fine fraction	20	<10	<10	5	<10	50			
7986	5,383,710N	367,660E	50% qtz gravel + sand, 40% slst gravel 10% clay	10	<10	20	10	10	70			
7987	5,384,010N	367,580E	40% " " " 40% " " 20% clay	<10	<10	10	5	10	40			
7988	5,384,140N	367,630E	90% fine sand + clay 10% humus	<10	<10	10	5	10	70			

281030

GOLD FIELDS EXPLORATION PTY. LTD.

SAMPLE RECORD AND ANALYTICAL DATA SHEET

COLLECTED BY: P. Komyshan

PROJECT: EL 17/77 PROSPECT: WILSON RIVER SAMPLE STORAGE REQ'D: LABORATORY: DATE DISPATCHED: FEB '84

1:250,000 SHEET: TYPE OF SAMPLE: STREAM SEDIMENT SAMPLE PREP. REQ'D: −80# ANALYSIS REQ'D: DATE RECEIVED:

SAMPLE NUMBER	LOCATION		DESCRIPTION	ANALYSES								
				Sn	As	WO_3	Cu	Pb	Zn			
7989	5,384,150N	367,600E	80% quartz + slst gravel	<10	<10	10	5	10	60			
7990	5,384,210N	367,440E	80% fine sand + clay 20% humus	<10	<10	<10	<5	<10	20			
7991	5,384,230N	367,480E	qtz + slst gravel	<10	<10	10	5	<10	50			
7992	5,384,380N	367,600E	slst gravel 30-40%, fine sand + clay 60-70%	<10	<10	10	10	10	40			
7994	5,384,550N	367,500E	95% fine sand + clay, 5% humus.	<10	<10	<10	10	<10	110			
7995	5,384,600N	367,510E	slst gravel, minor fines.	<10	<10	10	5	<10	60			
7996	5,384,770N	367,650E	10-20% gravel, 80-90% clay + sand fines.	10	<10	10	5	<10	60			
7997	5,384,930N	367,800E	fine sand + clay	<10	<10	10	<5	10	40			
7998	5,384,950N	367,850E	80% slst gravel, 20% fine sand + clay	10	<10	10	<5	<10	60			
9816	5,383,260N	368,110E	brn sand 40%, clay 50%, humus 10%	40	10	10	10	<10	170			
9817	5,383,250N	368,160E	90% qtz gravel, 5-10% clay	20	<10	20	<5	30	40			
9818	5,383,230N	368,210E	40% shale gravel, 30% quartz gravel, 20% clay	20	<10	10	5	30	70			
9819	5,383,330N	368,360E	80% qtz gravel, 20% clay	10	<10	10	5	30	50			
9820	5,383,330N	368,570E	98% clay	<10	<10	<10	5	30	20			
9821	5,383,220N	368,690E	70% clay, quartz gravel 30%	20	<10	<10	<5	30	20			
9822	5,383,140N	368,720E	50% qtz gravel, 50% clay	20	<10	10	<5	20	10			
9823	5,382,990N	368,860E	80% slst gravel, 20% clay	20	<10	<10	5	20	40			
9824	5,382,920N	368,820E	60% quartz gravel, 30% slst gravel, 10% clay	10	<10	10	<5	20	10			
9825	5,383,210N	368,600E	60% sand, 30% clay, 10% humus	10	<10	10	<5	20	10			
9826	5,383,100N	367,530E	gry sand + gravel	<10	<10	<10	5	30	30			
9827	5,383,030N	367,510E	pink qtz sand + gravel	10	<10	<10	<5	20	20			

GOLD FIELDS EXPLORATION PTY. LTD. **SAMPLE RECORD AND ANALYTICAL DATA SHEET**

COLLECTED BY: P. KOMYSHAN

PROJECT: EL 17/77 PROSPECT: WILSON RIVER SAMPLE STORAGE REQ'D: LABORATORY: RENISON DATE DISPATCHED:

1:250,000 SHEET: TYPE OF SAMPLE: STREAM SEDIMENT SAMPLE PREP. REQ'D: -80# ANALYSIS REQ'D: DATE RECEIVED:

SAMPLE NUMBER	LOCATION		DESCRIPTION	ANALYSES								
				Sn	As	WO3	Cu	Pb	Zn			
9828	5,333,040N	367,470E	fine pink sand + gravel alluvial terrace?	20	<10	<10	10	30	<10			
9829	5,332,990N	367,410E	pink sand + ss pebbles clay + minor blk min	20	<10	<10	5	20	<10			
9830	5,332,870N	367,330E	pink sand, ss + blk min	40	<10	10	<5	20	<10			
9831	5,332,820N	367,300E	pink sand + ss	<10	<10	10	5	20	<10			
9832	5,335,110N	367,920E	gravel + clay	<10	<10	10	<5	30	30			
9834	5,335,040N	367,840E	slst gravel	10	<10	10	10	20	60			
9835	5,334,690N	367,560E	50% gravel + sandy fines	10	<10	10	5	10	110			
9836	5,334,640N	367,570E	60% slst gravel + 40% fine sand	10	<10	10	<5	<10	40			
9837	5,334,240N	367,470E	60% slst gravel + 40% "	<10	<10	<10	<5	<10	10			
9838	5,334,210N	367,480E	clay + fine sand	10	<10	10	5	10	50			
9840	5,334,550N	367,330E	60-70% qtz gravel + sand	10	<10	<10	5	20	30			
9841	5,334,610N	367,260E	30% slst	10	<10	10	5	30	20			
9842	5,334,710N	367,240E	70% clay 10% humus 20% qtz + slst gravel	10	<10	<10	<5	<10	20			
9843	5,334,800N	367,120E	60% qtz + sand 40% slst	10	<10	10	<5	<10	10			
9845	5,384,990N	366,840E	70-80% slst gravel 20-30% fines (clay)	<10	<10	10	<5	<10	40			
9846	5,385,050N	366,770E	50% slst, 40% clay, 10% qtz	20	<10	10	<5	<10	40			
9847	5,385,200N	366,650E	gravel + sand.	10	<10	<10	<5	<10	20			
9849	5,385,110N	366,400E	slst gravel c̄ minor qtz few fines	10	<10	10	<5	<10	20			
9850	5,395,010N	367,540E	70% clay, 30% slst frags	10	<10	10	10	20	90			
9852	5,385,030N	367,390E	80% clay 15% slst frags 5% humus	20	<10	10	10	10	60			

281032

032

GOLD FIELDS EXPLORATION PTY. LTD. **SAMPLE RECORD AND ANALYTICAL DATA SHEET**

COLLECTED BY: P. KOMYSHAN

PROJECT: EL 17/77 PROSPECT: WILSON RIVER SAMPLE STORAGE REQ'D: LABORATORY: RENISON DATE DISPATCHED:

1:250.000 SHEET: TYPE OF SAMPLE: STREAM SEDIMENTS SAMPLE PREP. REQ'D: -80 # ANALYSIS REQ'D: DATE RECEIVED:

SAMPLE NUMBER	LOCATION		DESCRIPTION	ANALYSES								
				Sn	As	WO3	Cu	Pb	Zn			
9853	5,385,040N	367,370E	slst gravel	10	<10	<10	10	30	120			
9854	5,385,050N	367,340E	85% clay 15% slst frag	10	<10	10	5	30	60			
9855	5,385,150N	367,140E	90% clay 5% slst frag 5% humus	<10	<10	10	5	20	20			
9856	5,385,240N	367,130E	slst gravel	10	<10	10	15	<10	40			
9857	5,385,260N	367,110E	" "	10	<10	10	10	<10	90			
9859	5,385,620N	367,170E	" "	10	<10	20	15	10	120			
9860	5,385,670N	367,160E	50% clay, 50% blk/brn slst frag.	10	<10	10	15	<10	80			
9861	5,385,990N	367,320E	85% clay, 15% slst frag	10	<10	10	10	<10	70			
9862	5,386,070N	367,330E	70% slst gravel, 30% clay	10	<10	10	10	<10	110			
9863	5,386,090N	367,390E	slst gravel	10	<10	10	10	<10	120			
9867	5,386,140N	367,790E	90% clay 10% humus	10	<10	10	5	<10	50			
9868	5,386,440N	367,780E	slst gravel few fines.	10	<10	30	10	<10	70			
9869	5,385,630N	368,170E	slst " " "	10	<10	10	10	<10	70			
9870	5,385,650N	368,220E	" "	10	<10	10	10	<10	60			
9873	5,385,640N	368,220E	" "	10	<10	20	15	<10	100			
9874	5,385,600N	368,380E	30-60% clay 40-50% slst r.f.	10	<10	10	10	<10	50			
9875	5,385,420N	368,520E	slst gravel	20	<10	<10	5	<10	60			
9876	5,385,700N	368,660E	60% clay, 40% slst r.f.	<10	<10	10	10	<10	20			
9877	5,385,720N	368,640E	slst gravel	20	<10	10	5	<10	30			
9902	5,384,070N	368,640E	clay 50%, gravel 40-50%	<10	<10	10	10	<10	100			
9903	5,388,650N	368,730E	slst gravel	<10	<10	10	10	10	150			

281033

GOLD FIELDS EXPLORATION PTY. LTD. **SAMPLE RECORD AND ANALYTICAL DATA SHEET** COLLECTED BY: P. KOMYSHAN

PROJECT: EL 17/77 PROSPECT: WILSON RIVER SAMPLE STORAGE REQ'D: LABORATORY: RENISON DATE DISPATCHED:

1:250,000 SHEET: TYPE OF SAMPLE: STREAM SEDIMENT SAMPLE PREP. REQ'D: −80# ANALYSIS REQ'D: DATE RECEIVED:

SAMPLE NUMBER	LOCATION		DESCRIPTION	ANALYSES								
	N	E		Sn	As	WO3	Cu	Pb	Zn			
9904	5,388,140N	363,850E	90% brn clay 10% slst gravel.	<10	<10	10	10	<10	90			
9905	5,388 650N	364,090E	60-70% slst gravel, 40-30% fine sand & clay	<10	<10	10	5	<10	60			
9906	5,387,570N	364,150E	50% slst gravel 50% fine sand & clay	<10	<10	<10	5	<10	40			
9907	5,387030N	364,110E	" " " " " " "	<10	<10	10	10	<10	30			
9908	5,386,990N	364,130E	fine sand + clay	<10	<10	<10	10	<10	20			
9909	5,388,070N	364,120E	pink fine sand 5% gravel	<10	<10	<10	<5	<10	20			
9911	5,338,180N	364,090E	60% gravel ss/slst 40% sand + clay	<10	<10	<10	<5	<10	30			
9914	5,338,150N	364 050E	gravel slst, minor fine sand + clay	<10	<10	<10	10	<10	110			
9915	5,384,170N	363,820E	clay	<10	<10	10	5	<10	40			
9916	5,386,080N	368,340E	70% clay, 30% slst gravel	<10	<10	10	10	<10	30			
9917	5,386 080N	368,310E	slst gravel	<10	<10	10	10	<10	100			
9918	5,386 420N	368,310E	30% qtz gravel, 30% slst gravel 40% clay	<10	<10	10	5	<10	40			
9919	5,386 710N	368,210E	30% slst gravel, 50% brn clay	<10	<10	20	10	<10	90			
9920	5,387,050N	363,250E	40% slst " , 30% qtz gravel, 30% clay	<10	<10	10	15	50	50			
9921	5,387,150N	368,290E	30% " " , 30% clay, 20% qtz gravel	10	<10	10	10	40	90			
9922	5,387,440N	368 490E	60% " " , 40% "	<10	<10	10	10	40	80			
9923	5,387,590N	368,480E	50% " " , 50% "	10	<10	10	10	60	90			
9924	5,387,580N	368,450E	70% clay 30% slst gravel	10	<10	10	10	40	80			
9925	5,387,600N	368,430E	90% clay, 5% slst gravel, 5% humus	<10	20	20	10	30	40			
9926	5,387,570N	368,020E	60-70% clay 40-30% slst gravel	10	<10	<10	5	50	90			
9927	5,387,530N	368 0[illegible]E	80% clay, 20% weathered slst	<10	<10	20	10	30	60			

034

GOLD FIELDS EXPLORATION PTY. LTD. **SAMPLE RECORD AND ANALYTICAL DATA SHEET**

COLLECTED BY: P. KOMYSHAN

PROJECT: EL 17/77 PROSPECT: WILSON RIVER SAMPLE STORAGE REQ'D: LABORATORY: RENISON DATE DISPATCHED:

1:250,000 SHEET: TYPE OF SAMPLE: STREAM SEDIMENT SAMPLE PREP. REQ'D: -50 # ANALYSIS REQ'D: DATE RECEIVED:

SAMPLE NUMBER	LOCATION		DESCRIPTION	ANALYSES								
				Sn	As	WO_3	Cu	Pb	Zn			
9928	5,387,470N	367,920E	60% clay, 40% slst frags c̄ qtz	10	<10	10	15	40	90			
9929	5,386 980N	367,980E	50% clay, 50% slst gravel	10	10	10	10	60	110			
9930	5,386, 540N	367,850E	50% clay, 45% " ", 5% humus	10	<10	10	10	50	130			
9931	5,386, 280N	367,580E	70% slst gravel, 30% fines + clay	10	<10	10	10	50	120			
9934	5,387,220N	367,830E	70% clay, 30% slst gravel	20	<10	20	10	50	100			
9935	5,386,560N	367,470E	70% slst gravel 30% fine sand.	10	<10	10	20	60	140			
9936	5,385,820N	368,200E	60% clay 40% slst gravel.	<10	<10	10	10	50	50			
9937	5,385 780N	363,270E	80% clay 20% slst gravel	<10	<10	10	10	50	70			

281035

GOLD FIELDS EXPLORATION PTY. LTD. **SAMPLE RECORD AND ANALYTICAL DATA SHEET**

COLLECTED BY: P.K

PROJECT: EL 17/77 PROSPECT: WILSON RIVER SAMPLE STORAGE REQ'D: LABORATORY: RENISON DATE DISPATCHED: FEB '86

1:250,000 SHEET: TYPE OF SAMPLE: ROCK SAMPLE PREP. REQ'D: ANALYSIS REQ'D: DATE RECEIVED:

SAMPLE NUMBER	LOCATION		DESCRIPTION	ANALYSES								ANALABS
				Cr	Sn	As	WO3	Cu	Pb	Zn	Zn(sol)	Sn
7924	5,382,470N	367,320E	pple bl gry shale dis. py	<0.01%	40	20	<20	140	20	160	<100	17
7931	5,382,570N	367,370E	bl silstone/shale	0.01%	60	50	20	110	180	250	<100	44
7932	5,382,570N	367,410E	black shale fossiliferous	0.01%	110	90	20	55	320	220	<100	42
7935	5,382,340N	367,560E	bl gry silicified? sandy siltstone	0.03%	40	20	20	80	60	130	<100	40
7936	5,382,220N	367,590E	bl gry siltstone micaceous hornfelsed.	0.04%	25	20	<20	70	60	140	<100	11
7993	5,384,430N	367,520E	brn silty sandstone, fossiliferous.	0.01%	30	30	<20	60	30	70	<100	13
7999	5,385,040N	367,910E	gry blk silstone - fossiliferous.	<0.01%	50	40	<20	75	60	290	<100	57
9910	5,388,080N	369,090E	bl gry slst c̄ multiple direction glacial striae.									
9851	5,385,040N	367,400E	bl/gry slst c̄ minor carbonate.	0.01%	240	230	30	90	40	460	<100	190

281036

GOLD FIELDS EXPLORATION PTY. LTD. **SAMPLE RECORD AND ANALYTICAL DATA SHEET**

COLLECTED BY: P.K.

PROJECT: 17/77 PROSPECT: WILSON R. SAMPLE STORAGE REQ'D: LABORATORY: RENISON DATE DISPATCHED: MAY 84

1:250,000 SHEET: TYPE OF SAMPLE: ROCK + SOIL SAMPLE PREP. REQ'D: ANALYSIS REQ'D: DATE RECEIVED:

SAMPLE NUMBER	LOCATION		DESCRIPTION		ANALYSES								
					Sn	Sn(tot)	As	WO_3	Cu	Pb	Zn		
9978	5,382,680N	367,440E	o/c	blue grey slst lim st. on joints	30	<100	<10	20	30	30	120		
9979	5,382,590N	367,450E	o/c	" " " " "	50	<100	<10	30	25	20	110		
9980	5,382,610N	367,590E	o/c	" " " part hornfelsed?	20	<100	10	20	40	20	180		
9981	5,382,600N	367,615E	o/c	" " "	10	<100	<10	50	50	20	150		
9982	5,382,560N	367,700E	o/c	" green " c̄ lim. st on jts	10	<100	10	30	30	<10	100		
9983	5,382,520N	367,950E	soil	- pale brown	30	<100	<10	30	15	<10	50		
9984	5,382,380N	367,930E	soil	pale brown - green	10	<100	<10	20	10	<10	20		
9985	5,382,410N	367,760E	soil	pale " " clay	20	<100	<10	30	105	<10	30		
9986	5,382,440N	367,750E	o/c	blue grey siltstone	20	<100	<10	30	30	<10	200		
9987	5,382,440N	367,710E	o/c	" " "	20	<100	<10	50	40	<10	170		
9988	5,382,390N	367,680E	o/c	" " "	10	<100	10	30	35	<10	160		
9989	5,382,390N	367,600E	o/c	" "	10	<100	10	50	25	<10	100		
9990	5,382,400N	367,500E	soil	cream brown clay	10	<100	10	20	10	<10	20		
9991	5,382,450N	367,340E	o/c	blue grey siltstone	10	<100	<10	40	25	<10	130		

2810037

037

GOLD FIELDS EXPLORATION PTY. LTD. **SAMPLE RECORD AND ANALYTICAL DATA SHEET**

PROJECT: WILSON RIVER PROSPECT: LAUREL CREEK SAMPLE STORAGE REQ'D: LABORATORY: COLLECTED BY: DATE DISPATCHED: NPK

1:250,000 SHEET: TYPE OF SAMPLE: AUGER SAMPLE PREP. REQ'D: ANALYSIS REQ'D: DATE RECEIVED: 20/1/84

SAMPLE NUMBER	LCW. LOCATION		DESCRIPTION		ANALYSES (ppm)								
					Sn	As	Cu	Pb	Zn	WO_3			
3379	525E	1700N	white - granitic?	6.2m	10	20	35	20	80	10			
3382		1712.5N	red-brown soil	3.2m	3720	1460	115	<10	220	180			
3383		1725N	white - granitic?	6.2m	20	10	65	<10	40	10			
3384		1737.5N	red-brown soil	5.5m	60	30	90	<10	60	590			
3385		1750N	" " "	1.5m	110	40	180	<10	50	30			
3386		1762.5N	white-granite	2.5m	<10	<10	10	20	40	20			
3387		1775N	" "	2.5m	<10	10	5	10	20	30			
3388		1787.5N	" "	6.5m	<10	<10	5	<10	30	20			
3389		1800N	" "	7.0m	<10	10	5	10	30	40			

281038

GOLD FIELDS EXPLORATION PTY. LTD.

SAMPLE RECORD AND ANALYTICAL DATA SHEET

COLLECTED BY: AJC

PROJECT: WILSON RIVER   PROSPECT: TADPOLE HILL   SAMPLE STORAGE REQ'D: LABORATORY: DATE DISPATCHED: 1/84

1:250.000 SHEET: GRID   TYPE OF SAMPLE: CHIP   SAMPLE PREP. REQ'D: ANALYSIS REQ'D: DATE RECEIVED:

SAMPLE NUMBER	LOCATION		DESCRIPTION	ANALYSES								
				Sn	WO_3	Cu	Pb	Zn	Ag			
1799			Green tourmaline vein material from Trench 4 dump.	470	20	15	120	<10	<1			
1800			Green tourmaline veins and tourmalinised granite from shaft in Comstaff Trench.	750	20	55	370	20	<1			
3376	29.5N	415W	5cm thick green tourmaline veins in quartz-tourmaline rock.	550	40	<5	20	<10	<1			
3377			Continuous chip sampling of new trench ~ 25m long	260	20	5	10	<10	<1			
3378			Edge of 0.6m wide tourmaline (green) vein	500	20	5	10	<10	1			

281039

039

APPENDIX 3

Ground magnetics data sheets

040

GROUND MAGNETOMETER SURVEY

LOCATION: LAUREL CREEK EAST GRID

DATE: 17-1-84.

MAGNETOMETER: LINE 1200N

OPERATOR: R.W. /A.J.C.

BASE STATION LOCATION: DRILL LINE, WR 3; STARTING AT 1175N, 360E
BEARING .014°AMG.

Station	Time	Magnetic Reading	Base Reading	Corrected Reading	Cultural Features
350E			62779	62780	
0 (1175N, 360E)		62201	+1	62202	
12·5 N		945		946	
25 N		67079		67080	
37·5N		70158		70159	
50		63887		63888	
62·5N		62613		62614	
75N		428		429	

041

GOLD FIELDS EXPLORATION PTY. LIMITED 281042

GROUND MAGNETOMETER SURVEY PAGE NO: 2

LOCATION: LAUREL CREEK WEST DATE: 17-1-84

MAGNETOMETER: INFILL LINE 525E. OPERATOR: A.C./R.W.

BASE STATION LOCATION: 1900N - 1600N

Station	Time	Magnetic Reading	Base Reading	Corrected Reading	Cultural Features
1900N	2·20	62 222	+11	62 233	
1887·5		228	+12	240	
1875		225	+13	238	
1862·5		228		241	
1850		232	+14	246	
1837·5		224	+15	239	
18[illegible]		226		241	
1812·5		228	+16	244	
1800	2·10	231		247	
1787·5	2·30	224	+17	241	
1775		240	+18	258	
1762·5		313		331	
1750		*see below			
1737·5		089	+20	109	
1725		149		169	
1712·5		059	+21	080	
1700		148		169	
1687·5		169	+22	191	
16[illegible]		170	+23	193	
1662·5		174		197	
1650		184	+24	208	
1637·5		189	+25	214	
1625		189		214	
1612·5		193	+26	219	
1600 N	2·53	62197		62223	
1755N		62493	+19	62512	
1752·5		651		670	
1750		067		086	
1747·5		61711		61730	
1745		794		813	
1742·5		897		916	
1740N		62015		62034	

042

GOLD FIELDS EXPLORATION PTY. LIMITED

281043

GROUND MAGNETOMETER SURVEY

PAGE NO: 3

LOCATION: LAUREL CREEK WEST

DATE: 17-1-84

MAGNETOMETER: INFILL LINE 650E

OPERATOR: R.W. /A.C.

BASE STATION LOCATION: 1900N-1600N

Station	Time	Magnetic Reading	Base Reading	Corrected Reading	Cultural Features
1900N	4·09	62237	-2	62235	
1887·5		46	-1	45	
1875		46		45	
1862·5		50	0	50	
1850		50		50	
1837·5		85	+1	86	
18[illegible]		64		65	
1812·5		73	+2	75	
1800	4·14	77		79	
1787·5		77	+3	80	
1775		79		82	
1762·5		76	+4	80	
1750		61		65	
1737·5		63	+5	68	
1725		39		44	
1712·5		06	+6	12	
1700		19		25	
1687·5		30	+7	37	
[illegible]5		22		29	
1662·5		22	+8	30	
1650		26		34	
1637·5		34	+9	43	
1625		39		48	
1612·5		45	+10	55	
1600N	4·36	62257		62267	

APPENDIX 4

Diamond drill hole logs. Laurel Creek

281045 045

GOLD FIELDS EXPLORATION PTY. LIMITED

DRILL CORE LOG AND ASSAY DATA

PROJECT: WILSON RIVER HOLE NUMBER: W.R. 1 Page: 1.

INTERVAL From	INTERVAL To	RECOVERY m	RECOVERY %	DESCRIPTION	Sample No.	From	To	Rec. %
				SUMMARISED LOG				
0	29.4	1	3	ALLUVIUM. FRAGMENTS OF QUARTZITE AND CALC-SILICATE IN A LIMONITIC, CALCAREOUS MATRIX.				
29.4	78.5	39	79	UNALTERED LIMESTONE CONTAINING MINOR CALC-SILICATE BANDS AND MINOR, THIN, DEEPLY WEATHERED CLAY ZONES.				
78.5	88.3	9.8	100	MASSIVE MAGNETITE SKARN WITH MINOR CALCITE AND AMPHIBOLE.				
88.3	120.0	31.7	100	MEDIUM-COARSE GRAINED, SLIGHTLY PORPHYRITIC GRANITE WITH APLITIC PHASES. WEAKLY ALTERED.				
				DETAILED LOG				
				0-29.4 ALLUVIUM CONSISTING OF QUARTZITE AND CALC-SILICATE SKARN. LIMONITIC AND SLIGHTLY CALCAREOUS.				
0	16.5	0	0	Casing advancer used - no core recovered.				
16.5	29.4	1	8	Alluvium of large cobbles and pebbles of garnet calc-silicate (pink) rock and quartzite in a dark grey clay matrix. Limonite is abundant, coating all fragments. Green (pale) pyroxene skarn also occur with the garnet skarn. The clay has a minor calcareous component.				
				Between 24.0 and 27.0, small shell fossils occur in the quartzite fragments.				
				29.4-78.5 LIMESTONE, UNALTERED WITH MINOR PATCHES OF CALC-SILICATE SKARN, UNWEATHERED TO WEAKLY WEATHERED.				
29.4	55.4	18.7	72	Dark to medium grey limestone. Moderately fractured with 10cm clay zones consisting of brown limonitic calcareous clays developed. Also banded fractures with white calcite vein infillings. Darker, thin bands at 60° CA also occur as styolite-like features				
(29.4-42.0, 5.3m recovered)								

044

281046

HOLE NO. :	WR 1
STATE :	TASMANIA

ULV. PRESS

GOLD FIELDS EXPLORATION PTY. LIMITED

DRILL CORE RECORD

PROJECT	WILSON RIVER
DESIGNED BY	A.J. CARTWRIGHT
LOGGED BY	A.J. CARTWRIGHT
COMMENCED	17-1-84
COMPLETED	23-1-84

PURPOSE

To test for stanniferous skarn in the Gordon Limestone at Laurel Creek East (Line 800N).

LOG SUMMARY / GENERAL COMMENTS

The hole encountered 29.4m of alluvium consisting of Gordon Limestone and Crotty Quartzite. Between 29.4 and 78.5, Gordon Limestone occured and at 78.5, 9.8m of massive magnetite was intersected. At 88.3, the Meredith Granite contact was reached. Core recoveries were poor over the first 42.0m. Significant assays are recorded below.

ASSAY SUMMARY

INTERVAL From	INTERVAL To		Fe (wt.%)										COMMENTS
78.5	87.3	8.8m	50.7										

LOCATION

NORTHING	5392508
EASTING	369392
R.L.	215.0
GRID	A.M.G.
LENGTH	120.0

HOLE CONDITION

SIZE

Hole Size	Depth
HQ	0-16.5
NQ	16.5-57
BQ	57-120

SIGNIFICANT CORE LOSS INTERVALS

From	To	% Lost
16.5	42.0	75

POOR GROUND CONDITION ZONES

From	To	Condition
0	42.0	Alluvium and deep weathered (clay) zones in the limestone

HOLE CONDITIONS AFTER COMPLETION

Black polythene left in hole as marker.

SURVEY DATA (Note: Bearing type must be same as Project Grid Type)

SURVEY Depth	SURVEY Bearing	SURVEY Dip	INTERVAL From	INTERVAL To	INTERVAL Distance	VERTICAL D.Sin.Dip	VERTICAL R.L.	HORIZONTAL D.Cos.Dip	HORIZONTAL Prog.Total
0	056	45.0	0	59.0	59.0	41.7	173.3	41.7	41.7
118	049	50.0	59.0	120.0	61.0	46.7	126.6	39.2	80.9

GOLD FIELDS EXPLORATION PTY. LIMITED

ULV. PRESS

PROJECT: WILSON RIVER

DRILL CORE LOG AND ASSAY DATA

HOLE NUMBER: W.R. 1 Page: 2.

INTERVAL From	INTERVAL To	RECOVERY m	RECOVERY %	DESCRIPTION	Sample No.	From	To	Rec. %	Sn	Cu	Pb	Zn	WO_3	Fe	Bi	Ag (ppm)
				ASSAY DATA (all wt. %).												
				The limestone becomes pale brown in places, possibly containing												
				some calc-silicate.												
				At 51.0, a large zone of pure white limestone is mixed with												
				brown brecciated clays and limestone fragments. This continues												
				for 4.4m.												
55.4	78.5	20.3	88	Grey white and brown limestone. More impure than the previous												
(60.0-66.0, 3.2m recovered)				sequence with moderately well developed jointing. Stylolites												
				occur. The brown is mainly due to limonite, some calc-silicate												
				material is also developed.	11063	72.5	73.5	100	<0.01	0.02	0.01	0.05	<0.01	0.3	<0.001	1
				After 74.5, limestone becomes bleached with several zones of	11064		74.5	"	"	<0.01	"	0.09	"	0.4	"	<1
				strong limonitic staining.	11065		75.5	"	"	0.03	"	0.04	"	0.2	"	"
					11066		76.5	"	"	<0.01	0.16	0.23	"	0.2	"	5
				78.5-88.3 MASSIVE MAGNETITE SKARN CONTAINING MINOR CALCITE AND	11067		77.5	"	"	0.01	0.02	0.03	"	<0.1	"	1
				AMPHIBOLE.	11068		78.5	"	"	<0.01	"	0.05	"	1.9	"	2
					11069	78.5	79.3	"	"	0.06	<0.01	0.02	"	47.2	"	1
78.5	88.3	9.8	100	A sharp contact from the limestone above into magnetite-calcite	11070		80.3	"	"	<0.01	"	0.08	"	48.1	"	"
				skarn. Magnetite forms approx 50% by volume of the rock with	11071		81.3	"	"	0.04	"	0.02	"	51.1	"	<1
				calcite disseminated and veined throughout. Possibly also contains	11072		82.3	"	"	"	"	"	"	47.7	"	3
				minor green amphibole. Talc forms as fracture coatings-rarely.	11073		83.3	"	"	"	"	"	"	48.7	"	1
				Overall, crumbly in places otherwise weakly fractured. Sulphides	11074		84.3	"	"	"	"	0.04	"	50.2	0.005	"
				do not occur except towards the lower end, as veinlets and rare	11075		85.3	"	"	"	"	0.02	"	53.9	0.001	"
				disseminations.	11076		86.3	"	"	<0.01	"	"	"	55.4	<0.001	"
				After 87.5, the massive magnetite only occurs as patches, with	11077		87.3	"	"	0.04	"	"	"	53.7	"	"
				magnetite poor skarn.	11078		88.3	"	"	<0.01	"	"	"	36.7	"	<1
					11079		89.3	"	"	"	"	0.04	"	13.2	"	"
				88.3-120.0 MEDIUM-COARSE GRAINED, WEAKLY ALTERED GRANITE WITH	11080		90.3	"	"	"	"	0.01	"	1.7	"	"
				MINOR APLITIC PHASES.	11081		91.3	"	"	0.02	0.01	"	"	1.0	"	"
					11082		92.3	"	"	<0.01	"	"	"	0.9	"	"
88.3	90.8	2.5	100	Green, medium grained granite. Moderately porphyritic and strongly	11083	92.3	93.3	"	"	"	"	"	"	1.0	"	"
				sericitised. Feldspar and quartz form the phenocrysts. The grain-												
				size is strongly variable with coarse and fine grained patches.												
90.8	98.0	7.2	100	Grey granite. Medium grained overall with large variations in												
				grainsize. Quartz-tourmaline pegmatites occur, biotite rich												

281048

047

GOLD FIELDS EXPLORATION PTY. LIMITED

DRILL CORE LOG AND ASSAY DATA

PROJECT: WILSON RIVER

HOLE NUMBER: W.R. 1

Page: 3.

INTERVAL From	To	RECOVERY m	%	DESCRIPTION	Sample No.	From	To	Rec. %
				accumulations occur. The granite is incipiently altered with pale green sericitised feldspars. Unfractured. Many fine grained-aplitic phases are developed.				
98.0	120.0	22.0	100	Medium-coarse grained, grey-green, weakly porphyritic granite. Textures become uniform, alteration is incipient and fracturing is rare. A sericitised zone occurs at 100.5, otherwise only pale green sericite is developed, replacing a few feldspars. The granite contains phenocrysts of quartz and feldspar.				
				END OF HOLE 120.0m.				

048

281049

HOLE NO:	W.R. 2
STATE	TASMANIA

GOLD FIELDS EXPLORATION PTY. LIMITED

DRILL CORE RECORD

PROJECT	WILSON RIVER
DESIGNED BY	A.J. CARTWRIGHT
LOGGED BY	A.J. CARTWRIGHT
COMMENCED	24-1-84
COMPLETED	28-1-84

PURPOSE

To test for stanniferous skarn in the Gordon Limestone at Laurel Creek East.(Line 1400N).

LOG SUMMARY / GENERAL COMMENTS

After 26.5m of alluvium containing Gordon Limestone and Crotty Quartzite fragments, deeply weathered Gordon Limestone was drilled to 63.0m. Poor core recoveries were obtained to this depth. The next 19.5m consisted of zoned magnetite-actinolite-garnet skarn. At 82.5 the Meredith Granite was intersected. Significant assays are recorded below.

ASSAY SUMMARY

INTERVAL From	INTERVAL To	(wt %)	Sn	WO_3	Fe	Cu	Pb	Zn	Ag (ppm)	Bi	Sol. Sn			COMMENTS
63.0	71.5	8.5m	0.35	0.17	34.3	0.04	<0.01	0.09	0	0.040	0.07			
including:														
63.0	66.0	3.0m	0.54	0.16	46.1	0.05	<0.01	0.17	0	0.010	0.09			
and:														
68.0	69.0	1.0m	0.15	0.78	27.8	0.19	<0.01	0.04	0	0.061	0.03			

LOCATION

NORTHING	5392783
EASTING	368807
R.L.	224.0
GRID	A.M.G.
LENGTH	96.0

HOLE CONDITION

SIZE

Hole Size	Depth
HQ	0- 4.0
NQ	4.0-42.0
BQ	42-96

SIGNIFICANT CORE LOSS INTERVALS

From	To	% Lost
4.0	66.0	76

POOR GROUND CONDITION ZONES

From	To	Condition
0.0	66.0	26.5m of alluvium underlain by deeply weathered (clay filled hollowed out)limestone.

HOLE CONDITIONS AFTER COMPLETION

Black polythene left in hole as a marker.

SURVEY DATA (Note: Bearing type must be same as Project Grid Type)

SURVEY Depth	SURVEY Bearing	SURVEY Dip	INTERVAL From	INTERVAL To	INTERVAL Distance	VERTICAL D.Sin.Dip	VERTICAL R.L.	HORIZONTAL D.Cos.Dip	HORIZONTAL Prog.Total
0.0	326	46.0	0.0	47.0	47.0	33.8	190.2	32.6	32.6
94.0	338	48.0	47.0	96.0	49.0	36.4	153.8	32.8	65.4

GOLD FIELDS EXPLORATION PTY. LIMITED   281050   040

DRILL CORE LOG AND ASSAY DATA

PROJECT: WILSON RIVER   HOLE NUMBER: W.R. 2   Page: 1.

INTERVAL From	INTERVAL To	RECOVERY m	RECOVERY %	DESCRIPTION	ASSAY DATA Sample No.	From	To	Rec. %	Sn	Cu	Pb	Zn	WO_3	Fe	Bi	Ag (ppm)		
				SUMMARISED LOG														
0.0	26.5	1	4	ALLUVIUM CONSISTING OF WEATHERED LIMESTONE AND QUARTZITE FRAGMEN-														
				TS IN AN UNCONSOLIDATED SAND-CLAY MATRIX.														
					Sludge assays:				Sn(ppm)									
26.5	63.0	13.3	36	UNALTERED, STYLOLITIC LIMESTONE, BEDDED IN PLACES. MANY WIDE														
				ZONES OF DEEPLY WEATHERED CLAY-FILLED LIMESTONE OCCUR.		4.0	7.0		<10									
							8.5		10									
63.0	82.5	17.2	88	MAGNETITE-ACTINOLITE SKARN. ZONED WITH GARNET BEARING SECTIONS			10.0		"									
				AND MINOR SULPHIDE DEVELOPMENT. BANDED IN PLACES.			11.5		40									
							13.0		10									
82.5	96.0	13.5	100	WEAKLY SERICITISED, MEDIUM GRAINED SLIGHTLY PORPHYRITIC GRANITE.			14.5		"									
							16.0		"									
				DETAILED LOG.			17.5		"									
							19.0		"									
				0.0-26.5 ALLUVIUM OF WEATHERED LIMESTONE AND QUARTZITE FRAGMENTS			20.5		<10									
				IN A SANDY-CLAY MATRIX.			22.0		30									
							23.5		10									
0.0	4.0	0	0	No core recovered.			25.0		30									
						25.0	26.5		60									
4.0	26.5	1	4	Pale brown-grey sandy soil and alluvium containing some weathered														
(Note: Sludge recovered				rock fragments, predominantly quartzite.														
using casing advancer				Between 4.0 and 26.5, 1.0m of brown clay and grey clay,	11084	4.0	27.0	7	<0.01	0.03	<0.01	0.10	<0.01	24.5	<0.001	<1		
4.0-26.5)				banded in places representing weathered limestone, was recov-														
				ered as core. Also, several fragments of quartzite are present.														
				26.5-63.0 WEATHERED LIMESTONE, UNALTERED STYLOLITE LIMESTONE														
				WITH DEEP KARST-LIKE, LIMONITIC CLAY FILLED ZONES.														
26.5	27.0	0.5	100	Dark brown gossaneous clay. Strongly weathered, probably in situ														
				limestone.														
27.0	45.0	7.3	41	Pale grey, red and white limestone, in places with thin lamallae														
				at 60° to CA. Stylolites are common with limonitic weathering														
				surfaces. Limonite also occurs on some fractures. The limestone														

GOLD FIELDS EXPLORATION PTY. LIMITED

281051

050

ULV. PRESS

PROJECT: WILSON RIVER

DRILL CORE LOG AND ASSAY DATA

HOLE NUMBER: W.R. 2

INTERVAL From	INTERVAL To	RECOVERY m	RECOVERY %	DESCRIPTION	Sample No.	From	To	Rec. %	Sn	Cu	Pb	Zn	WO_3	Fe	Bi	Ag (ppm)	Sol. Sn
				is weakly fractured.													
				Within the limestone itself, deep brown, crumbly puggy clay													
				zones representing deep weathering zones, occur. The clays													
				often contain dark and light bands and limestone fragments.													
				These zones have abrupt contacts with the unweathered lime-													
				stone and occur between: 30.5 and 33.0 (0.2m recovered)													
				36.0 and 37.9 (0.6m recovered)/													
45.0	63.0	5.5	31	A large karst-type weathering zone, consisting of tan, brown													
				and pale coloured clays; non-calcareous. Quite soft and puggy													
				with some becom- ing locally quite hard. These harder portions													
				are banded with the bands appearing to be secondary sedimentary													
				features. The limonitic clays are non-magnetic and non-gossaneous													
				although bright red hematitic patches do occur.	11085	60.0	63.0	31	<0.01	0.01	<0.01	0.17	<0.01	43.2	0.005	<1	
				63.0-82.5 MAGNETITE-ACTINOLITE SKARN WITH MINOR GARNET, CALCITE													
				AND SULPHIDES.													
63.0	66.0	0.7	23	Brown-green gossaneous clay. Well weathered limonitic clays	11086	63.0	66.0	23	0.54	0.05	<0.01	0.17	0.16	46.1	0.010	<1	0.09
				gradually turning into green (dark) actinolitic skarn.	11087	66.0	67.0	100	0.29	<0.01	"	0.08	0.08	40.5	0.050	1	0.13
					11088		68.0	"	0.32	"	"	0.04	0.02	32.9	0.129	3	0.12
66.0	71.5	5.5	100	Magnetite-actinolite skarn. Magnetite rich (brown) pockets	11089		69.0	"	0.15	0.19	"	"	0.78	27.8	0.061	<1	0.03
				around 1cm in diameter occur in a dark green actinolitic matrix.	11090		70.0	"	0.23	0.01	"	0.03	0.05	24.8	0.08	"	0.02
				The unit is highly fractured with green talcose/chloritic slick-	11091	70.0	71.5	"	0.27	"	"	0.02	<0.01	18.3	0.036	"	0.04
				ensides on some of the fractures. Other minerals present include	11092		72.5	"	0.04	<0.01	"	0.03	"	14.8	0.019	1	0.01
				quartz and pyrite - as accessories (approx. 5%).	11093		73.5	"	"	0.01	"	"	"	22.3	0.018	<1	0.01
					11094		74.5	"	<0.01	<0.01	"	"	"	16.1	0.013	"	
71.5	74.5	3.0	100	Magnetite-actinolite-garnet skarn. As above but large patches	11095		75.5	"	"	0.05	"	"	"	29.6	0.006	1	
				of pale reddish garnet rich rock also occur. Also the actinolite	11096		76.5	"	"	<0.01	"	0.09	"	40.1	<0.001	"	
				is pale green (above it was v. dark) and magnetite is not as	11097	76.5	77.0	"	0.01	0.02	"	0.06	"	34.4	0.001	2	
				abundant. Very thin calcite veinlets cut the rock which is only	11098		78.0	"	0.03	0.01	"	0.02	0.01	13.3	0.004	<1	<0.01
				weakly fractured.	11099		79.0	"	0.06	0.12	"	"	<0.01	14.2	<0.001	2	0.01
					11100		80.0	"	0.05	0.03	"	"	0.02	10.6	0.002	1	<0.01
74.5	77.0	2.5	100	Magnetite-actinolite banded skarn. As above but layers or	11101		81.0	"	<0.01	0.01	"	0.04	0.01	8.4	0.004	"	
				bands of magnetite occur with the actinolite. Also the magnetite	11102	81.0	82.5	"	"	"	"	0.05	<0.01	8.3	<0.001	<1	
					11103	82.5	83.5	"	"	<0.01	"	0.03	"	3.2	"	"	

281052 051

GOLD FIELDS EXPLORATION PTY. LIMITED

PROJECT: WILSON RIVER

DRILL CORE LOG AND ASSAY DATA

HOLE NUMBER: W.R. 2 Page: 3.

INTERVAL From	INTERVAL To	RECOVERY m	RECOVERY %	DESCRIPTION	Sample No.	From	To	Rec. %
				is remobilised into veins cross-cutting the bands. The reddish garnet bearing phase is absent. The bands occur at 45° CA.				
				Between 74.9 and 75.4, a 0.5m zone with increased sulphides, as disseminated pyrite and chalcopyrite. (approx. 5% vol.).				
77.0	82.5	5.5	100	Magnetite-actinolite-garnet skarn. Magnetite content is much less than in previous units. Pyrite occurs as scattered, discrete blebs and in veinlets. Calcite i s more abundant with depth. The majority of the rock is actinolite or garnet rich zones. After 79.0, magnetite appears to be absent. Fracturing is moderate with several small crush zones 30cm wide.				
				82.5-96.0 WEAKLY ALTERED, MEDIUM GRAINED, WEAKLY PORPHYRITIC GRANITE.				
82.5	84.0	1.5	100	Green-grey medium grained, weakly porphyritic granite. Both white and pale green sericite feldspar occur. Coarse grained quartz and black mica are also abundant. Overall weakly altered and fractured. The top 10cm of this unit is relatively fine grained.				
84.0	96.0	12.0	100	Grey, medium grained, weakly porphyritic granite. Unaltered except for a few pale green sericitised feldspars. The grain size varies widely, with several zones of fine-grained, porphyritic granite developed. Quartz and feldspar are the phenocrysts. Accessory tourmaline also occurs.				
				Between 95.0 and 96.0, a weakly sericitised fine grained zone occurs.				
				END OF HOLE 96.0				

052

28105?

HOLE NO:	WR 2
STATE :	TASMANIA

GOLD FIELDS EXPLORATION PTY. LIMITED

DRILL CORE RECORD

CENTRAL MINERALOGICAL SERVICES

Date 27th July, 1984

SAMPLE REPORT (Mineralogy, Petrology, Ore Microscopy)

IDENTIFICATION
11086
Oxidised Skarn.

Job No. CMS 84/7/19 Date Received: 16.7.1984

Reference Letter dated 13.7.1984 - P.A. Roberts

Sample No. 11086, WR 2; 63.0-66.0m

Nature of Sample: Crushed Core

DESCRIPTION SECTION No. 50927

a. Hand Specimen:

b. Microscopic:

The fragments represent severely altered skarn, and comprise a range of compositions. Some fragments consist only of massive, featureless goethite, and some are clays and goethite-pseudomorphous after Ca/Mg/Fe silicates.

Relict patches of ?vesuvianite and grossularite garnet are preserved in places, showing alteration to pale chlorite or a serpentine mineral, which merges into the surrounding brown ferruginous clay matrix. There are a few black opaque patches of a mineral which may be ilvaite (and could be Sn-bearing).

No cassiterite was detected; wisps and small patches of a submicroscopic, leucoxene-like white substance occur with the clays and could be cryptocrystalline SnO_2, but this is uncertain.

The source for the WO_3 is not known; goethite can be tungstiferous, but only electron-probe microanalysis is likely to establish whether this is so here. Another tungsten mineral occurring in oxidised rocks, e.g. at Kara, is anthoinite, a white clay-like Al-tungstate (with H_2O); this is difficult to identify unless present in sufficient amount for XRD.

H.W. Fander, M. Sc.

053

GOLD FIELDS EXPLORATION PTY LIMITED
DRILL CORE RECORD

281054

HOLE NO.:	WR 2
STATE :	TASMANIA

CENTRAL MINERALOGICAL SERVICES

Date 27th July, 1984

SAMPLE REPORT (Mineralogy, Petrology, Ore Microscopy)

IDENTIFICATION
11088
Skarn

Job No. CMS 84/7/19 Date Received: 16.7.1984

Reference Letter dated 13.7.1984 - P.A. Roberts

Sample No. 11088, WR 2; 67.0 - 68.0m

Nature of Sample: Crushed Core

DESCRIPTION **SECTION No.** 50928

a. Hand Specimen:

b. Microscopic:

This sample includes fresh and weathered, oxidised skarn fragments, and there are features common to this sample and the previous one.

The fresher fragments mainly consist of granular pale grossularite garnet, with embedded magnetite, occasional arsenopyrite, and a black opaque fibrous mineral, apparently fairly soft/brittle, which is believed to be a member of the ludwigite-vonsenite series of Fe-Mg borates, together with a related dark green mineral which is probably hulsite (Sn-bearing ludwigite); some fragments consist mainly of small prismatic crystals of pale greenish vesuvianite. Occasional small apatite crystals are also present.

The weathered material consists of ferruginous clays, goethite, oxidised chlorite, and shreds of green iron-chlorite.

No cassiterite was identified; it is probable that both the soluble and insoluble Sn is contained in the ludwigite-hulsite group of minerals, with the possibility that Sn-bearing ilvaite may also be present (this is probably less soluble than the borates).

H.W. Fander, M. Sc.

GOLD FIELDS EXPLORATION PTY. LIMITED

DRILL CORE RECORD

281055

054

HOLE NO. :	WR 2
STATE :	TASMANIA

CENTRAL MINERALOGICAL SERVICES

Date 27th July, 1984

SAMPLE REPORT (Mineralogy, Petrology, Ore Microscopy)

IDENTIFICATION
11089
Skarn with Scheelite

Job No. CMS 84/7/19 **Date Received:** 16.7.1984

Reference Letter dated 13.7.1984 - P.A. Roberts

Sample No. 11089 , WR 2, 68.0 - 69.0m

Nature of Sample: Crushed Core

DESCRIPTION **SECTION No.** 50929

a. Hand Specimen:

b. Microscopic:

Most of the fragments are reasonably fresh, with minor serpentinisation and oxidation.

The sample contains conspicuous scheelite, as "free" fragments of single crystals up to 1.5 mm in size, and as complete crystals associated with fragments of pyritised pyrrhotite.

The major calc-silicate mineral is grossularite garnet, with minor vesuvianite; there are patches of a black opaque mineral tentatively assigned to the ludwigite-vonsenite-hulsite group of borates. Since no cassiterite was identified, this may be the only primary source of Sn, but this aspect needs further investigation.

Apart from one fragment of pyritised pyrrhotite associated with scheelite, the paragenesis of the scheelite is not known, because the scheelite fragments are free; thus, this material is not suitable for petrological or paragenetic studies - solid core is required.

Other sulphides present include arsenopyrite, and pyrite veinlets which cut the silicates and are therefore younger.

H.W. Fander, M. Sc.

055

281056

HOLE NO.:	W.R. 3
STATE :	TASMANIA

GOLD FIELDS EXPLORATION PTY. LIMITED

DRILL CORE RECORD

ULV. PRESS

		PURPOSE
PROJECT	WILSON RIVER	To test for stanniferous skarn in the Gordon Limestone at Laurel Creek East (Line 1200N).
DESIGNED BY	A.J. CARTWRIGHT	
LOGGED BY	A.J. CARTWRIGHT	
COMMENCED	30-1-84	
COMPLETED	3-2-84	

LOG SUMMARY / GENERAL COMMENTS	
	An alluvium of weathered Meredith Granite, Crotty Quartzite, calc-silicates and magnetite skarn-gossan in a deep weathered zone in the Gordon Limestone was encountered over the first 81.0m. Highly altered Meredith Granite was found between 81.0 and 93.0. Assays are given below.

ASSAY SUMMARY

INTERVAL From	INTERVAL To												COMMENTS
		No significant assays.											

LOCATION

NORTHING	5392794
EASTING	369107
R.L.	205.0
GRID	A.M.G.
LENGTH	93.0

HOLE CONDITION

SIZE

Hole Size	Depth
HQ	0.0-5.0
NQ	5.0-51.0
BQ	51.0-93.0

SIGNIFICANT CORE LOSS INTERVALS

From	To	% Lost
0.0	81.0	94

POOR GROUND CONDITION ZONES

From	To	Condition
0.0	81.0	Alluvium of sand, clay and weathered boulders in a limestone karst-type topography.
81.0	93.0	Highly altered and fractured granite.

HOLE CONDITIONS AFTER COMPLETION

Black polythene left in hole as a marker
NQ bit & barrel and casing left in hole, 15.0-51.0m.

SURVEY DATA (Note: Bearing type must be same as Project Grid Type)

SURVEY Depth	SURVEY Bearing	SURVEY Dip	INTERVAL From	INTERVAL To	INTERVAL Distance	VERTICAL D.Sin.Dip	VERTICAL R.L.	HORIZONTAL D.Cos.Dip	HORIZONTAL Prog. Total
0.0	014	42.0	0.0	26.0	26.0	17.4	187.6	19.3	19.3
52.0	007	45.0	26.0	71.5	45.5	32.2	155.4	32.2	51.5
91.0	011	45.5	71.5	93.0	21.5	15.3	140.1	15.1	66.6

GOLD FIELDS EXPLORATION PTY. LIMITED

DRILL CORE LOG AND ASSAY DATA

PROJECT: WILSON RIVER HOLE NUMBER: W.R. 3 Page: 1.

INTERVAL From	INTERVAL To	RECOVERY m	RECOVERY %	DESCRIPTION	Sample No.	From	To	Rec. %	Sn	Cu	Pb	Zn	WO_3	Fe	Bi	Sol Sn	Ag (ppm)
				SUMMARISED LOG													
0.0	81.0	5.1	6	ALLUVIUM CONSISTING OF WEATHERED FRAGMENTS OF QUARTZITE, MAGNETITE													
				SKARN, CLAY WEATHERED CALC-SILICATE AND GRANITE IN A DEEPLY													
				WEATHERED KARST-STYLE HOLE IN LIMESTONE.	Sludge Assays:												
81.0	93.0	12.0	100	INCIPIENTLY WEATHERED, INTENSELY ALTERED, FINE GRAINED, PORPHYRIT-					(ppm.)								
				IC GRANITE.	10872	5.0	6.0		<10								
					10873		7.5		"								
					10874		9.0		"								
				DETAILED LOG	10875		10.5		10								
					10876		12.0		<10								
				0.0-81.0 DEEPLY WEATHERED ZONE AND/OR ALLUVIUM. FRAGMENTS OF	10877		13.5		"								
				QUARTZITE, SKARN (MAGNETITE BEARING), CLAY AND GRANITE.	10878		15.0		10								
					10879		16.5		<10								
0.0	5.0	0		No core recovered.	10880		18.0		"								
					10881		19.5		"								
5.0	9.0	0.5	13	Quartzite fragments and quartzose sand. White quartz rich sand	10882		21.0		20								
				and fine grained homogeneous quartzite fragments. Unweathered	10883		22.5		80								
				and unaltered.	10884		24.0		30								
					10885		25.5		50								
9.0	22.5	0.4	3	Fragments of gossan, magnetite rich sands (between 21.0 and 22.5)	10886		27.0		50								
(Sludge recovered with				Strongly weathered iron rich clays and limonite-brown, red, black	10887		28.5		50								
casing advancer, 5.0-30.0).				and orange in colour.	10888	28.5	30.0		<10								
22.5	30.0	0.3	4	Moderately to strongly weathered magnetite skarn. Brown with													
				abundant limonitic clays. Fragments of this only, with quartose													
				sands.	11280	5.0	51.0	5	<0.01	0.05	0.13	0.12	0.01	40.8	0.002	<0.01	10
30.0	51.0	0.9	4	Brown, limonitic, clay-rock. Highly fractured and crumbly. Prob-													
				ably representing weathered skarn in limestone.													
51.0	72.0	0.9	4	Pale brown, strongly weathered, fine grained, weakly porphyritic													
				granite fragments. The granite appears to have been altered at													
				one stage. Several patches of clay-rock fragments as described													

281058 057

GOLD FIELDS EXPLORATION PTY. LIMITED

ULV. PRESS

PROJECT: WILSON RIVER

DRILL CORE LOG AND ASSAY DATA

HOLE NUMBER: W.R. 3 Page: 2.

INTERVAL From	INTERVAL To	RECOVERY m	RECOVERY %	DESCRIPTION
				in the unit above.
72.0	81.0	2.1	23	Moderately weathered clay-rock. Calcareous units altered and replaced have been weathered to a variety of clays: dark brown, green and tan. A few weathered granite fragments and a few fragments of fairly unweathered skarn (actinolitic?) also exist. The last 0.5m consists of brown soil with a few weakly weathered, sericitised granite fragments.
				81.0-93.0 INTENSELY ALTERED, FINE GRAINED POPRHYRITIC GRANITE.
81.0	93.0	12.0	100	Highly altered, porphyritic, green granite. Sericite is abundant, replacing feldspar phenocrysts-up to 2cm across and pervasively flooding the fine grained groundmass. Moderately fractured with black limonitic coatings and fracture zones of crumbly-clay rich rock.
				Between 89.0 and 92.0, a very coarse grained phase occurs. Sericite is abundant in this phase also.
				END OF HOLE 93.0m.

ASSAY DATA (wt %)

Sample No.	From	To	Rec. %	Sn	Cu	Pb	Zn	WO_3	Fe	Bi	Ag (ppm)
11104	72.0	81.0	23	<0.01	<0.01	0.01	0.26	<0.01	6.2	0.005	<1
11105		82.0	100	"	"	0.02	0.05	"	1.1	<0.001	"
11106		83.0	"	"	0.02	0.01	0.04	"	1.2	"	"
11107		84.0	"	"	<0.01	0.03	0.07	"	0.5	"	1
11108		85.0	"	"	"	"	0.09	"	0.7	"	2
11109		86.0	"	"	"	"	0.03	"	1.3	"	<1
11110	86.0	87.0	"	"	"	0.01	0.01	"	<0.1	"	"

U58

281059

GOLD FIELDS EXPLORATION PTY. LIMITED

DRILL CORE RECORD

HOLE NO.:	W.R. 4
STATE :	TASMANIA

PROJECT	WILSON RIVER
DESIGNED BY	A.J. CARTWRIGHT
LOGGED BY	A.J. CARTWRIGHT
COMMENCED	4-2-84
COMPLETED	8-2-84

PURPOSE

To test for stanniferous skarn in the Crotty Quartzite at Laurel Creek West (Line 1200N)

LOG SUMMARY / GENERAL COMMENTS

The hole encountered an alluvium of weathered Gordon Limestone, Crotty Quartzite and Meredith Granite to 32.6, then weathered skarn in Gordon Limestone to 39.0, followed by weakly weathered, unaltered Meredith Granite to 63.0. The skarn is a limonitic magnetite-clayey actinolite skarn with minor garnet and sulphide. Assays are given below.

ASSAY SUMMARY

INTERVAL From	INTERVAL To	wt %	Sn	WO_3	Cu	Pb	Zn	Fe	Bi	Ag (ppm)	Sol. Sn			COMMENTS
32.6	36.0	3.4m	0.13	0.02	0.18	0.17	0.14	0.07	0.013	4	<0.01			

LOCATION

NORTHING	5392400
EASTING	365990
R.L.	313.0
GRID	A.M.G.
LENGTH	63.0

HOLE CONDITION

SIZE

Hole Size	Depth
HQ	0.0-5.0
NQ	5.0-39.0
BQ	39.0-63.0

SIGNIFICANT CORE LOSS INTERVALS

From	To	% Lost
0.0	38.9	89

POOR GROUND CONDITION ZONES

From	To	Condition
0.0	63.0	Entire hole encountered weathered rock.
0.0	38.9	Strongly weathered, fractured and unconsolidated rock/alluvium.

HOLE CONDITIONS AFTER COMPLETION

Black polythene left in hole as a marker.
HQ casing left in hole 9.0-15.0m.
NQ casing left in hole 12.0-39.0m.

SURVEY DATA (Note: Bearing type must be same as Project Grid Type)

SURVEY Depth	SURVEY Bearing	SURVEY Dip	INTERVAL From	INTERVAL To	INTERVAL Distance	VERTICAL D.Sin.Dip	VERTICAL R.L.	HORIZONTAL D.Cos.Dip	HORIZONTAL Prog. Total
0.0	269	50.0	0.0	30.5	30.5	23.4	289.6	19.6	19.6
61.0	263	54.0	30.5	63.0	32.5	26.3	263.5	19.1	38.7

059

281060

GOLD FIELDS EXPLORATION PTY. LIMITED

DRILL CORE LOG AND ASSAY DATA

PROJECT: WILSON RIVER

HOLE NUMBER: W.R. 4

Page: 1.

INTERVAL From	INTERVAL To	RECOVERY m	RECOVERY %	DESCRIPTION	Sample No.	From	To	Rec. %	Sn	Cu	Pb	Zn	WO_3	Fe	Bi	Ag (ppm)	Sol. Sn
				SUMMARISED LOG													
0.0	32.6	2.0	6	ALLUVIUM OF WEATHERED QUARTZITE, LIMESTONE, SKARN AND GRANITE													
				FRAGMENTS. UNCONSOLIDATED.													
32.6	39.0	2.25	35	VARIABLY, STRONGLY WEATHERED SKARN. PREDOMINANTLY MAGNETITE(LIMON													
				ITE) - ACTINOLITE (CLAY) WITH MINOR GARNET AND SULPHIDES.													
39.0	63.0	23.4	98	UNALTERED TO VERY WEAKLY ALTERED, WEATHERED, MEDIUM GRAINED,													
				PORPHYRITIC GRANITE.													
				DETAILED LOG													
				0.0-32.6ALLUVIUM CONSISTING OF WEATHERED QUARTZITE, GRANITE AND													
				LIMESTONE FRAGMENTS.													
0.0	14.5	0	0	No core recovered.													
14.5	32.6	2.0	11	Alluvium consisting of boulders and pebbles of weathered quartzite													
				limestone and granite. Unconsolidated with no matrix or fine	11111	14.5	32.6	11	0.01	0.06	0.06	0.28	0.03	<0.1	<0.001	4	
				material. The granite fragments are rare and are will weathered													
				fine grained granites. The quartzites have weathered (pale green													
				clay) sections in otherwise very fine grained, homogenous quartz-													
				ose sediments. The limestones are also common and are completely													
				weathered to a dark brown-black semi-consolidated clay-rock.													
				Some is magnetite bearing.													
				32.6-39.0m MODERATELY WEATHERED, MAGNETITE-ACTINOLITE SKARN.													
32.6	36.0	1.2	35	Limonite-garnet-actinolite skarn. Calcareous sediment replaced													
				by the above minerals. The limonite was probably magnetite, but													
				is now weathered to a brown limonitic-clay rock. Coarse grained	11112	32.6	36.0	35	0.13	0.18	0.17	0.14	0.02	0.7	0.013	4	<0.01
				pale brown, euhedral, garnets are common throughout. Overall													
				the unit is strongly weathered and broken.													

ULV. PRESS

GOLD FIELDS EXPLORATION PTY. LIMITED

PROJECT: WILSON RIVER

DRILL CORE LOG AND ASSAY DATA

HOLE NUMBER: W.R. 4 Page: 2.

INTERVAL		RECOVERY		DESCRIPTION	ASSAY DATA (wt %)													
From	To	m	%		Sample No.	From	To	Rec. %	Sn	Cu	Pb	Zn	WO_3	Fe	Bi	Ag (ppm)	Sol.Sn
36.0	38.0	0.5	25	*Magnetite-garnet-pyrite-actinolite-skarn. Abundant magnetite(un-*													
				altered) crudely banded in a green clay (weathered actinolite)													
				matrix that also contains minor pinkish garnet and large euhedral													
				pyrite crystals. A blocky fracture exists. Unweathered. The last													
				1.0m of this unit is very crumbly-soil like.													
38.0	38.9	0.45	40	Weathered actinolite skarn. Strongly weathered actinolitic skarn													
				with very minor sulphides. Softish but competent, blocky fractured													
				No garnet or magnetite is present.	11113	36.0	39.0	35	0.03	0.10	<0.01	0.06	0.23	1.5	0.036	2	<0.01
38.9	39.0	0.1	100	Weathered limonite-actinolite skarn. Strongly weathered brown													
				limonite-clay rich rock. Moderately fractured.													
				39.0-63.0m INCIPIENTLY ALTERED, MEDIUM GRAINED, PORPHYRITIC,													
				WEAKLY WEATHERED GRANITE.													
39.0	42.9	3.3	85	Moderately weathered, incipiently altered fine grained, non-	11114	39.0	40.0	85	<0.01	0.01	0.01	0.03	0.02	<0.1	<0.001	1	
				porphyritic granite. Pale brown limonite is common as a joint	11115		41.0	85	"	<0.01	"	0.02	"	0.1	0.001	<1	
				and fracture coating as well as a pervasive phase. The granite	11116		42.0	85	"	0.03	"	"	<0.01	0.6	"	"	
				is quite strongly fractured and contains minor pale green sericite	11117	42.0	43.0	85	"	<0.01	<0.01	"	0.01	1.1	<0.001	"	
				bearing zones.													
42.9	63.0	20.1	100	Medium grained, strongly porphyritic, unaltered granite with													
				several large weathered zones. The unaltered granite is grey													
				and consists of 1-2cm white feldspar phenocrysts. The weathered													
				zones are crumbly, highly fractured, limonitic granite patches,													
				some up to 1.0m wide. They decrease in frequency and size with													
				depth. Also with depth, the feldspar phenocrysts become pink.													
				The smaller feldspars remain white.													
				END OF HOLE 63.0													

061

GOLD FIELDS EXPLORATION PTY. LIMITED

DRILL CORE RECORD

281062

HOLE NO.: W.R. 5
STATE : TASMANIA

ULV. PRESS

PROJECT	WILSON RIVER
DESIGNED BY	A.J. CARTWRIGHT
LOGGED BY	A.J. CARTWRIGHT
COMMENCED	9-2-84
COMPLETED	13-2-84

PURPOSE

To test for stanniferous skarn in the Gordon Limestone at Laurel Creek West (Between lines 1800N and 1600N)

LOG SUMMARY / GENERAL COMMENTS

Deeply weathered alluvium of Crotty Quartzite was found to 63.0. This is underlain by 3.0m of weathered Quartzite, which is underlain by 24.7m of magnetite skarn and calc-silicate replacing calcareous units in the Quartzite. AT 90.7, unaltered Meredith Granite was intersected. Significant assays are given below.

ASSAY SUMMARY

INTERVAL From	INTERVAL To	wt %	Sn	WO_3	Fe	Cu	Pb	Zn	Ag(ppm)	Bi	Sol. Sn			COMMENTS
66.0	73.0	7.0m	0.65	0.01	43.2	0.09	<0.01	0.07	1	0.075	0.14			Note: This interval is highly weathered.

LOCATION

NORTHING	5392889
EASTING	366634
R.L.	312.0
GRID	A.M.G.
LENGTH	105.0

HOLE CONDITION

SIZE

Hole Size	Depth
HQ	0.0-3.0
NQ	3.0-33.0
BQ	33.0-105.

SIGNIFICANT CORE LOSS INTERVALS

From	To	% Lost
0.0	81.2	88

POOR GROUND CONDITION ZONES

From	To	Condition
0.0	81.2	Deeply weathered alluvium and rock.

HOLE CONDITIONS AFTER COMPLETION

Black polythene left in hole as a marker.

SURVEY DATA (Note: Bearing type must be same as Project Grid Type)

SURVEY Depth	SURVEY Bearing	SURVEY Dip	INTERVAL From	INTERVAL To	INTERVAL Distance	VERTICAL D. Sin. Dip	VERTICAL R.L.	HORIZONTAL D. Cos. Dip	HORIZONTAL Prog. Total	SURVEY Depth	SURVEY Bearing	SURVEY Dip	INTERVAL From	INTERVAL To	INTERVAL Distance	VERTICAL D. Sin. Dip	VERTICAL R.L.	HORIZONTAL D. Cos. Dip	HORIZONTAL Prog. Total
0.0	359	55.0	0.0	26.0	26.0	21.3	290.7	14.9	14.9										
52.0	344	58.0	26.0	77.5	51.5	43.7	247.0	27.3	42.2										
103.0	343	58.5	77.5	105.0	27.5	23.5	223.5	14.4	56.6										

062

281063

GOLD FIELDS EXPLORATION PTY. LIMITED

DRILL CORE LOG AND ASSAY DATA

PROJECT: WILSON RIVER

HOLE NUMBER: W.R. 5

Page: 1.

INTERVAL From	INTERVAL To	RECOVERY m	RECOVERY %	DESCRIPTION	Sample No.	From	To	Rec. %	Sn	Cu	Pb	Zn	WO_3	Fe	Bi	Ag (ppm)
				ASSAY DATA (wt %)												
				SUMMARISED LOG												
0.0	63.0	2.8	4	LIMONITIC COLLUVIUM/ALLUVIUM OF CALC-SILICATES AND QUARTZITE.												
63.0	66.0	0.9	30	LIMONITIC, WEATHERED, UNREPLACED QUARTZITE.												
66.0	90.7	15.9	64	VARIABLY, BUT USUALLY STRONGLY WEATHERED SKARN AND CALC-SILICATES.												
				MAGNETITE BEARING IN PLACES, HORNFELSED.												
90.7	105.0	14.3	100	UNALTERED TO INCIPIENTLY ALTERED PORPHYRITIC GRANITE WITH MANY												
				PEGMATITIC AND APLITIC PHASES.												
				DETAILED LOG												
				0.0-63.0 COLLUVIUM-ALLUVIUM OF LIMONITIC, WEATHERED QUARTZITE.												
0.0	3.0	0.0	0	No core recovered.												
3.0	63.0	2.8	5	Colluvium-alluvium of weathered rock and clay. Predominantly pale	11118	3.0	33.0	5	<0.01	0.01	0.01	0.06	<0.01	4.8	<0.001	<1
				brown clay with minor, strongly weathered, pale green calc-silic-												
				ates and quartzite fragments. Limonite is well developed.	11119	33.0	63.0	5	"	0.02	"	0.08	"	4.0	0.002	"
				63.0-66.0 UNALTERED, WEATHERED, LIMONITIC QUARTZITE.												
63.0	66.0	0.9	30	Highly fractured, weakly weathered, pale cream coloured quartzite.												
				Black limonite coats fractures and brown clayey limonite is also												
				common as a weathering product. The quartzite is fine grained	11120	63.0	66.0	30	"	0.04	"	0.02	"	0.9	<0.001	"
				and homogenous. Unaltered and unmetamorphosed.												
				66.0-90.7 STRONGLY WEATHERED TO UNWEATHERED SKARN, MAGNETITE-												
				BEARING IN PLACES												
66.0	66.5	0.5	100	Weakly weathered magnetite-limonite skarn. Massive to semi-massive												
				magnetite intergrown with a limonitic clay. Moderately to weakly												

GOLD FIELDS EXPLORATION PTY. LIMITED

281064

ULV. PRESS.

PROJECT: WILSON RIVER

DRILL CORE LOG AND ASSAY DATA

HOLE NUMBER: W.R. 5

INTERVAL		RECOVERY		DESCRIPTION	ASSAY DATA (wt %)													
From	To	m	%		Sample No.	From	To	Rec. %	Sn	Cu	Pb	Zn	WO_3	Fe	Bi	Ag(ppm)	Sol. Sn
				fractured.													
					11121	66.0	66.5	100	0.43	0.02	<0.01	0.06	0.02	57.8	0.023	<1	0.01
66.5	73.0	2.6	40	Brown, clay-gossan. Very strongly weathered limonitic clay.	11122		69.0	40	0.57	0.09	"	"	0.01	50.1	0.080	"	0.08
				Highly fractured, crumbly, clay-rock. Very minor amounts of	11123		71.0	40	0.84	0.13	"	0.11	<0.01	42.4	0.113	1	0.15
				magnetite exist. Imcompetent soil-like rock.	11124		73.0	40	0.60	0.07	"	0.05	0.01	31.7	0.043	"	0.25
73.0	78.0	1.5	30	Unreplaced quartzite. Moderately to weakly weathered, patchily	11125	73.0	78.0	30	0.01	0.03	"	0.02	<0.01	2.4	<0.001	<1	
				replaced quartzite. Highly fractured into small blocks. Weak													
				limonite development and vein development. Replacement (skarn													
				type) occurs around the veins.													
78.0	81.2	1.8	56	Moderately to weakly weathered, hornfelsed, partially replaced													
				sediments. Green actinolite and limonite pseudomorphing magnetite	11126	78.0	81.2	56	<0.01	0.02	<0.01	0.05	0.02	13.8	<0.001	<1	
				have replaced the calcareous quartzite. Strongly fractured in													
				places producing a blocky phase of the unit. Also, highly leached													
				out quartz veins and minor stockworks exist. The bottom of this													
				unit is the weathering depth.													
81.2	90.7	9.5	100	Unweathered, hornfels-skarn. Calcareous sediments replaced by	11127	81.2	82.2	100	<0.01	<0.01	0.01	0.02	<0.01	2.0	<0.001	<1	
				a sequence of actinolite-garnet-quartz-calcite-pyrite. The sequence	11128		83.2	"	"	0.02	<0.01	0.01	0.04	1.9	"	"	
				occurs mainly as a series of bands, especially the quartz-actin-	11129		84.2	"	"	<0.01	"	0.02	<0.01	7.3	0.001	"	
				olite and garnet phases (at 70° CA) - selectively replacing	11130		85.2	"	"	0.04	"	"	0.01	15.9	0.015	"	
				the various sedimentary units. Massive intergrowths of actinolite-	11131		86.2	"	"	<0.01	"	"	"	8.3	<0.001	"	
				calcite-sulphide occur less frequently and quartz-calcite and	11132		87.2	"	"	0.02	"	"	0.07	8.7	"	"	
				quartz veins cut all these units.	11133		88.2	"	"	0.01	"	"	0.18	12.1	"	"	<0.01
				The rock becomes very strongly hornfelsed over the last 0.5m,	11134		89.2	"	"	<0.01	"	"	<0.01	1.9	"	"	
				with thin quartz veinlets and a coarse grained, recrystallised	11135		90.7	"	"	0.02	"	0.01	"	2.0	"	"	
				phase hard against the granite margin.	11136		91.7	"	"	<0.01	"	"	"	1.3	"	"	
				At 90.1, a 20cm thick fine grained aplitic dyke, weakly altered,													
				cuts the hornfels.													
				90.7-105.0 INCIPIENTLY TO UNALTERED PORPHYRITIC GRANITE WITH													
				NUMEROUS COARSE AND FINE GRAINED VARIANTS.													
90.7	98.2	7.5	100	Coarse grained, porphyritic granite. Pale orange-grey in colour,													

281065

064

GOLD FIELDS EXPLORATION PTY. LIMITED

PROJECT: WILSON RIVER

DRILL CORE LOG AND ASSAY DATA

HOLE NUMBER: W.R. 5 Page: 3.

INTERVAL From	INTERVAL To	RECOVERY m	RECOVERY %	DESCRIPTION	ASSAY DATA Sample No.	From	To	Rec. %
				with patches of grain size variants. The feldspar phenocrysts are pale orange and pale green - often occuring at pegmatitic inter-growths with quartz. Biotite-rich accumulations occur usually very coarse grained biotite. Aplites also occur. Unfractured and overall, very weakly altered.				
98.2	105.0	6.8	100	Medium-fine grained, porphyritic grey granite. The feldspar pheno-crysts are white, and the granite is strongly porphyritic. Some aplitic patches and some coarse grained, equigranular patches also occur. Unaltered and unfractured. With several quartz veinlets developed.				
				END OF HOLE 105.0m				

065

DRILL CORE RECORD

281066

HOLE NO.:	WR 5
STATE	: TASMANIA

CENTRAL MINERALOGICAL SERVICES

Date 27th July, 1984

SAMPLE REPORT (Mineralogy, Petrology, Ore Microscopy)

IDENTIFICATION
11123
Altered Skarn

Job No. CMS 84/7/19 Date Received: 16.7.1984

Reference Letter dated 13.7.1984 - P.A. Roberts

Sample No. 11123 , WR 5 ; 69.0-71.0m

Nature of Sample: Crushed Core

DESCRIPTION **SECTION No.** 50930

a. Hand Specimen:

b. Microscopic:

Although this material is severely altered and ferruginised, some primary skarn minerals are preserved and suggest at least a broad correlation with 11086-89.

Most fragments consist of a finely-cellular mass of earthy goethite, with typical garnet textures; some contain residual grossularite garnet laced with fine goethite networks; there are goethite pseudomorphs after an acicular mineral which may have been vesuvianite or another calc-silicate, and aggregates of a black mineral which could be ilvaite or ludwigite-hulsite.

The relatively high insoluble Sn content of the sample has not been satisfactorily accounted for except possibly by the presence of ilvaite/hulsite, but this is speculative. By analogy with other, similar skarns, the Sn is much more likely to be in silicate form (or other form such as borate) than as cassiterite; garnet is another strong possibility of course (i.e. apart from ilvaite).

Further investigation is needed on this material, but studying concentrates produced by Superpanning a finely crushed sample.

H.W. Fander, M. Sc.

066

GOLD FIELDS EXPLORATION PTY. LIMITED

DRILL CORE RECORD

281067

HOLE NO.:	WR 5
STATE	: TASMANIA

CENTRAL MINERALOGICAL SERVICES

Date 27th July, 1984

SAMPLE REPORT (Mineralogy, Petrology, Ore Microscopy)

IDENTIFICATION
11124
Altered Skarn

Job No. CMS 84/7/19 Date Received: 16.7.1984

Reference Letter dated 13.7.1984 - P.A. Roberts

Sample No. 11124, WR 5; 71.0-73.0m

Nature of Sample: Crushed Core

DESCRIPTION SECTION No. 50931

a. Hand Specimen:

b. Microscopic:

This sample is very similar to 11123, with the addition of a few fragments of mildly recrystallized quartzite.

The fragments consist of finely-cellular goethite, of clay alteration-products with relict silicate textures after garnet and an acicular mineral (?amphibole), and residual granular masses of grossularite garnet with goethite networks. Some fragments contain patches of a black opaque mineral which may be ilvaite or ludwigite-hulsite, but is too poorly-defined. Isolated magnetite grains are also present.

The quartzite has relict clastic textures which show that the rock was a fine-grained orthoquartzite, with occasional heavy mineral grains (zircon, leucoxene), which was mildly recrystallized or incipiently metamorphosed.

As for 11123, the Sn content has not been accounted for in terms of discrete Sn minerals; the fact that almost half of the Sn is as acid-soluble material suggests one or more silicate sources which, on weathering, produce stanniferous goethite as the soluble Sn source. Clearly, all this is speculative and requires more detailed study, which can be undertaken if requested.

H.W. Fander, M. Sc.

APPENDIX 5

Petrographic reports

060

281069

Central Mineralogical Services

CMS

39 Beulah Road
Norwood, S.A. 5067
Telephone 42 5659

Mr. P.A. Roberts
Senior Geologist
Gold Fields Exploration Pty. Ltd.
P.O. Box 835
BURNIE / TAS. 7320

30th April, 1984

REPORT CMS 84/3/27

YOUR REFERENCE:	Letter dated 14.3.1984
DATE RECEIVED:	15th March, 1984
SAMPLE NOS.:	46 Samples
SUBMITTED BY:	P.A. Roberts
WORK REQUESTED:	Petrology

for

H.W. Fander, M. Sc.

Group 3 rocks comprise five samples of Bell Shale from the Huskisson Syncline, where panned stream sediment concentrates carry both cassiterite and chromite. These sediments are devoid of cóntact-alteration effects and their anomalous Sn geochemistry thus appears to reflect either contamination or, alternately, incipient veinlet-related Sn mineralisation. Confirmatory assays would appear warranted and, if positive, soluble-Sn determinations would be recommended to verify stannite- as against cassiterite-Sn.

One sample includes rare detrital grains of dark red chromite with an inferred Serpentine Hill-type Cambrian ultramafic source. Similar chromite, as a clastic component, appears in many epi-Cambrian sedimentary sequences, including for example the Dundas Group, Junee Group, the Crosby Quartzite and Cainozoic sandstones of N.W. Tasmania.

Sizing considerations imply the stream sediment-associated chromite is not locally derived (i.e. from the trace silt-sized detrital component in the pelites), although crushed particles from the subsequently submitted concentrate are similarly dark red. Similarly, the cassiterite may be considered as "exotic" to this host rock environment.

D. Cowan, B. Sc.

Sample No.	Classification - Composition	Fabric	Accessories	Comments
7935	Sericitic Slate. Semi- to sericitic white mica with varying proportions of fine silt-sized relict detrital quartz and muscovite flakes. Semi-pervasive carbonaceous matter. Minor partly degraded detrital biotite.	Variably planar to lenticularly laminated with a weak concordant slaty cleavage.	Clastic leucoxenic semi-opaques. Traces fine to ultrafine oxidised pyrite ("syngenetic"). Rare detrital schorl.	Sub- to low-greenschist facies regionally metamorphosed quartzos micaceous silty shale with minor oxidised syngenetic pyrite. No contact- or metasomatic features.
7936	Sericitic Slate. Semi- to sericitic white mica with pervasive fine silt-sized relict detrital muscovite flakes; minor detrital quartz grains, semi-pervasive carbonaceous matter. Thinly disseminated partly oxidised pyrite.	Weakly laminated, locally slumped; weak concordant slaty cleavage.	Traces detrital leucoxenic semi-opaques; rare detrital chromite.	Close affinities with 7935, relat "shaly" in comparison. Pyrite part as clusters of framboids. Detrital chromite is dark red (typical of Cambrian ultramafics).
7993	Sericitic Slate. Sericitic white mica and silt-sized relict detrital quartz in variable but overall near-equant proportions. Minor detrital muscovite, partly degraded biotite flakes. Weak limonite stainings.	Massive to weakly laminated/lenticularly shale-parted silty clastic; incipient concordant slaty cleavage.	Carbonaceous matter, detrital leucoxenic semi-opaques, zircon, rare schorl, apatite.	Relatively quartzose silty shale, "grading" into argillaceous siltst Weakly Fe-stained, but non-pyritic in contrast to 7935, 7936.
7999	Calc-Pelite. Sericite, relict detrital silt-sized quartz and muscovite in varying proportions with semi-pervasive micro-crystalline calcite, partly replaced by cloudy dolomite. Semi-pervasive carbonaceous matter.	Slumped (or bio-turbated), laminated silty clastic. Weakly fossiliferous. Incip-iently sheared.	Conspicuous fine to ultrafine "syngenetic" pyrite. Clastic leucoxenic semi-opaques, *minor traces feldspar.*	Moderately dolomitised, weakly (crinoid stem, spicule) fossilifer quartzose, micaceous silty calc-pelite. Relatively carbonaceous pyritic.
9851	Dolomitic Pelite. Semi- to sericitic white mica with conspicuous silt-sized quartz, muscovite flakes, pervasive carbonaceous matter; sparse, but more or less pervasive cloudy dolomite.	Shale breccia-like with microscale clasts lenses of carbonaceous shale in silty matrix. Incipiently sheared.	Detrital leucoxenic opaques; minor traces oxidised pyrite.	Relatively carbonaceous, weakly dolomitic, weakly (oxidised) pyrit pelite. Devoid of tangible contact metamorphic/metasomatic effects in common with 7935, 7936, 7993, 7999

071

281072

Central Mineralogical Services

CMS

39 Beulah Road
Norwood, S.A. 5067
Telephone 42 5659

Mr. P.A. Roberts
Senior Geologist
Gold Fields Exploration Pty. Ltd.
P.O. Box 835
BURNIE / TAS. 7320

24th April, 1984

REPORT CMS 84/4/19

YOUR REFERENCE:	Letter dated 17.4.1984 PAR/9508/1
DATE RECEIVED:	18th April, 1984
SAMPLE NOS.:	7973
SUBMITTED BY:	P.A. Roberts
WORK REQUESTED:	Mineralogy

DATE	
FILE No.	
L.N.	
G.P.	
P.R.	
J.R.	
S.F.	
P.D.	
FILE	

HWFander

H.W. Fander, M. Sc.

CENTRAL MINERALOGICAL SERVICES PTY. LTD.

Date 24th April, 1984

SAMPLE REPORT (Mineralogy, Petrology, Ore Microscopy)

IDENTIFICATION
7973

Job No. CMS 84/4/19 Date Received: 18.4.1984

Reference Letter dated 17.4.1984 - P.A. Roberts

Sample No. 7973

Nature of Sample: Panned Concentrate

DESCRIPTION **SECTION No.**

a. Hand Specimen:

b. Microscopic:

Portion of the sample was separated in TBE in order to achieve further concentration, and the sink fraction was examined as a grain-mount.

The dominant mineral is chromite, which occurs as euhedral crystals with abraded edges; some grains are rounded, but these were probably not euhedral in the first place.

Cassiterite is the next most abundant mineral, occurring as small abraded grains with occasional crystal-faces preserved; grainsizes are up to 500 μ, but most are in the 100-300 μ range. Most are dark smoky amber-brown, characteristic of metasomatic Sn deposits, with a minority being zoned brown-red and more typical of greisen deposits; these comments, though somewhat empirical, are based on many observations.

Other minerals include traces of rutile, monazite, ?xenotime and sphene; rare well-rounded zircon grains were seen and are probably derived from a sediment. The absence of zircon is quite unusual and indicates that no acid igneous source rocks were exposed.

It is believed that the source of the cassiterite may have been a metasomatic deposit, because of the lack of pneumatolytic minerals. The dominance of chromite would effectively mask the small, dark cassiterite grains.

H.W. Fander, M. Sc.

073

281074

Central Mineralogical Services

CMS

39 Beulah Road
Norwood, S.A. 5067
Telephone 42 5659

Mr. P.A. Roberts
Senior Geologist
Gold Fields Exploration Pty. Ltd.
P.O. Box 835
BURNIE / TAS. 7320

27th July, 1984

REPORT CMS 84/7/19

YOUR REFERENCE:	Letter dated 13.7.1984
DATE RECEIVED:	16th July, 1984
SAMPLE NOS.:	5 Samples
SUBMITTED BY:	P.A. Roberts
WORK REQUESTED:	Petrology

H.W. Fander

H.W. Fander, M. Sc.

074

CENTRAL MINERALOGICAL SERVICES

Date 27th July, 1984

SAMPLE REPORT (Mineralogy, Petrology, Ore Microscopy)

IDENTIFICATION
11086
Oxidised Skarn.

Job No. CMS 84/7/19 Date Received: 16.7.1984

Reference Letter dated 13.7.1984 - P.A. Roberts

Sample No. 11086, WR 2; 63.0-66.0m

Nature of Sample: Crushed Core

DESCRIPTION **SECTION No.** 50927

a. Hand Specimen:

b. Microscopic:

The fragments represent severely altered skarn, and comprise a range of compositions. Some fragments consist only of massive, featureless goethite, and some are clays and goethite-pseudomorphous after Ca/Mg/Fe silicates.

Relict patches of ?vesuvianite and grossularite garnet are preserved in places, showing alteration to pale chlorite or a serpentine mineral, which merges into the surrounding brown ferruginous clay matrix. There are a few black opaque patches of a mineral which may be ilvaite (and could be Sn-bearing).

No cassiterite was detected; wisps and small patches of a submicroscopic, leucoxene-like white substance occur with the clays and could be cryptocrystalline SnO_2, but this is uncertain.

The source for the WO_3 is not known; goethite can be tungstiferous, but only electron-probe microanalysis is likely to establish whether this is so here. Another tungsten mineral occurring in oxidised rocks, e.g. at Kara, is anthoinite, a white clay-like Al-tungstate (with H_2O); this is difficult to identify unless present in sufficient amount for XRD.

H.W. Fander, M. Sc.

073

CENTRAL MINERALOGICAL SERVICES

Date 27th July, 1984

SAMPLE REPORT (Mineralogy, Petrology, Ore Microscopy)

IDENTIFICATION
11088
Skarn

Job No. CMS 84/7/19 Date Received: 16.7.1984

Reference Letter dated 13.7.1984 - P.A. Roberts

Sample No. 11088, WR 2; 67·0-68·0m

Nature of Sample: Crushed Core

DESCRIPTION **SECTION No.** 50928

a. Hand Specimen:

b. Microscopic:

This sample includes fresh and weathered, oxidised skarn fragments, and there are features common to this sample and the previous one.

The fresher fragments mainly consist of granular pale grossularite garnet, with embedded magnetite, occasional arsenopyrite, and a black opaque fibrous mineral, apparently fairly soft/brittle, which is believed to be a member of the ludwigite-vonsenite series of Fe-Mg borates, together with a related dark green mineral which is probably hulsite (Sn-bearing ludwigite); some fragments consist mainly of small prismatic crystals of pale greenish vesuvianite. Occasional small apatite crystals are also present.

The weathered material consists of ferruginous clays, goethite, oxidised chlorite, and shreds of green iron-chlorite.

No cassiterite was identified; it is probable that both the soluble and insoluble Sn is contained in the ludwigite-hulsite group of minerals, with the possibility that Sn-bearing ilvaite may also be present (this is probably less soluble than the borates).

H.W. Fander, M. Sc.

281076

076 **CENTRAL MINERALOGICAL SERVICES**

Date 27th July, 1984

SAMPLE REPORT (Mineralogy, Petrology, Ore Microscopy)

IDENTIFICATION
11089
Skarn with Scheelite

Job No. CMS 84/7/19 Date Received: 16.7.1984

Reference Letter dated 13.7.1984 - P.A. Roberts

Sample No. 11089 , WR 2, 68·0 - 69·0m

Nature of Sample: Crushed Core

DESCRIPTION **SECTION No.** 50929

a. Hand Specimen:

b. Microscopic:

Most of the fragments are reasonably fresh, with minor serpentinisation and oxidation.

The sample contains conspicuous scheelite, as "free" fragments of single crystals up to 1.5 mm in size, and as complete crystals associated with fragments of pyritised pyrrhotite.

The major calc-silicate mineral is grossularite garnet, with minor vesuvianite; there are patches of a black opaque mineral tentatively assigned to the ludwigite-vonsenite-hulsite group of borates. Since no cassiterite was identified, this may be the only primary source of Sn, but this aspect needs further investigation.

Apart from one fragment of pyritised pyrrhotite associated with scheelite, the paragenesis of the scheelite is not known, because the scheelite fragments are free; thus, this material is not suitable for petrological or paragenetic studies - solid core is required.

Other sulphides present include arsenopyrite, and pyrite veinlets which cut the silicates and are therefore younger.

H.W. Fander, M. Sc.

07

CENTRAL MINERALOGICAL SERVICES

Date 27th July, 1984

SAMPLE REPORT (Mineralogy, Petrology, Ore Microscopy)

IDENTIFICATION
11123
Altered Skarn

Job No. CMS 84/7/19 Date Received: 16.7.1984

Reference Letter dated 13.7.1984 - P.A. Roberts

Sample No. 11123 , WR 5 ; 69·0-71·0m

Nature of Sample: Crushed Core

DESCRIPTION **SECTION No.** 50930

a. Hand Specimen:

b. Microscopic:

Although this material is severely altered and ferruginised, some primary skarn minerals are preserved and suggest at least a broad correlation with 11086-89.

Most fragments consist of a finely-cellular mass of earthy goethite, with typical garnet textures; some contain residual grossularite garnet laced with fine goethite networks; there are goethite pseudomorphs after an acicular mineral which may have been vesuvianite or another calc-silicate, and aggregates of a black mineral which could be ilvaite or ludwigite-hulsite.

The relatively high insoluble Sn content of the sample has not been satisfactorily accounted for except possibly by the presence of ilvaite/hulsite, but this is speculative. By analogy with other, similar skarns, the Sn is much more likely to be in silicate form (or other form such as borate) than as cassiterite; garnet is another strong possibility of course (i.e. apart from ilvaite).

Further investigation is needed on this material, but studying concentrates produced by Superpanning a finely crushed sample.

H.W. Fander, M. Sc.

281078

078

CENTRAL MINERALOGICAL SERVICES

Date 27th July, 1984

SAMPLE REPORT (Mineralogy, Petrology, Ore Microscopy)

IDENTIFICATION
11124
Altered Skarn

Job No. CMS 84/7/19 Date Received: 16.7.1984

Reference Letter dated 13.7.1984 - P.A. Roberts

Sample No. 11124, WR 5; 71·0-73·0m

Nature of Sample: Crushed Core

DESCRIPTION **SECTION No.** 50931

a. Hand Specimen:

b. Microscopic:

This sample is very similar to 11123, with the addition of a few fragments of mildly recrystallized quartzite.

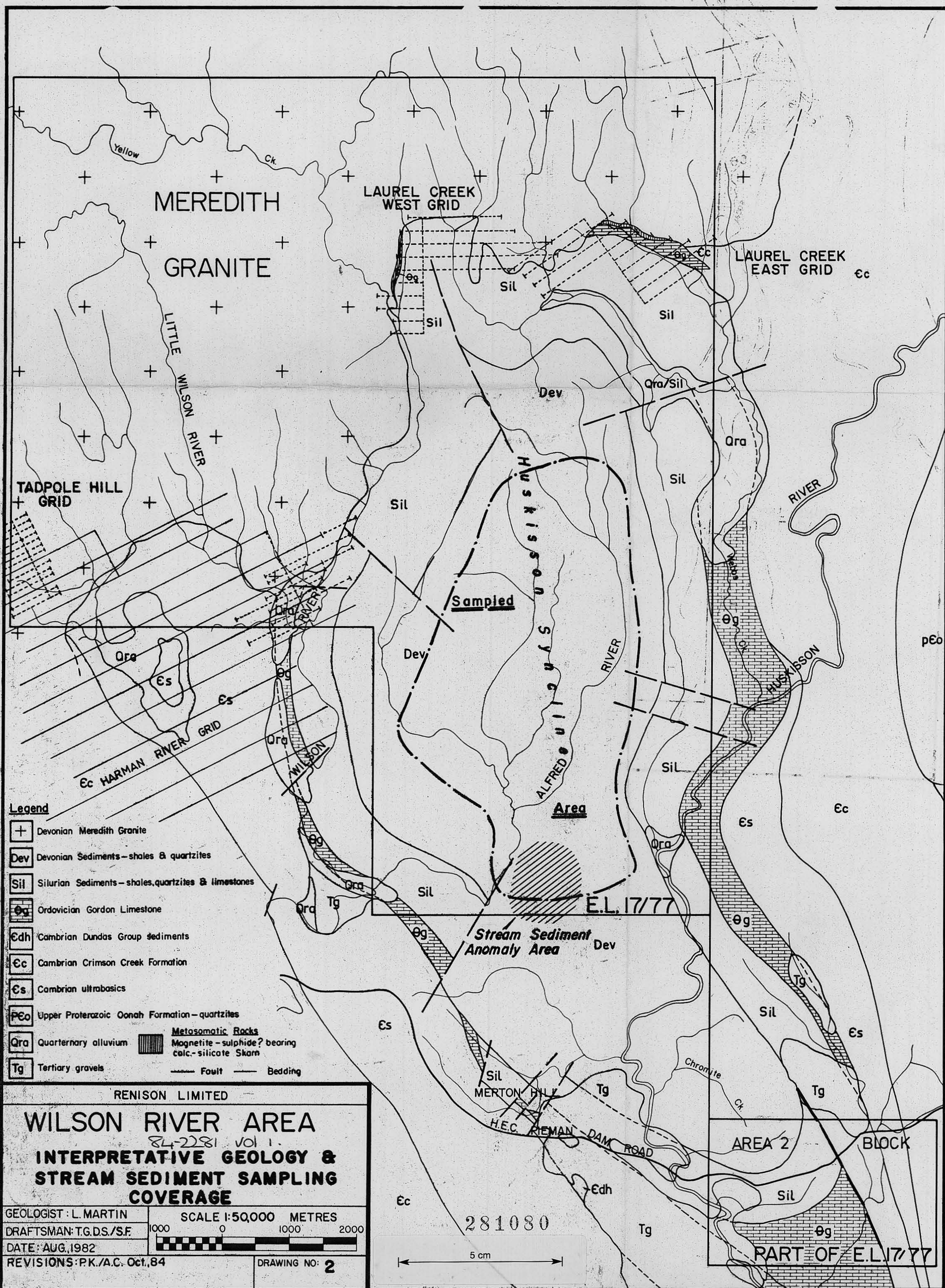
The fragments consist of finely-cellular goethite, of clay alteration-products with relict silicate textures after garnet and an acicular mineral (?amphibole), and residual granular masses of grossularite garnet with goethite networks. Some fragments contain patches of a black opaque mineral which may be ilvaite or ludwigite-hulsite, but is too poorly-defined. Isolated magnetite grains are also present.

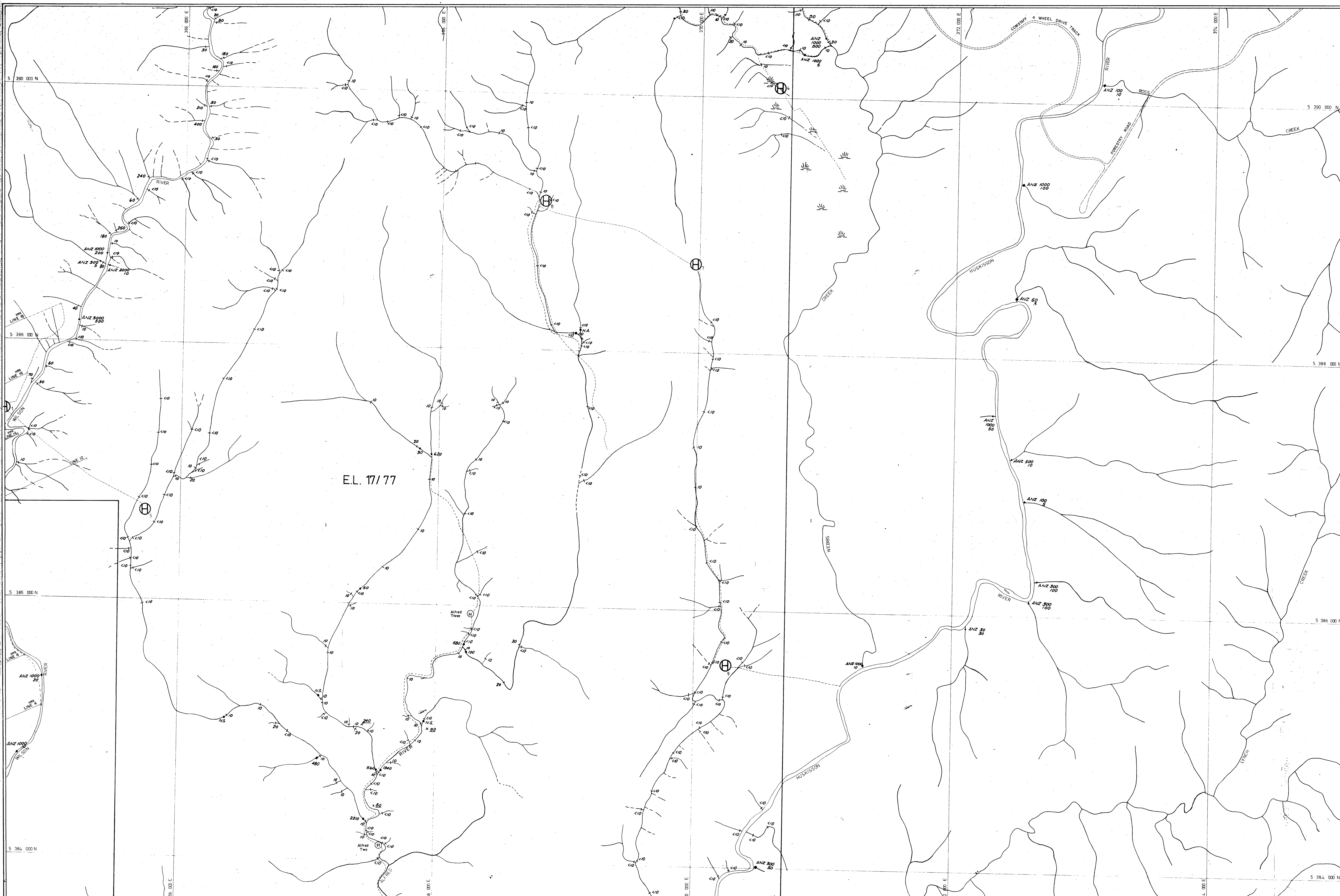
The quartzite has relict clastic textures which show that the rock was a fine-grained orthoquartzite, with occasional heavy mineral grains (zircon, leucoxene), which was mildly recrystallized or incipiently metamorphosed.

As for 11123, the Sn content has not been accounted for in terms of discrete Sn minerals; the fact that almost half of the Sn is as acid-soluble material suggests one or more silicate sources which, on weathering, produce stanniferous goethite as the soluble Sn source. Clearly, all this is speculative and requires more detailed study, which can be undertaken if requested.

H.W. Fander, M. Sc.

281079


MEREDITH GRANITE
Yellow Ck.
LAUREL CREEK WEST GRID
LAUREL CREEK EAST GRID
LITTLE WILSON RIVER
TADPOLE HILL GRID
Ɛc HARMAN RIVER GRID
WILSON RIVER
Huskisson Syncline
Sampled Area
ALFRED RIVER
HUSKISSON RIVER
Webbs Ck
E.L. 17/77
Stream Sediment Anomaly Area
Chromite Ck
MERTON HILL
H.E.C. RIEMAN DAM ROAD
AREA 2 BLOCK
PART OF E.L. 17/77
Sil
Dev
Qra
Qra/Sil
Θg
Ɛc
Ɛs
Ɛdh
Tg
pƐo
Legend
Devonian Meredith Granite
Dev Devonian Sediments – shales & quartzites
Sil Silurian Sediments – shales, quartzites & limestones
Θg Ordovician Gordon Limestone
Ɛdh Cambrian Dundas Group sediments
Ɛc Cambrian Crimson Creek Formation
Ɛs Cambrian ultrabasics
PƐo Upper Proterozoic Oonah Formation – quartzites
Qra Quarternary alluvium
Tg Tertiary gravels
Metasomatic Rocks
Magnetite – sulphide? bearing calc.-silicate Skarn
Fault
Bedding
RENISON LIMITED
WILSON RIVER AREA
84-2281 Vol 1.
INTERPRETATIVE GEOLOGY & STREAM SEDIMENT SAMPLING COVERAGE
GEOLOGIST: L. MARTIN
DRAFTSMAN: T.G.D.S./S.F.
DATE: AUG. 1982
REVISIONS: P.K./A.C. Oct. 84
SCALE 1:50,000 METRES
1000 0 1000 2000
DRAWING NO: 2
281080
5 cm



281081

5 cm

LEGEND

Huskisson Syncline – Gold Fields (1984)

- Stream Sediment Sample
- Panned Concentrate
- Rock Chip Sample

MH — Merton Hill Orientation Survey – Renison Ltd. (1980)

Wilson River – Stream Sediment Sampling – Renison Ltd. (1981)

A.N.Z Exploration Pty Ltd. – Stream Sediment Sampling (1976)

ANZ
x Panned Sample
y Stream Sediment Sieved Sample
> p.p.m.

Helipad

Flagged Walking Tracks

HRG LINE 14 — Cut Grid Line Harman River Grid

4 Wheel Drive Track

Unsealed Road

CORINNA D/1	CORINNA D/2
CORINNA D/3	CORINNA D/4

84-2281 VOL. 1.

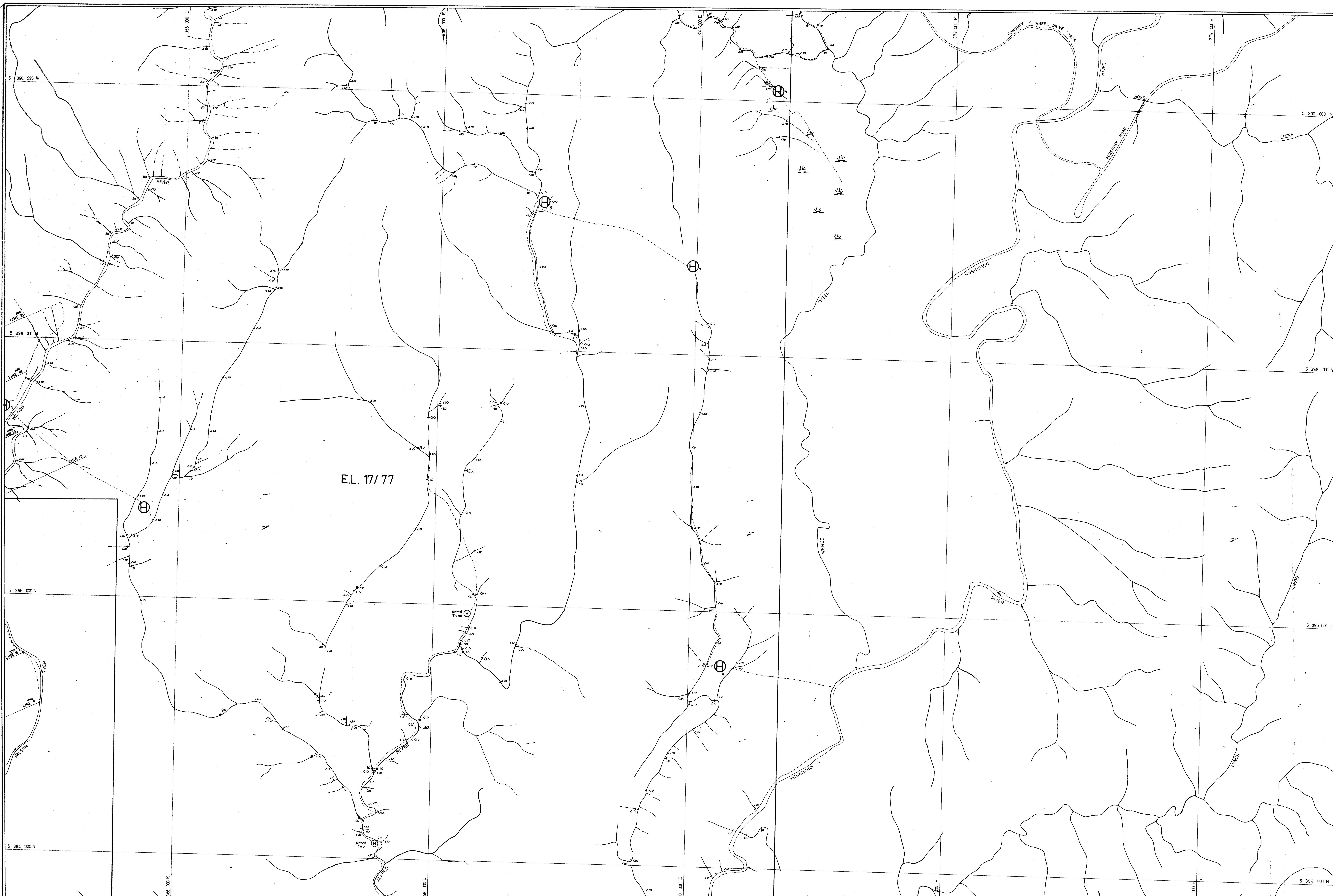
RENISON LIMITED

CORINNA D/2

STREAM SEDIMENT GEOCHEMISTRY

Sn in p.p.m.

GEOLOGIST	: L.M, P.Komyshan	SCALE · 1:10,000 METRES
DRAUGHTSMAN	S.F.	200 0 200 400
DATE	: May, 81 Sep., 84	
REVISIONS	: 1389	DRAWING No. 3



LEGEND

Huskisson Syncline – Gold Fields (1984)

- Stream Sediment Sample
- Panned Concentrate
- Rock Chip Sample

- MH Merton Hill Orientation Survey – Renison Ltd. (1980)
- Wilson River – Stream Sediment Sampling – Renison Ltd. (1981)
- A.N.Z. Exploration Pty. Ltd – Stream Sediment Sampling (1976)
- ANZ: x Panned Sample; y Stream Sediment Sieved Sample; > p.p.m.

- Helipad
- Flagged Walking Tracks
- HRG LINE 14 Cut Grid Line Harman River Grid
- 4 Wheel Drive Track
- Unsealed Road

CORINNA D/1	CORINNA D/2
CORINNA D/3	CORINNA D/4

281082

5 cm

84-2281 Vol 1. RENISON LIMITED

CORINNA D/2

STREAM SEDIMENT GEOCHEMISTRY

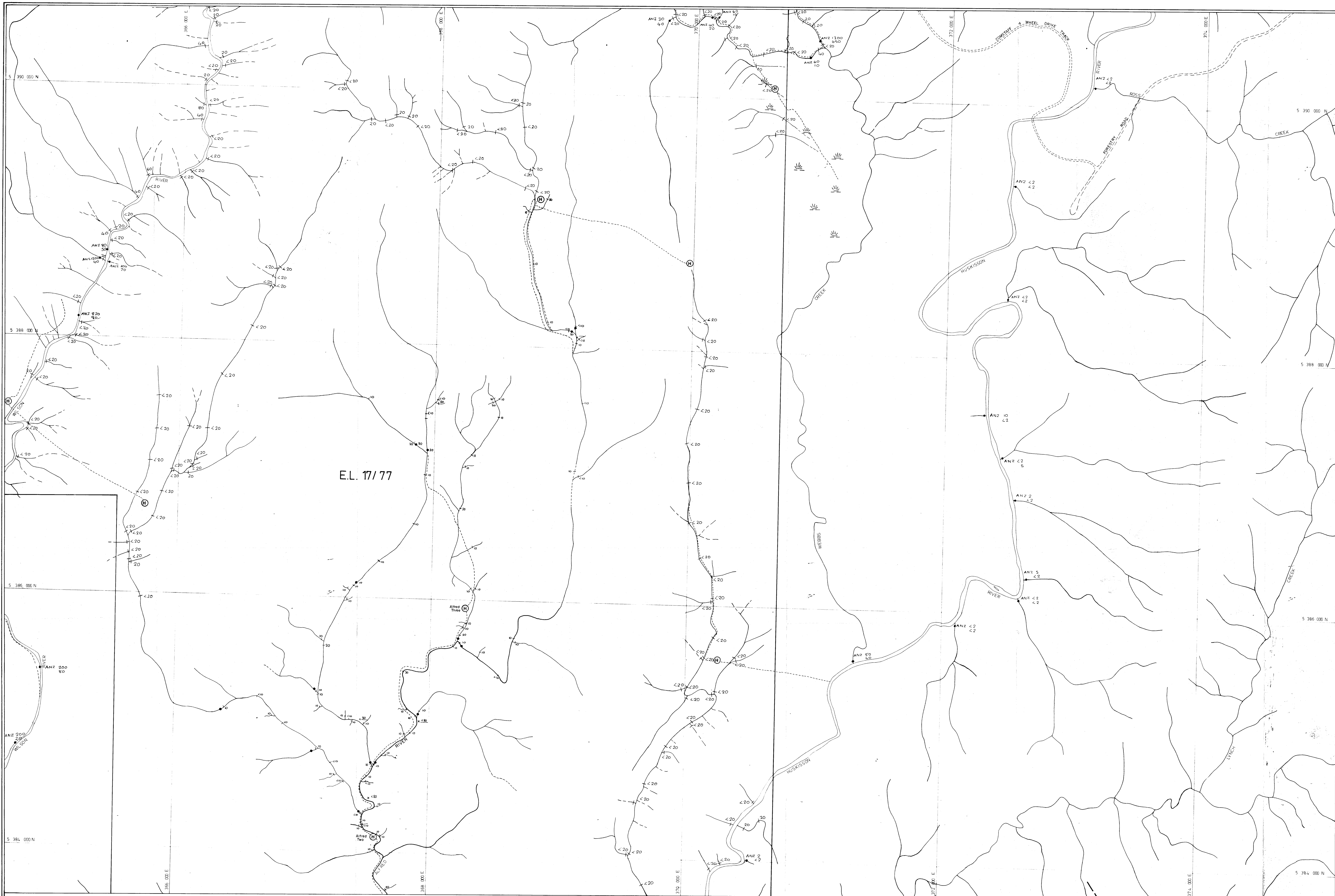
As in p.p.m.

GEOLOGIST	: L.M./P.K.
DRAUGHTSMAN	: S.F.
DATE	: Oct.,81/Sep.,84
REVISIONS	:

SCALE · 1:10,000 METRES — 200 0 200 400

1390

DRAWING No. FIG. 4



LEGEND

Huskisson Syncline - Gold Fields (1984)
- Stream Sediment Sample
- Panned Concentrate
- Rock Chip Sample

MH — Mertor Hill Orientation Survey - Renison Ltd (1980)
Wilson River - Stream Sediment Sampling - Renison Ltd (1981)
A N Z Exploration Pty Ltd - Stream Sediment Sampling (1976)
ANZ
x Panned Sample
y Stream Sediment Sieved Sample
> p.p.m.

H[2] Helipad
Flagged Walking Tracks
HRG LINE 14 Cut Grid Line Harman River Grid
4 Wheel Drive Track
Unsealed Road

CORINNA D/1	CORINNA D/2
CORINNA D/3	CORINNA D/4

281083

5 cm

84-2281 Vol. 1

RENISON LIMITED

CORINNA D/2

STREAM SEDIMENT GEOCHEMISTRY

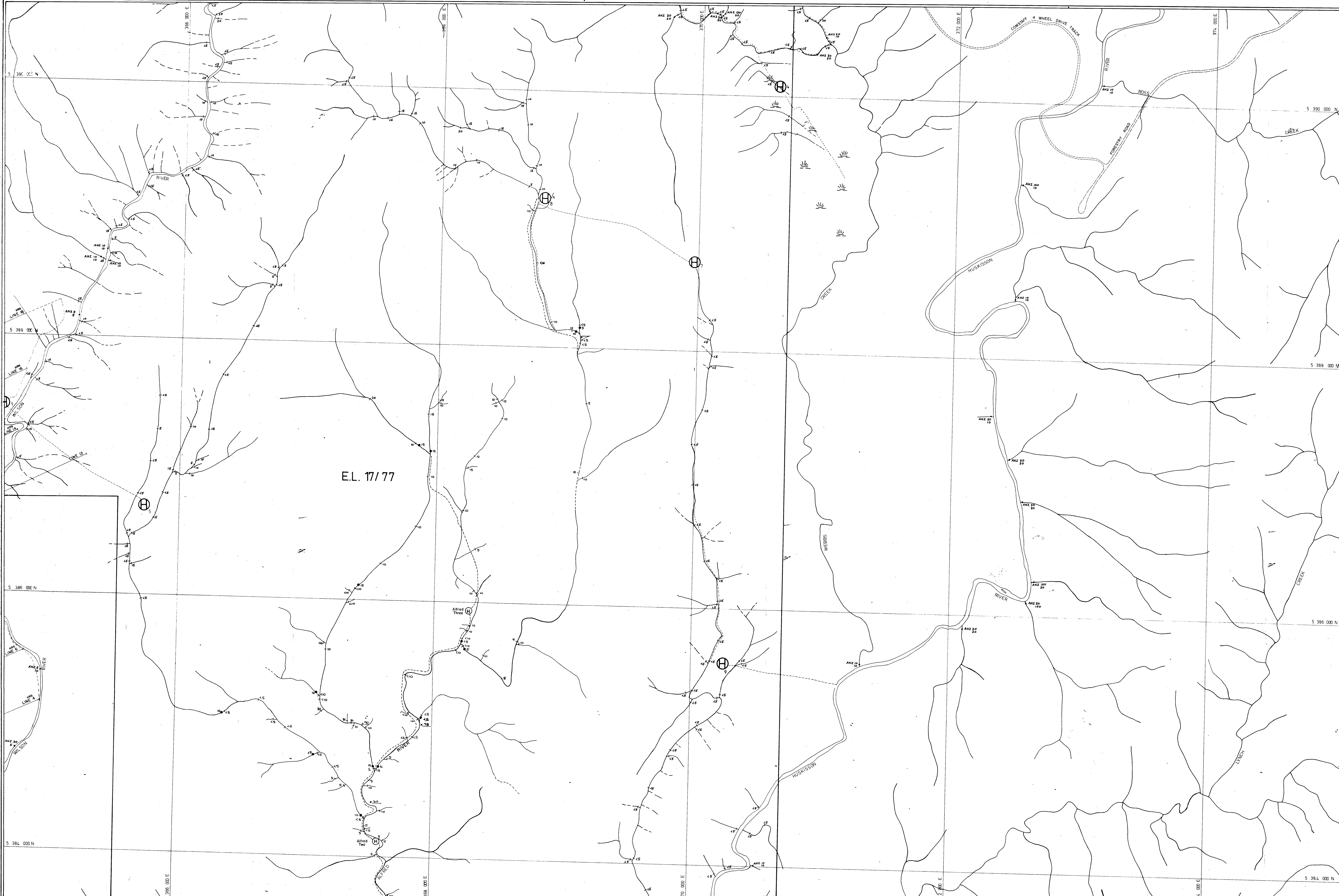
WO_3 in p.p.m.

GEOLOGIST	: L. Martin, P.K.
DRAUGHTSMAN	: S. F
DATE	: May, 81, Sep, 84
REVISIONS	:

SCALE 1:10,000 METRES
200 0 200 400

1391

DRAWING No.
FIG. 5



LEGEND

Huskisson Syncline – Gold Fields (1984)
- Stream Sediment Sample
- Panned Concentrate
- Rock Chip Sample

- MH Merton Hill Orientation Survey – Renison Ltd (1980)
- Wilson River – Stream Sediment Sampling – Renison Ltd. (1981)
- A.N.Z. Exploration Pty Ltd. – Stream Sediment Sampling (1976)
  - x Panned Sample
  - y Stream Sediment Sieved Sample
- ANZ > p.p.m.

- Helipad
- Flagged Walking Tracks
- HRG LINE 14 Cut Grid Line Harman River Grid
- 4 Wheel Drive Track
- Unsealed Road

CORINNA D/1	CORINNA D/2
CORINNA D/3	CORINNA D/4

281084

5 cm

84-2281 vol 1

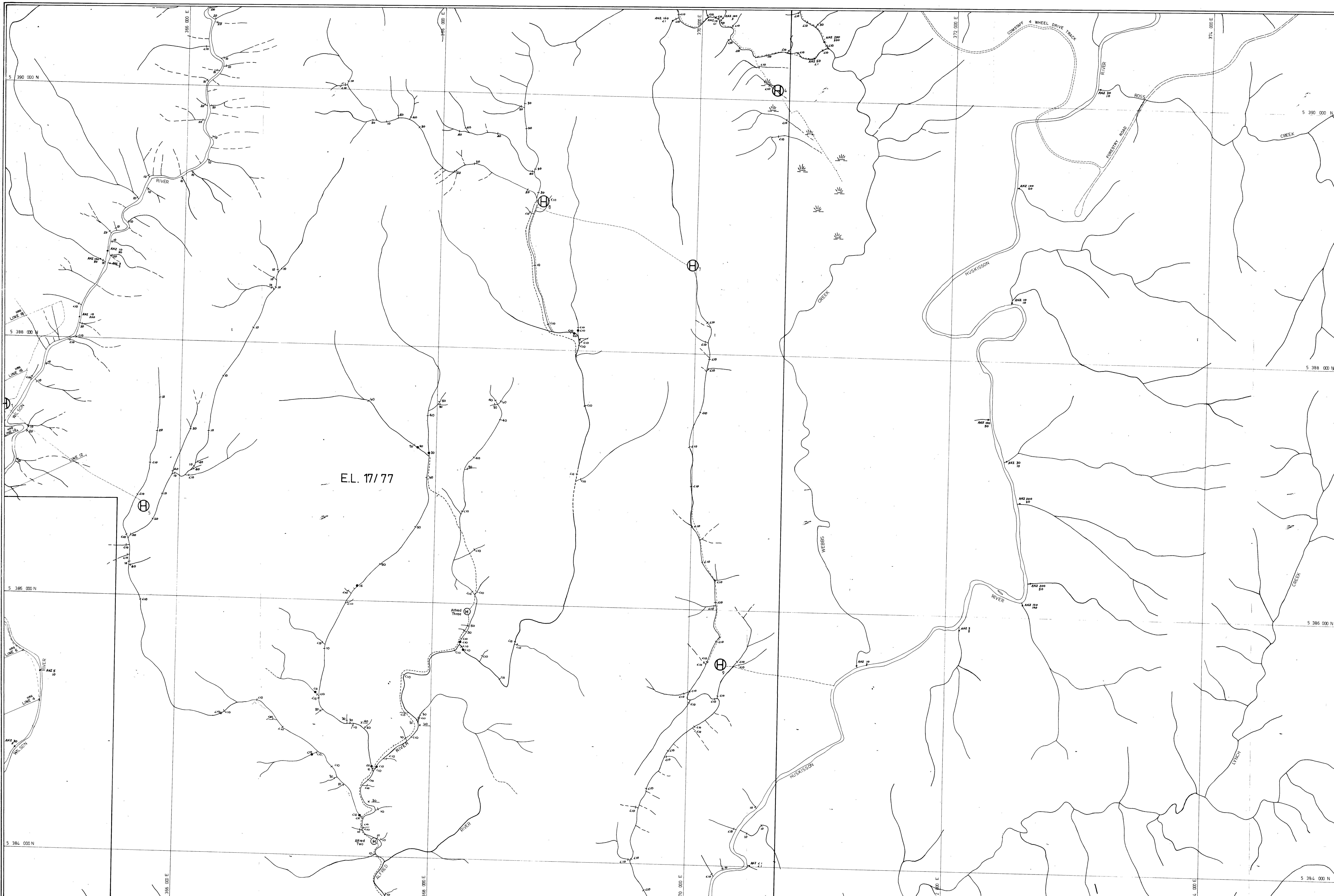
RENISON LIMITED

CORINNA D/2

STREAM SEDIMENT GEOCHEMISTRY

Cu in p.p.m.

GEOLOGIST : L.M. / S.F.	SCALE 1:10,000 METRES (200 0 200 400)
DRAUGHTSMAN : S.F.	
DATE : Oct, 81 / Sep., 84	
REVISIONS : 1392	DRAWING No. FIG. 6



LEGEND

Huskisson Syncline - Gold Fields (1984)

- Stream Sediment Sample
- Panned Concentrate
- Rock Chip Sample

- MH — Merton Hill Orientation Survey - Renison Ltd (1980)
- Wilson River - Stream Sediment Sampling - Renison Ltd. (1981)
- A.N.Z. Exploration Pty Ltd. - Stream Sediment Sampling (1976)
- ANZ
  - x Panned Sample
  - y Stream Sediment Sieved Sample
  - > p.p.m.

- Helipad
- Flagged Walking Tracks
- HRG LINE 14 — Cut Grid Line Harman River Grid
- 4 Wheel Drive Track
- Unsealed Road

CORINNA D/1	CORINNA D/2
CORINNA D/3	CORINNA D/4

281085

5 cm

84-2281 vol. 1.

RENISON LIMITED

CORINNA D/2

STREAM SEDIMENT GEOCHEMISTRY

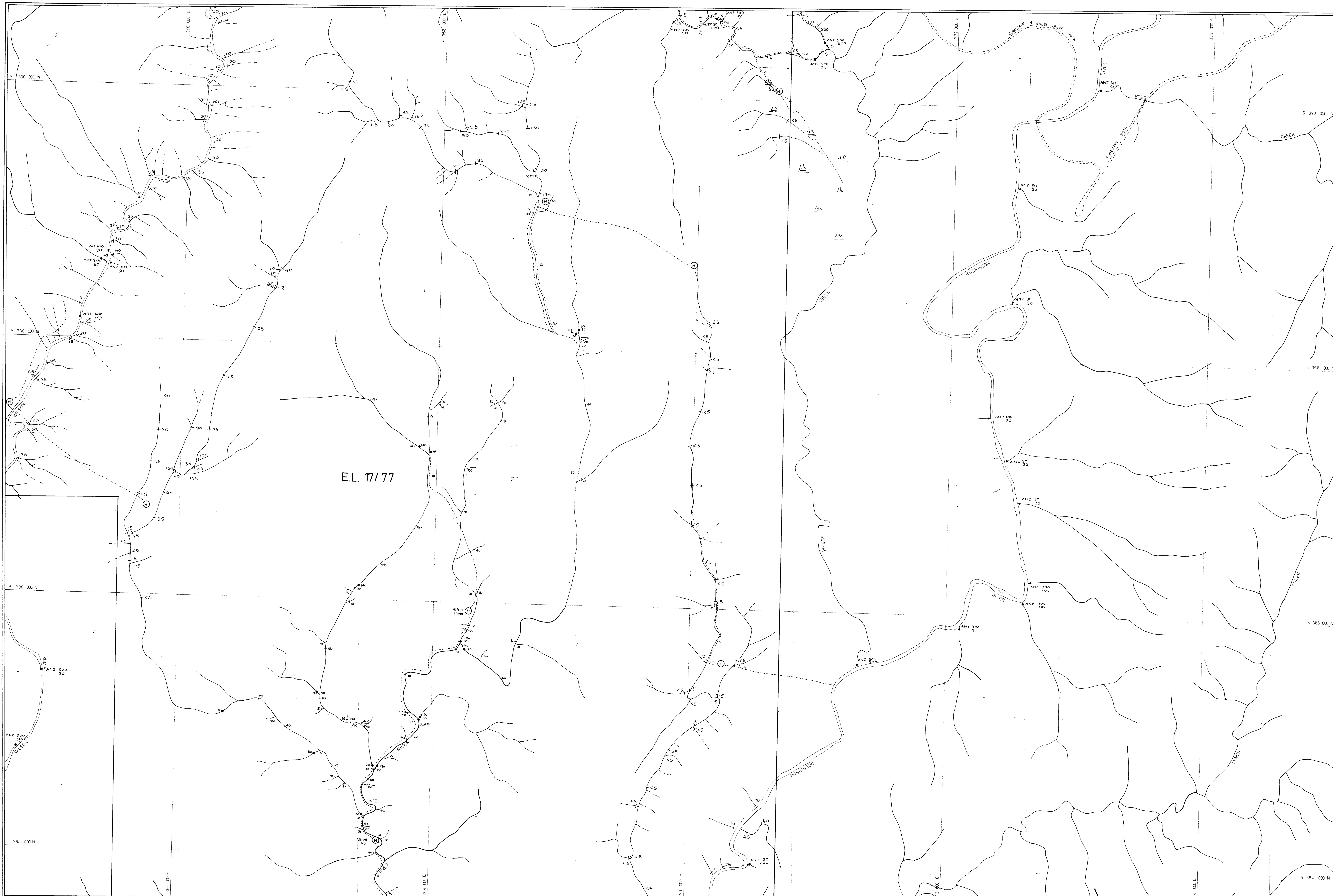
Pb in p.p.m.

GEOLOGIST	: L. Martin / P.K.
DRAUGHTSMAN	: S.F.
DATE	: Oct. 1981/Sep.84
REVISIONS	:

SCALE 1:10,000 METRES
200 0 200 400

1393

DRAWING No. **FIG. 7**



LEGEND

Huskisson Syncline - Gold Fields (1984)

- Stream Sediment Sample
- Panned Concentrate
- Rock Chip Sample

MH — Merton Hill Orientation Survey - Renison Ltd (1980)

Wilson River - Stream Sediment Sampling - Renison Ltd (1981)

A N Z Exploration Pty Ltd - Stream Sediment Sampling (1976)

x Panned Sample

y Stream Sediment Sieved Sample

ANZ > p.p.m.

H² Helipad

Flagged Walking Tracks

HRG LINE 14 — Cut Grid Line Harman River Grid

4 Wheel Drive Track

Unsealed Road

CORINNA D/1	CORINNA D/2
CORINNA D/3	CORINNA D/4

84-2281 vol 1.

RENISON LIMITED

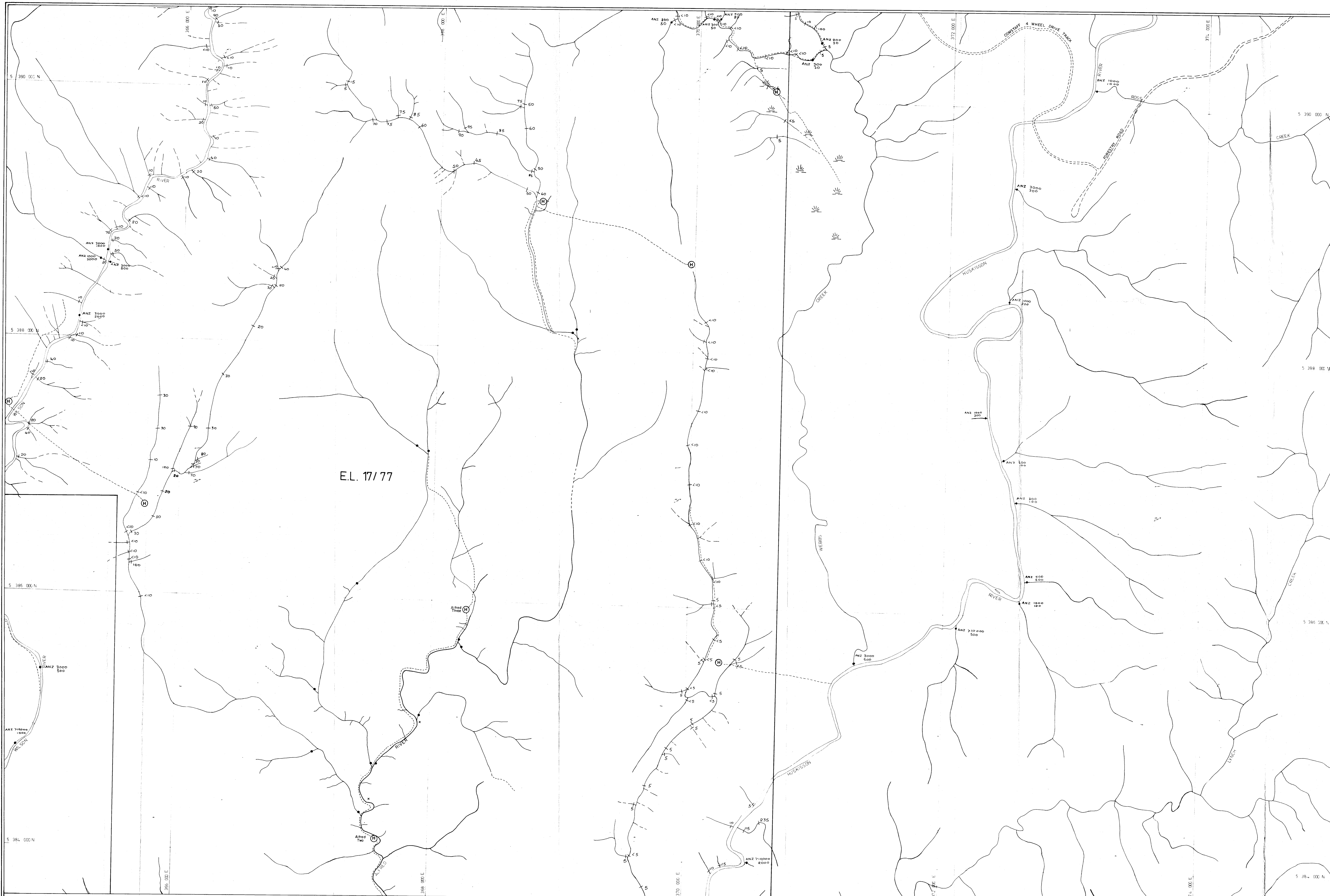
CORINNA D/2

STREAM SEDIMENT GEOCHEMISTRY

Zn in p.p.m.

GEOLOGIST	L.M., P.K.	SCALE 1 10,000 METRES
DRAUGHTSMAN	S.F	200 0 200 400
DATE	May, 81/ Sep., 84	
REVISIONS	1394	DRAWING No FIG. 8

1394



281087

5 cm

LEGEND

Huskisson Syncline - Gold Fields (1984)

- Stream Sediment Sample
- Panned Concentrate
- Rock Chip Sample

MH Merton Hill Orientation Survey - Renison Ltd (1980)

Wilson River - Stream Sediment Sampling - Renison Ltd (1981)

A.N.Z. Exploration Pty Ltd - Stream Sediment Sampling (1976)

ANZ
- x Panned Sample
- y Stream Sediment Sieved Sample

> p.p.m.

Helipad

Flagged Walking Tracks

HRG LINE 14 Cut Grid Line Harman River Grid

4 Wheel Drive Track

Unsealed Road

CORINNA D/1	CORINNA D/2
CORINNA D/3	CORINNA D/4

84-2281 Vol 1.

RENISON LIMITED

CORINNA D/2

STREAM SEDIMENT GEOCHEMISTRY

Cr in p.p.m.

GEOLOGIST	L.M./P.K.	SCALE 1:10 000 METRES
DRAUGHTSMAN	S.F.	
DATE	May, 81 / Sep, 84	
REVISIONS		DRAWING No

1395 FIG. 9

LEGEND

Huskisson Syncline – Gold Fields (1984)

- Stream Sediment Sample
- Panned Concentrate
- Rock Chip Sample

- MH — Merton Hill Orientation Survey – Renison Ltd (1980)
- Wilson River – Stream Sediment Sampling – Renison Ltd. (1981)
- A N Z Exploration Pty Ltd – Stream Sediment Sampling (1976)
  - x Panned Sample
  - y Stream Sediment Sieved Sample
- ANZ > p.p.m.

- H² Helipad
- Flagged Walking Tracks
- HRG LINE 14 — Cut Grid Line Harman River Grid
- 4 Wheel Drive Track
- Unsealed Road

CORINNA D/1	CORINNA D/2
CORINNA D/3	CORINNA D/4

281088

5 cm

84-2281 vol. 1

RENISON LIMITED

CORINNA D/2

STREAM SEDIMENT GEOCHEMISTRY

Au in p.p.m.

GEOLOGIST	L. Martin / P.K.	SCALE 1 10,000 METRES
DRAUGHTSMAN	J Matthews / S.F.	200 0 200 400
DATE	Oct 1981 / Sep. 84	
REVISIONS	1396	DRAWING No FIG. 10

LEGEND

☐	≥30 ppm
MH	Merton Hill Orientation Survey - Renison Ltd. (1980)
	Wilson River - Stream Sediment Sampling - Renison Ltd (1981)
	A.N.Z. Exploration Pty. Ltd. - Stream Sediment Sampling (1976)
ANZ	x - Planned sample y - Stream sediment sieved sample

Huskisson Syncline - Gold Fields (1984)

- + Stream Sediment Sample
- ● Panned Concentrate
- × Rock Chip Sample

CORINNA D/1	CORINNA D/2
CORINNA D/3	CORINNA D/4
ZEEHAN B/1	ZEEHAN B/2
ZEEHAN B/3	ZEEHAN B/4

True N
Mag N

84-2281 vol. 1.

RENISON LIMITED

CORINNA D/4.

STREAM SEDIMENT GEOCHEMISTRY

As in p.p.m. 1397

SCALE. 1:10,000 METRES

200 0 200 400 600

DRAWN	L.M./P.K.
TRACED	S.F.
DATE	May, 81 Sep. 84
SCALE	1:10,000
DRAWING No.	

FIG. 12

84-2281 Vol. 1.

RENISON LIMITED

CORINNA D/4.

STREAM SEDIMENT GEOCHEMISTRY

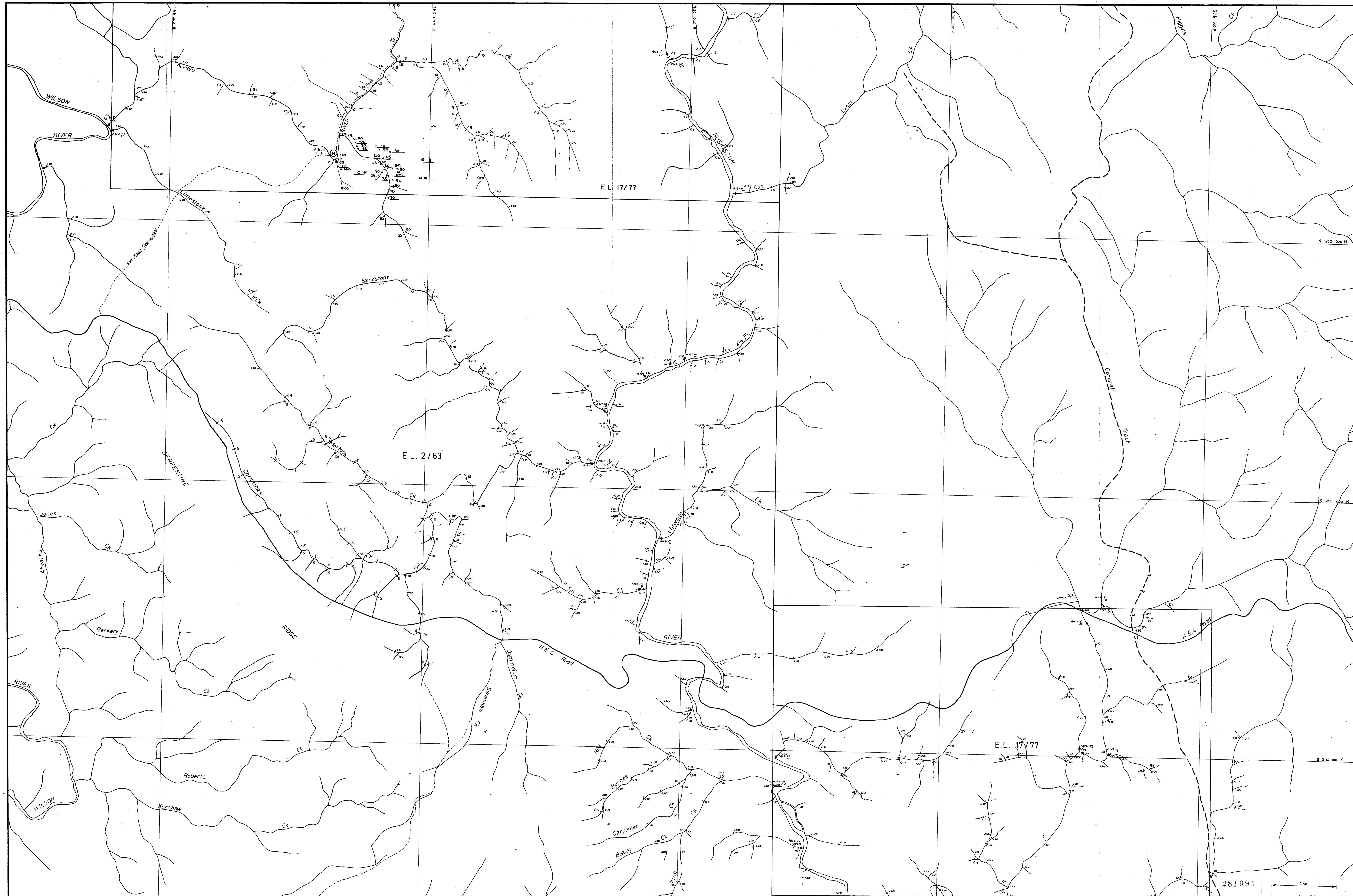
WO_3 in p.p.m. 1398

SCALE. 1: 10,000 METRES

200 0 200 400 600

DRAWN	L.M./P.K.
TRACED	S.F.
DATE	Sep., 84
SCALE	1:10,000
DRAWING No.	

FIG. 13



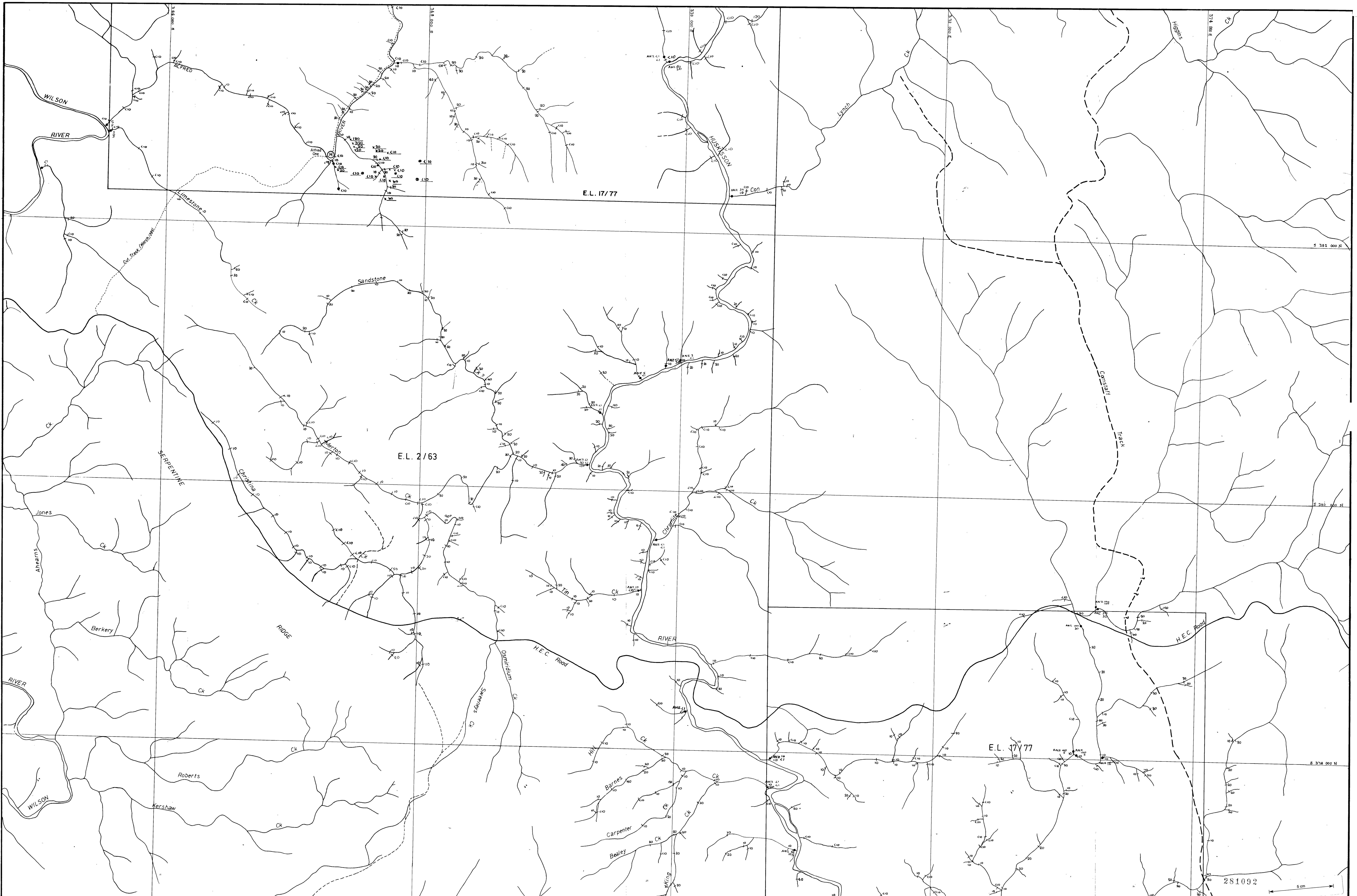
LEGEND

(box)	≥15 p.p.m
MH	Merton Hill Orientation Survey - Renison Ltd. (1980)
	Wilson River - Stream Sediment Sampling - Renison Ltd. (1981)
	A.N.Z. Exploration Pty. Ltd. - Stream Sediment Sampling (1976)
ANZ	x - Planned sample y - Stream sediment sieved sample

Huskisson Syncline - Gold Fields (1984)

- Stream Sediment Sample
- Panned Concentrate
- Rock Chip Sample

RENISON LIMITED 84-2281 vol 2.	DRAWN	L.M./P.K.
CORINNA D/4.	TRACED	S.F.
STREAM SEDIMENT GEOCHEMISTRY	DATE	May, 81/ Sep., 84
Cu in p.p.m. 1399	SCALE	1:10,000
SCALE. 1:10,000 METRES (200 0 200 400 600)	DRAWING No.	**FIG. 14**



LEGEND

- >20 p.p.m
- MH — Merton Hill Orientation Survey - Renison Ltd. (1980)
- Wilson River - Stream Sediment Sampling - Renison Ltd (1981)
- A.N.Z. Exploration Pty. Ltd. - Stream Sediment Sampling (1976)
- ANZ — x - Planned sample; y - Stream sediment sieved sample

Huskisson Syncline - Gold Fields (1984)

- Stream Sediment Sample
- Panned Concentrate
- Rock Chip Sample

RENISON LIMITED 84-2281 vol 2.	DRAWN: L.M./P.K.
CORINNA D/4.	TRACED: S.F.
STREAM SEDIMENT GEOCHEMISTRY	DATE: May, 81 Sep. 84
Pb in p.p.m. 1400	SCALE: 1:10,000
SCALE. 1:10,000 METRES	DRAWING No.
	FIG. 15

LEGEND

>60 p.p.m.

MH — Merton Hill Orientation Survey - Renison Ltd (1980)

Wilson River - Stream Sediment Sampling - Renison Ltd (1981)

A.N.Z. Exploration Pty. Ltd. - Stream Sediment Sampling (1976)

ANZ x - Planned sample
y - Stream sediment sieved sample

Huskisson Syncline – Gold Fields (1984)

Stream Sediment Sample

Panned Concentrate

Rock Chip Sample

RENISON LIMITED 84-2281 Vol 2.	DRAWN L.M./P.K.
CORINNA D/4	TRACED S.F.
STREAM SEDIMENT GEOCHEMISTRY	DATE May, 81/ Sep., 84
Zn in p.p.m. 1401	SCALE 1:10 000
	DRAWING No.
SCALE. 1:10 000 METRES 200 0 200 400 600	FIG. 16

LEGEND

Huskisson Syncline – Gold Fields (1984)

- Stream Sediment Sample
- Panned Concentrate
- Rock Chip Sample

- MH — Merton Hill Orientation Survey – Renison Ltd (1980)
- Wilson River – Stream Sediment Sampling – Renison Ltd. (1981)
- A N Z Exploration Pty Ltd – Stream Sediment Sampling (1976)
  - x Panned Sample
  - y Stream Sediment Sieved Sample
- ANZ > p p m.

- Helipad
- Flagged Walking Tracks
- HRG LINE 14 — Cut Grid Line Harman River Grid
- 4 Wheel Drive Track
- Unsealed Road

CORINNA D/1	CORINNA D/2	
CORINNA D/3	CORINNA D/4	
ZEEHAN E/1	ZEEHAN E/2	
ZEEHAN E/3	ZEEHAN E/4	

RENISON LIMITED 84-2281 vol 2.

CORINNA D/4

STREAM SEDIMENT GEOCHEMISTRY

Cr in p.p.m. 1402

SCALE. 1:10 000 METRES

200 0 200 400 600

DRAWN	L.M./P.K.
TRACED	S.F.
DATE	May, 81 Sep., 84
SCALE	1:10 000
DRAWING No.	

FIG. 17

Huskisson Syncline – Gold Fields (1984)

- Stream Sediment Sample
- Panned Concentrate
- Rock Chip Sample

LEGEND:

- Walking Track
- 4 Wheel Drive Track
- Unsealed Road
- Grid Line

RENISON LIMITED 84-2281 Vol 2.

CORINNA D/4.

STREAM SEDIMENT GEOCHEMISTRY

Au in p.p.m. 1403

SCALE. 1:10,000 METRES

200 0 200 400 600

DRAWN	P.K.
TRACED	S.F.
DATE	Sept., 84
SCALE	1:10,000
DRAWING No.	

FIG. 18

RENISON LIMITED 84-2281 vol 2.	DRAWN	T.C.
E.L. 17/77 - WILSON RIVER AREA	TRACED	S.F.
LAUREL CREEK WEST GRID	DATE	Sep.,84
LINE L.C.W. 525 E, 650 E	SCALE	1:1000
SECTION LOOKING NORTH 1404	DRAWING No.	
SCALE. METRES 100 0 100 200 300	19	

I.P.

CHARGEABILITY

RESISTIVITY

5 cm

MAGNETICS

5000 γ SCALE

1000 γ SCALE

GEOCHEMISTRY

Sn
Cu
Pb
Zn
As
WO_3

SEDIMENTARY ROCKS

Quaternary
Qrd Recent Alluvium
Tg Tertiary Gravels

Devonian
Db Bell Shale
Df Florence Quartzite

Silurian
Undiff. Amber Shale Sa
Sas Siliceous Sandstone member
Sal Limestone member
Sc Crotty Quartzite

Ordovician
Og Upper Dundas Group ≡ Huskisson Formation Upper Cambrian
Om? Moina ? Sandstone

Cambrian
€dh Upper Dundas Group ≡ Huskisson Formation Upper Cambrian
€c Crimson Creek Formation Middle Cambrian

Pre-Cambrian
p€o Oonah Quartzite and Schist

IGNEOUS ROCKS

Tb Tertiary Basalt
Dm
Dg-1 Coarse to very coarse Adamellite
Dg-2 Quartz Porphyry and fine grained Porphyritic Granite with wide spread Quartz Tourmaline Alteration
Dgm Microgranite; Microgranite Dykes
Tourmalinized Granite
D?a Devonian ? Acid Intrusives
€s Upper Cambrian Serpentinites, and Mafic-ultra-mafic complexes
€g Cambrian Basic or Gabbroic Rocks

METASOMATIC ROCKS

Magnetite - Sulphide ? Bearing Calc. Silicate Skarn

SYMBOLS

Dip and Strike of Bedding (Facing known)
Dip and Strike of Bedding (Facing unknown)
Dip and Strike of Composition Banding
Dip and Strike of Cleavage, undifferentiated
Axial Plane of small anticline
Anticlinal, Synclinal Axis
Dip and Strike of Jointing
Dip and Strike of Foliation
Observed outcrop
Fossil locality
Interpreted Boundary
Fault, approximate position
Compositional layering in Ultra-mafic
Cleavage parting: shear
Dyke

RENISON LIMITED	DRAWN	T.C.
E.L. 17/77 - WILSON RIVER AREA LAUREL CREEK EAST GRID	TRACED	T.G.D.S.
LINE L.C.E. 2, 4, 6, 8, 10, 12N.	DATE	April, 1983
SECTION LOOKING NORTH 1405	SCALE	1:1000
SCALE 1:1000 METRES 20 0 20 40 60	REVISIONS: Sep., 84	
	FIG. 20 84-2281 vol 2.	

I.P.

CHARGEABILITY

RESISTIVITY

MAGNETICS

5000 γ SCALE

1000 γ SCALE

BEDROCK GEOCHEMISTRY

● Auger Sample. ---- Limit of auger penetration

5 cm

GEOCHEMISTRY

Sn
Cu
Pb
Zn
As
WO_3

SEDIMENTARY ROCKS

Quaternary
- Qra — Recent Alluvium
- Tg — Tertiary Gravels

Devonian
- Db — Bell Shale
- Df — Florence Quartzite

Silurian
- Undiff. Amber Shale — Sa: Sas — Siliceous Sandstone member; Sal — Limestone member
- Sc — Crotty Quartzite

Ordovician
- Ꝋg — Gordon Limestone Invariably weathered and/or altered.
- Ꝋm? — Moina ? Sandstone

Cambrian
- Єdh — Upper Dundas Group ≡ Huskisson Formation Upper Cambrian
- Єc — Crimson Creek Formation Middle Cambrian

Pre-Cambrian
- pЄo — Oonah Quartzite and Schist

IGNEOUS ROCKS

- Tb — Tertiary Basalt
- Dm: Dg-1 — Coarse to very coarse Adamellite; Dg-2 — Quartz Porphyry and fine grained Porphyritic Granite with wide spread Quartz Tourmaline Alteration; Dgm — Microgranite; Microgranite Dykes; Tourmalinized Granite
- D?a — Devonian ? Acid Intrusives
- Єs — Upper Cambrian Serpentinites, and Mafic-ultra-mafic complexes
- Єg — Cambrian Basic or Gabbroic Rocks

METASOMATIC ROCKS

- Magnetite – sulphide? bearing calc-silicate skarn.

SYMBOLS

- Dip and Strike of Bedding (Facing known)
- Dip and Strike of Bedding (Facing unknown)
- Dip and Strike of Composition Banding
- Dip and Strike of Cleavage, undifferentiated
- Axial Plane of small anticline
- Anticlinal, Synclinal Axis
- Dip and Strike of Jointing
- Dip and Strike of Foliation
- Observed outcrop
- Fossil locality
- Interpreted Boundary
- Fault, approximate position
- Compositional layering in Ultra-mafic
- Cleavage: parting: shear
- Dyke

RENISON LIMITED

E.L. 17/77 - WILSON RIVER AREA
LAUREL CREEK EAST GRID
LINES L.C.W. 87·5,75E, 1400N. 1406
SECTION LOOKING NORTH & WEST
SCALE. 1:1000 METRES

DRAWN	T.C.
TRACED	T.G.D.S.
DATE	April, 1983
SCALE	1:1000
REVISIONS: Sep. 84	

FIG. 21

84-2281 Vol 2.

I.P.
- CHARGEABILITY
- RESISTIVITY

MAGNETICS
- 5000 γ SCALE
- 1000 γ SCALE

BEDROCK GEOCHEMISTRY
- Sn
- Cu
- Pb
- Zn
- As
- WO_3

BEDROCK GEOCHEMISTRY
- Auger Sample
- Limit of auger penetration

5 cm

SEDIMENTARY ROCKS

Quaternary
- Qra — Recent Alluvium
- Tg — Tertiary Gravels

Devonian
- Db — Bell Shale
- Df — Florence Quartzite

Silurian
- Sa — Undiff. Amber Shale; Sas — Siliceous Sandstone member; Sal — Limestone member
- Sc — Crotty Quartzite

Ordovician
- Θg — Gordon Limestone Invariably weathered and/or altered
- Θm? — Moina ? Sandstone

Cambrian
- Єdh — Upper Dundas Group ≡ Huskisson Formation Upper Cambrian
- Єc — Crimson Creek Formation Middle Cambrian

Pre-Cambrian
- pЄo — Oonah Quartzite and Schist

IGNEOUS ROCKS
- Tb — Tertiary Basalt
- Dm: Dg-1 — Coarse to very coarse Adamellite
- Dg-2 — Quartz Porphyry and fine grained Porphyritic Granite with wide spread Quartz Tourmaline Alteration
- Dgm — Microgranite; Microgranite Dykes
- Tourmalinized Granite
- D?a — Devonian ? Acid Intrusives
- Єs — Upper Cambrian Serpentinites, and Mafic-ultra-mafic complexes
- Єg — Cambrian Basic or Gabbroic Rocks

METASOMATIC ROCKS
- Magnetite - Sulphide? Bearing Calc.- Silicate Skarn.

SYMBOLS
- Dip and Strike of Bedding (Facing known)
- Dip and Strike of Bedding (Facing unknown)
- Dip and Strike of Composition Banding
- Dip and Strike of Cleavage, undifferentiated
- Axial Plane of small anticline
- Anticlinal, Synclinal Axis
- Dip and Strike of Jointing
- Dip and Strike of Foliation
- Observed outcrop
- Fossil locality
- Interpreted Boundary
- Fault, approximate position
- Compositional layering in Ultra-mafic
- Cleavage: parting: shear
- Dyke

RENISON LIMITED 84-2281 vol 2	DRAWN	T.C.
E.L. 17/77 - WILSON RIVER AREA	TRACED	T.G.D.S.
LAUREL CREEK WEST GRID	DATE	April, 1983
LINE L.C.W. 8, 10, 12, 14N. 1407	SCALE	1 : 1000
SECTION LOOKING NORTH	REVISIONS: Sept. 84	
SCALE. 1:1000 METRES	FIG. 22	

I.P.

- CHARGEABILITY
- RESISTIVITY

MAGNETICS

- 5000 γ SCALE
- 1000 γ SCALE

BEDROCK GEOCHEMISTRY

● Auger Sample —— Limit of auger penetration.

5 cm

GEOCHEMISTRY

Sn, Cu, Pb, Zn, As, WO_3

SEDIMENTARY ROCKS

Quaternary
- Qra — Recent Alluvium
- Tg — Tertiary Gravels

Devonian
- Db — Bell Shale
- Df — Florence Quartzite

Silurian
- Undiff. Amber Shale — Sa — Sas — Siliceous Sandstone member; Sal — Limestone member
- Sc — Crotty Quartzite. Hornfelsed and altered calc-silicate lenses. Some magnetite bearing skarns developed.

Ordovician
- Og — Gordon Limestone Invariably weathered and/or altered.
- Om? — Moina ? Sandstone

Cambrian
- Cdh — Upper Dundas Group ≡ Huskisson Formation Upper Cambrian
- Cc — Crimson Creek Formation Middle Cambrian

Pre-Cambrian
- pCo — Oonah Quartzite and Schist

IGNEOUS ROCKS

- Tb — Tertiary Basalt
- Dm — Dg-1 — Coarse to very coarse Adamellite
- Dg-2 — Quartz Porphyry and fine grained Porphyritic Granite with wide spread Quartz Tourmaline Alteration
- Dgm — Microgranite; Microgranite Dykes
- Tourmalinized Granite
- D?a — Devonian ? Acid Intrusives
- Cs — Upper Cambrian Serpentinites, and Mafic-ultra-mafic complexes
- Cg — Cambrian Basic or Gabbroic Rocks

METASOMATIC ROCKS

- Magnetite - Sulphide ? Bearing Calc. Silicate Skarn

SYMBOLS

- Dip and Strike of Bedding (Facing known)
- Dip and Strike of Bedding (Facing unknown)
- Dip and Strike of Composition Banding
- Dip and Strike of Cleavage, undifferentiated
- Axial Plane of small anticline
- Anticlinal, Synclinal Axis
- Dip and Strike of Jointing
- Dip and Strike of Foliation
- Observed outcrop
- Fossil locality
- Interpreted Boundary
- Fault, approximate position
- Compositional layering in Ultra-mafic
- Cleavage parting; shear
- Dyke

RENISON LIMITED 84-2281 vol 2

E.L. 17/77 - WILSON RIVER AREA
LAUREL CREEK WEST GRID
LINES L.C.W. 250,400E. 1408
SECTION LOOKING WEST
SCALE. 1:1000 METRES
20 0 20 40 60

DRAWN	T.C.
TRACED	T.G.D.S.
DATE	April, 1983
SCALE	1:1000
REVISIONS: Sep., 84	

FIG. 23

I.P.
CHARGEABILITY
RESISTIVITY

MAGNETICS
5000 γ SCALE
1000 γ SCALE

BEDROCK GEOCHEMISTRY
Sn
Cu
Pb
Zn
As
WO_3

BEDROCK GEOCHEMISTRY
Auger Sample
Limit of auger penetration.

5 cm

SEDIMENTARY ROCKS

Quaternary
Qra Recent Alluvium
Tg Tertiary Gravels

Devonian
Db Bell Shale
Df Florence Quartzite

Silurian
Undiff. Amber Shale Sa
Sas Siliceous Sandstone member
Sal Limestone member
Sc Crotty Quartzite

Ordovician
Og Gordon Limestone Invariably weathered and/or altered.
Om? Moina ? Sandstone

Cambrian
€dh Upper Dundas Group ≡ Huskisson Formation Upper Cambrian
€c Crimson Creek Formation Middle Cambrian

Pre-Cambrian
pCo Oonah Quartzite and Schist

IGNEOUS ROCKS

Tb Tertiary Basalt
Dm
Dg-I Coarse to very coarse Adamellite
Dg-2 Quartz Porphyry and fine grained Porphyritic Granite with wide spread Quartz Tourmaline Alteration
Dgm Microgranite; Microgranite Dykes
Tourmalinized Granite
D?a Devonian ? Acid Intrusives

€s Upper Cambrian Serpentinites, and Mafic-ultra-mafic complexes
€g Cambrian Basic or Gabbroic Rocks

METASOMATIC ROCKS
Magnetite-Sulphide? Bearing Calc.-Silicate Skarn

SYMBOLS
Dip and Strike of Bedding (Facing known)
Dip and Strike of Bedding (Facing unknown)
Dip and Strike of Composition Banding
Dip and Strike of Cleavage, undifferentiated
Axial Plane of small anticline
Anticlinal, Synclinal Axis
Dip and Strike of Jointing
Dip and Strike of Foliation
Observed outcrop
Fossil locality
Interpreted Boundary
Fault, approximate position
Compositional layering in Ultra-mafic
Cleavage parting: shear
Dyke

SEDIMENTARY ROCKS

Quaternary
- Qra — Recent Alluvium
- Tg — Tertiary Gravels

Devonian
- Db — Bell Shale
- Df — Florence Quartzite

Silurian
- Undiff. Amber Shale — Sa: Sas — Siliceous Sandstone member; Sal — Limestone member
- Sc — Crotty Quartzite. Hornfelsed & altered calc.-silicate lenses. Some magnetite bearing Skarns developed.

Ordovician
- Og — Gordon Limestone
- Om? — Moina ? Sandstone

Cambrian
- Upper Cambrian: €dh — Dundas Group (undiff.)
- Middle Cambrian (Crimson Ck. Formation, €c):
  - €m — Tuffaceous Sandstones
  - €ch — Chert
  - €st — Tuffaceous Siltstones/Shales
  - €k — Skarn
  - €h — Hornfels
  - €t — Tuff

Pre-Cambrian
- p€o — Oonah Quartzite and schist

IGNEOUS ROCKS

- Tb — Tertiary Basalt
- Dm: Dg-1 — Coarse to very coarse Adamellite; Dg-2 — Quartz Porphyry and fine grained Porphyritic Granite with wide spread Quartz Tourmaline Alteration; Dgm — Microgranite: Microgranite Dykes
- Dfa — Devonian ? Acid Intrusives
- €s — Upper Cambrian Serpentinites and Mafic-ultra-mafic complexes
- €g — Cambrian Basic or Gabbroic Rocks

METASOMATIC ROCKS

- Magnetite-sulphide? bearing calc.-silicate Skarn

SYMBOLS

- Dip and Strike of Bedding (Facing known)
- Dip and Strike of Bedding (Facing unknown)
- Dip and Strike of Composition Banding
- Dip and Strike of Cleavage undifferentiated
- Axial Plane of small anticline
- Anticlinal, Synclinal Axis
- Dip and Strike of Jointing
- Dip and Strike of Foliation
- Observed outcrop
- Fossil locality
- Interpreted Boundary
- Fault, approximate position
- Compositional layering in Ultra-mafic
- Cleavage, parting, shear
- Dyke

DATA SOURCE

Data presented is a compilation of:
- Renison Mapping
- A.V. Brown (1980's) - Mines Dept.
- Photogeological interpretation by P.R. Boshier
- L. Martin (1982)
- A. Cartwright (1983)

WR-3 — DRILL HOLE

CORINNA B4-3	CORINNA B4-4
CORINNA D2-1	CORINNA D2-2

5 cm

281101

RENISON LIMITED

84-2281 Vol 2.

LAUREL CREEK GRIDS
INTERPRETATIVE GEOLOGY
&
DRILL HOLE LOCATIONS

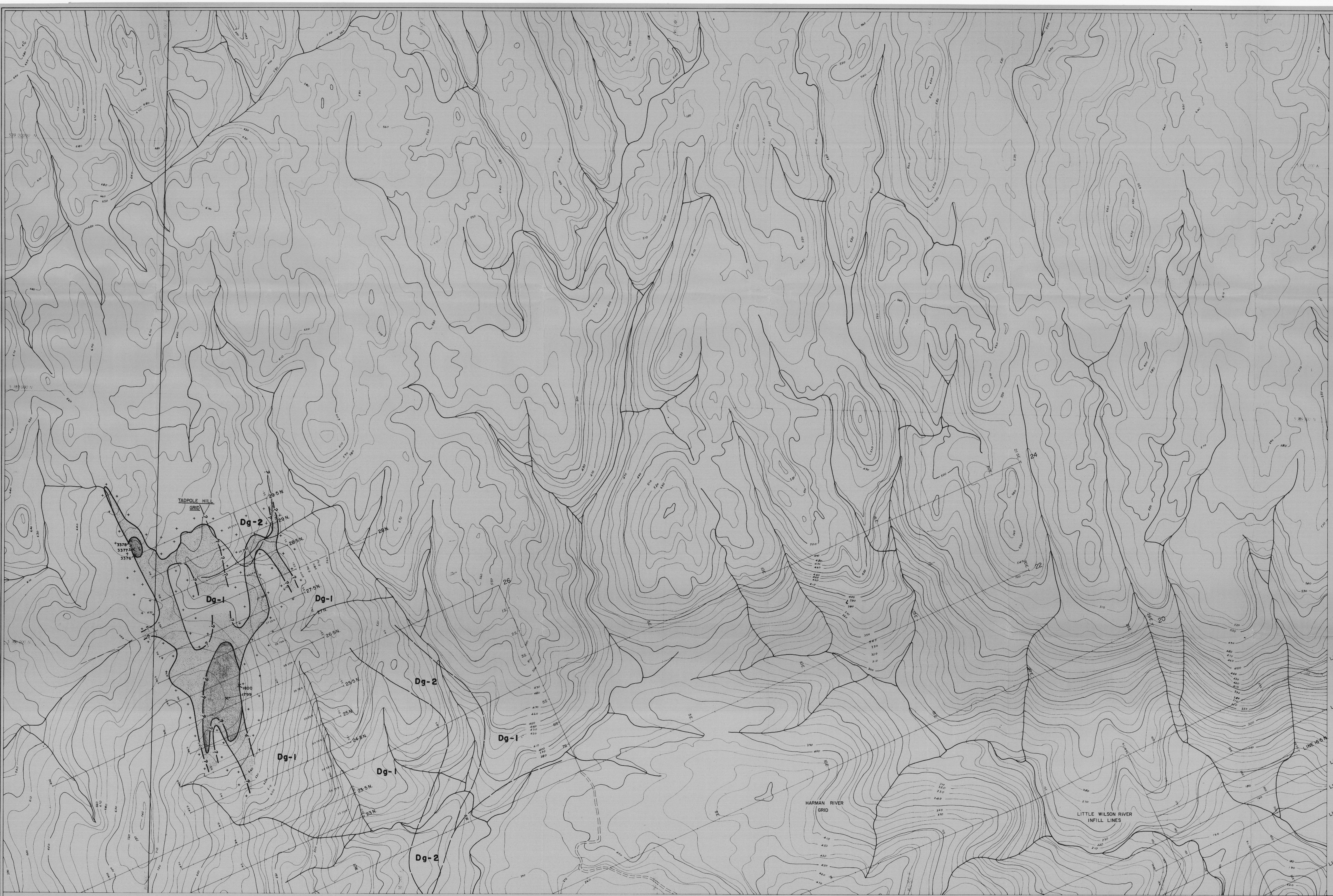
1409

SCALE · 1:5000 METRES

100 0 100 200 300

DRAWN	L.M./A.C.
TRACED	T.G.D.S./S.F.
DATE	July, 82 July, 83
SCALE	1:5000
REVISIONS	Oct., 84

FIG. 24



GEOLOGY

Dg-1	Coarse to very coarse Adamellite
Dg-2	Quartz Porphyry and fine grained Porphyritic Granite

1800 × Sample No. & Location

ALTERATION

Unaltered Granite

Argillised Granite

Tourmalinised Granite

5 cm

281102

RENISON LIMITED

CORINNA D1/2

84-2281 vol 2.

TADPOLE HILL GRID
GEOLOGY & ALTERATION

GEOLOGIST	: A.CARTWRIGHT
DRAUGHTSMAN	: S.FREER
DATE	: Sept., 1984
REVISIONS	1410

SCALE 1:5000 METRES

100 0 100 200

DRAWING No 25

Meredith Granite
E.L. 17/77
E.L. 2/63
ALFRED RIVER AREA
PROPOSED GRIDDING
SEDIMENTARY ROCKS
Quarternary
Qra Recent Alluvium
Tertiary
Tg Tertiary Gravels
Devonian
Db Bell Shale
Df Florence Quartzite
Silurian
Undiff. Amber Shale Sa
Sas Siliceous Sandstone member.
Sal Limestone member.
Sc Crotty Quartzite
Ordovician
Θg Gordon Limestone
Θm ? Moina ? Sandstone
Cambrian
Upper Dundas Group ≡ Huskisson Formation Upper Cambrian
Єdh
Єd Dundas Group (undiff.)
Єdc Conglomerates
Єds Black Fossiliferous Pyritic Shale
Middle Cambrian
Єc Crimson Creek Formation
Pre-Cambrian
pЄo Oonah Quartzite and Schist.
IGNEOUS ROCKS
Tb Tertiary Basalt
Dm Devonian Meredith Granite
D?a Devonian ? Acid Intrusives
Єs Upper Cambrian Serpentinites, and Mafic-ultra-mafic complexes.
Єg Cambrian Basic or Gabbroic Rocks.
SYMBOLS
Dip and Strike of Bedding (Facing known)
Dip and Strike of Bedding (Facing unknown)
Dip and Strike of Composition Banding.
Dip and Strike of Cleavage, undifferentiated.
Axial Plane of small anticline.
Anticlinal, Synclinal Axis.
Observed outcrop.
Fossil locality.
Interpreted Boundary.
Fault, approximate position.
Compositional layering in Ultra-mafic.
Cleavage; parting; shear.
DATA SOURCE:
Data presented is a compilation of:
- Renison Mapping
- A.V. Brown (1980's) - Mines Department
- Photogeological interpretation by P.R. Boshier.
Merton Hill Grid Lines
Merton Hill proposed Grid Lines
Proposed Gridding
CORINNA D/3
ZEEHAN 8/1
5 cm


E.L. 17/77
E.L. 2/63
ALFRED RIVER AREA
PROPOSED GRIDDING
281103 RENISON LIMITED
ALFRED RIVER AREA
INTERPRETATIVE GEOLOGY &
PROPOSED WORK 1984-85
SCALE. 1:10,000 METRES.
DRAWN L.A.M./P.K.
TRACED T.G.D.S./S.F.
DATE March, 1982 March, 1984
SCALE 1:10,000
DRAWING No. 26
84-2281 vol 2.
1411