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RENISON LIMITED

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FEDERATION AREA

E.L. 11/76

ANNUAL REPORT 1978-79

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Senior Exploration Geologist,
July, 1979.

Copies to: Renison (2)
Tas. Mines Dept (1)

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SUMMARY

One diamond drill hole was completed at Sweeney's with no significant result and six diamond drill holes were completed in the Federation Plateau area. Of these six holes, four intersected alteration/mineralisation and/or geological situations considered to be significant and worthy of follow up.

Elsewhere on the licence area preliminary investigations have been undertaken of structures and zones of interest outlined by the photogeological study and several will require more detailed examination.

Other work to be undertaken in 1979-80 will involve extending the Federation Grid, West and South and undertaking further diamond drilling on anomalous zones indicated by the drilling in 1978-79, as well as testing new targets.

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1. INTRODUCTION :

E.L. 11/76 was originally pegged in April 1976. Significant mineralisation was located at the Sweeney Mine in 1977 and this led to the realisation that the whole of the Heemskirk Granite has economic potential: Consequently the E.L. was increased from 26 sq km to 88 sq km in July 1977, to cover all of the available granite outcrop (Fig. 1). In addition, it was realised that several old workings in the Federation Plateau area, adjacent to Lake Cumberland had similarities to Sweeney's and work in 1977-78 was directed towards the delineation of suitable drilling targets in this area. During this last year, 1978 - 79, work has been mainly involved with testing, by diamond drilling, of some of the targets outlined in 1977 - 78: One further hole was also drilled at Sweeney's and reconnaissance work continued over the rest of the E.L.

Expenditure during 1978 - 79 has amounted to \$90,711 and total expenditure to date is \$292,016.

Work to be undertaken during 1979 - 80 should involve

- 1) Further diamond drilling in the Federation Plateau area.
- 2) Extension of the Federation Grid West and South.
- 3) More detailed evaluation of other areas on the Heemskirk Granite.

This work is estimated to cost \$108,218

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2. WORK COMPLETED 1978 - 79:

2.1 Sweeney Mine Area

One diamond drill hole, Swy 18 of 249m was drilled during the year. This was drilled from the access road on a bearing of 345° mag., with a dip of - 50° (Fig. 2a) This was designed to test the possibility of the lower Sweeney mineralisation being a steeply dipping tabular body within a proposed N.E. - S.W. striking fault-plane. Only coarse-grained 'red' granite with some minor fine-grained 'white' granite 'dykes', all variously altered, were intersected. Plotting of Swy 18 in relation to the other holes in the immediate vicinity (Figs 2) together with the results of the down-hole geophysics (Scintrex Rep. Tas. 052B) suggest that in fact the 'lode' plunges in a South Easterly direction beneath Swy 18; d.d.h. Swy 17 also appears to pass over the lode, while d.d.h. Swy 16 appears to pass beneath it (Fig. 2b)

The shape and therefore the tonnage potential of the Sweeney mineralisation is still not known. It has been suggested (Wells 1978) that the mineralisation occurs at the intersection of two steeply plunging fault planes and roughly contouring the body, on very limited data, suggests a contorted pipe like shape.

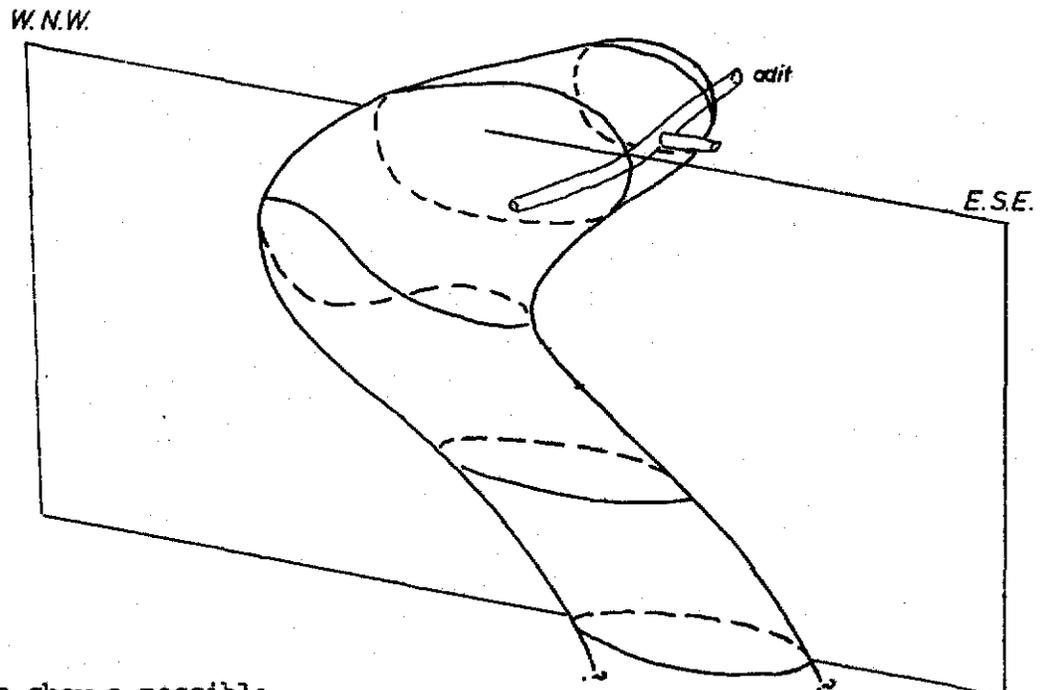


Diagram to show a possible interpretation of the shape of the Sweeney Mineralisation

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However, some recent investigations (Plath, pers-comm) have identified some breccias and the unusual shape of the Sweeney mineralisation may be related to the development of a collapse breccia; the flat tabular shape of the upper part of the lode being the top of the collapse zone, while the steeply plunging part is related to one of the faulted margins.

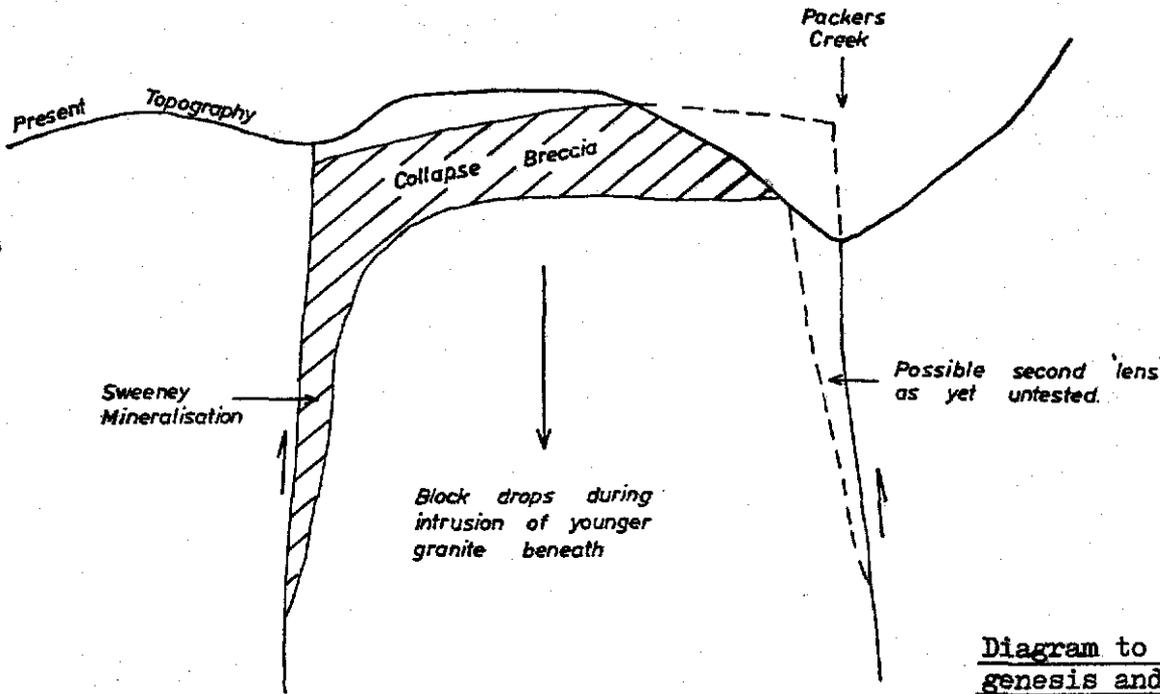


Diagram to show a possible genesis and shape of the Sweeney Mineralisation

Before the full potential of the Sweeney mineralisation can be evaluated, some idea of the true shape and attitude of the deposit is needed to guide any diamond drilling (the location of which is severely constrained by the topography). In April 1979 a brief investigation was undertaken (Wells 1979) into the possibility of a small adit (1.8m x 2.1m) approximately 300m long, being driven from the West side of the main hill, on the access road, to where d.d.h. Swy 11 intersects the lode, at R.L. 250m; then to cross cut through and drive along the lode. This would not only outline the size and attitude of the deposit to guide diamond drilling, but also give a bulk sample, of this complex 'ore', for metallurgical testwork. The overall cost of such an adit would be in the vicinity of \$100,000 and while not an unreasonable cost for an adit of this size and length, it

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would have consumed the entire 1979-80 budget for E.L. 11/76. This was not felt to be justified at the present time and further consideration of the project has been postponed.

2.2 Federation Plateau Area

2.2.1. Geophysics:

In the Annual Report 1977-78 it was recommended that the ground proton magnetic survey, of the Federation grid, commenced in that year be completed. This was undertaken in December 1978 and the results confirmed the trend of increased activity towards the South and the major fault striking E. - W. through the Sweeney and Montague mine areas (Fig. 3)

2.2.2. Diamond Drilling:

Six diamond drill holes, totalling 986m were drilled between January and April 1979 to test various targets in the Federation Plateau area. The targets consisted essentially of I.P. anomalies coincident with known workings/mineralisation and/or in favourable geological positions (Fig. 4). To minimise the environmental impact of the drilling operations, the entire programme was carried out utilising helicopter support.

D.d.h. Fed. 1, 197.5m long, was drilled to test the Black Face Lode, Central Federation and adjacent I.P. anomaly I. An extensive zone of intense alteration, including complete tourmalinisation, was encountered, equatable with the Black Face Lode (Fig. 5). However, generally only low tin values were encountered, the best intersection being 2m (67.5m - 69.5m) x 0.65% Sn.

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D.d.h. Fed 2, 137.8m long, was drilled in the West Federation area, Southwards along line 4W from 420N, to test beneath Fowlers & Dunn's open-cut and adjacent adits, coincident with a weak but confused I.P. anomaly (N): Cassiterite associated with coarse, disseminated pyrite had been exploited here previously. The hole collared in medium-grained 'red' granite and reached 97.7m before passing into the younger, underlying, fine-grained, 'white' granite (Fig. 5) One small quartz, topaz greisen vein was intersected within the 'red' granite but contained no tin, similarly, alteration developed immediately below the 'red' granite contact contained no tin.

D.d.h. Fed. 3, 131.5m long was a vertical hole drilled at 4E, 580S into the axis of I.P. anomaly Q, which it was hoped would be related to a sulphide bearing greisen in the "roof zone" of the underlying 'white' granite. Only 'red' granite was intersected with occasional 'white' microgranite dykes and numerous, narrow micaceous greisen veins carrying minor sulphides. The I.P. anomaly appears to be related to these veins; the main body of younger 'white' granite is obviously deeper than originally hoped.

D.d.h Fed. 4, 131.0m long was drilled Northwards from 2E, 690S to test I.P. anomaly H, coincident with a quartz, topaz greisen vein (Fig 5). The I.P. anomaly appears to be related to the minor sulphides associated with the greisen vein: The majority of the hole encountered only coarse-grained 'red' granite with minor 'white' microgranite dykes.

D.d.h. Fed 5, 201.5m long was drilled Northwards from 6E, 120S to test a micaceous greisen zone carrying pyrite, hematite and cassiterite outcropping in Waxman and Weston's Workings, coincident with a magnetic and I.P. anomaly (G). Alteration was encountered throughout the hole and after approximately 90m the core was completely argillised, consisting of grey/green and brown clays with chlorite, tourmaline and lesser amounts of pyrite, hematite and magnetite (Fig. 5). The hole was stopped in alteration/mineralisation due to drilling difficulties. Patchy, but generally low grade tin mineralisation occurs throughout the hole, the best intersections being 4m (103m - 107m) x 0.56% Sn and 3m (181m - 184m) x 0.48% Sn.

D.d.h. Fed. 6, 186.7m long was drilled North-Westwards to test the mineralisation outcropping in Coleman's Workings and an adjacent I.P. anomaly (O). Similar alteration/mineralisation to that in the workings was intersected in the early part of the hole, but no mineralisation was encountered beneath the workings as expected. The mineralisation intersected consisted of 12m (20m - 32m) x 0.19% Sn including 4m (20m - 24m) x 0.43% Sn.

2.2.3. Comments:

Of the six drill holes, Fed. 1 and Fed. 5 are considered to merit immediate follow up, with Fed. 2 and Fed. 6 have indicated situations also requiring further work, while Fed. 3 and Fed. 4 are not considered worthy of follow up at this stage.

The low level of tin in the widespread and intensive alteration intersected in Fed. 1 was disappointing. Plotting of the hole on the detailed plans now available (Fig 5) shows that the hole intersected the Black Face Lode, South of the open cut. Discussions with old prospectors in the area

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suggest that tin was only found in one part of the Black Face Lode, this presumably is where the open cut and underlying stopes were developed. This also appears to be where the lode is coincident with, rather than just adjacent to the I.P. anomaly and a second diamond drill hole is justified to test the Northern end of the lode.

Although no petrographic descriptions are yet available, the extensive alteration in Fed 5 appears to be very similar to that at Sweeneys, although fewer sulphides and less tin were encountered, but these may occur with depth. Because the hole was stopped due to drilling difficulties I.P. anomaly F was not tested although the alteration/mineralisation in the bottom of the hole may be related to it. The rock intersected beneath Waxman and Westons workings is very soft and the anomalous zone (I.P. anomalies G and F and a magnetic anomaly) coincides with a large depression approximately 150m long by 100m wide, which strikes Eastwards into the N.W. corner of Lake Cumberland; a small 'ironstone' also outcrops within this depression. The extensive nature of this alteration, similar to Sweeneys, is considered to be a prime target for further drilling.

D.d.h. Fed 2 although intersecting no significant mineralisation did locate alteration in the classic position (similar to Blue Tier and Erzgebirge, E. Europe) immediately beneath the older granite and economic grade Sn mineralisation could occur elsewhere beneath this contact. Fed 2 did not test the Cross Lode, including the high grade (19% Sn) 'pipe' of Tributors Workings, which the majority of the West Federation Workings were developed to exploit; and a second hole is thought to be justified, to test the Cross Lode at the R.L. of the older 'red'/younger 'white' granite contact.

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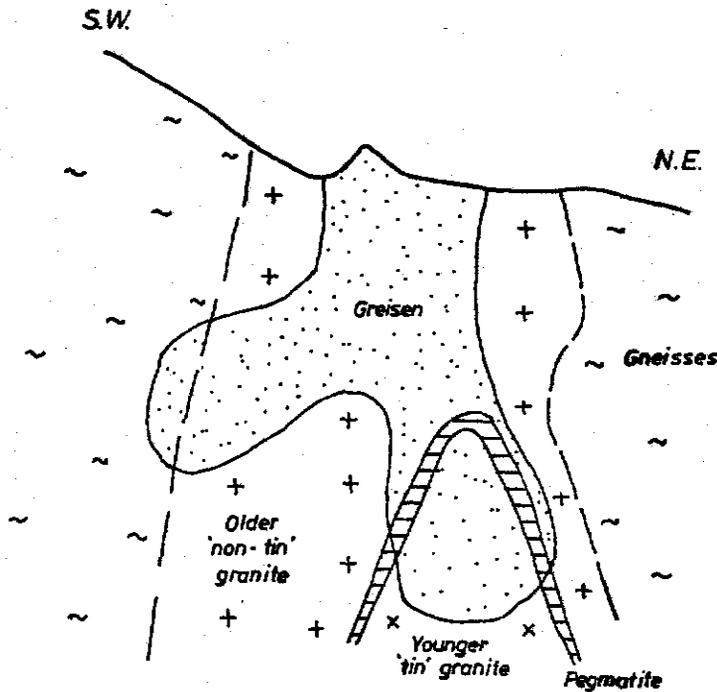
The I.P. anomalies tested by d.d.h.s Fed 3 and 4 appear to be due to narrow sulphide bearing greisen veins in the older 'red' granite. The contact between the older 'red' granite and younger 'white' granite is obviously much deeper than originally hoped, although the narrow greisen veins intersected could be indicative of a larger greisen zone along this contact. The area is considered to have no economic interest at this time.

The lack of a mineralised intersection beneath Coleman's workings was unexpected. Discussions with Mr Coleman had suggested that the lode dipped S.E., therefore Fed 6 was drilled towards the N.W. The lode must either dip towards the N.W. or is flat lying and is the zone intersected in the early part of the hole; and may correspond to I.P. anomalies O and I, which extend Eastwards from the workings. The good tin mineralisation intersected in the workings makes the lode worthy of further investigation, initially by one or two short diamond drill holes to determine its strike and dip.

Apart from the significance of the individual holes the drilling has highlighted some more general factors. The lineament which strikes W.N.W. - E.S.E. through the Southern part of Lake Cumberland appears to separate the area into two zones. North of the lineament d.d.h.s Fed 1,2 and 5 all intersected f.g. 'white' granite which either outcrops or is buried beneath a relatively thin layer of older 'red' granite. To the South of the lineament d.d.h.s Fed 3,4 and 6 did not reach the f.g. 'white' granite which must be beneath a thick layer of older 'red' granite. This infers that the area to the North of the lineament is uplifted relative to the South.

Alteration/mineralisation intersected in both the Federation and Sweeney holes affects both the older 'red' and younger 'white' granite: It is

not confined to the roof zone of the 'white' granite. This situation is common in the Erzebirge tin province of Eastern Europe, e.g. the Altenberg and Sadisdorf deposits and areas of older 'red' granite adjacent to major lineaments, around and/or above cupolas in the younger 'white' granite could contain mineralisation.



Vertical Schematic
Section through the
Sadisdorf Tin Deposit
(from Schust 1976)

2.3 Other Work

The photogeological study of the Heemskirk Granite completed in May 1978 (Loxton, Hunting & Assoc. Rep G.A. 39/77 and 11/78) identified several 'pipe-like' and other structures worthy of further investigation. Preliminary examination of most of them suggests that the majority are circular outcrops of granite, differing from the surrounding granite, rather than actual pipes. At the moment only Long's Iron Blow appears to be a true pipe, consisting of a tourmalinised breccia which outcrops as a prominent tor. Long's Iron Blow will require more detailed work to fully evaluate it, while some of the others will require more than the preliminary examination undertaken thus far, to decide whether or not more detailed work is justified upon them.

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3. LAND TENURE:

Within the present E.L. of 88 sq kms other parties hold four small Mine Leases totalling 50.6 ha. and two Prospecting Claims totalling 50 ha. (Fig. 6).

The two prospecting claims, which are in effect small exploration licences, are held over the Peripatetic Mine at North Heemskirk. The preliminary work, which has been undertaken in this area, suggests that the prospect does justify further work on it. If work, to be undertaken during 1979-80, confirms this, an option or other agreement may have to be entered into with the present holders.

In the South Heemskirk area Option Agreements are currently in force over two of the mine leases: 90M/47 of 2 ha. held by Carden, Warren and Burgess and 20M/41 of 16.25 ha held by E.W. Coleman. 90M/47 covers the West Federation Workings: One d.d.h., Fed 2 was drilled here this year and the area is considered worthy of further work (See Section 2.2.3) and the option should be renewed in November 1979. Similarly one d.d.h., Fed 6 was drilled on 20M/41, which covers Coleman's Workings and again the area is thought to justify further investigations and the option should be renewed on the due date, in September 1979.

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4. RECOMMENDATIONS 1979-80:4.1 South Heemskirk Area

Geophysical work previously undertaken on the Federation Grid indicated higher chargeabilities and increased magnetic activity towards the South. This Southern end of the grid is approaching a major lineament which runs E. - W. from the Sweeney Mine area to the Montague Mine. The increased geophysical activity may be related to alteration/mineralisation similar to Sweeney's, along this lineament. It is recommended that the Federation Grid be extended Southwards and Westwards to cover the lineament and the Wakefield and Montague Mines (Fig 7). This will involve extending the 12 Westernmost lines 750m Southwards and adding 7 shorter lines 600metres long to the Western end of the Grid. Total line pegging will be approximately 16.5km. This grid can then be surveyed with I.P. and ground magnetics, utilising contractors, in a similar manner to the survey of the Federation Grid. Hopefully this in conjunction with geological mapping will delineate targets which can be tested in either late 1979-80 or 1980-81.

Diamond drilling in 1978-79 outlined several zones that require further testing (See Section 2.2.3) and other anomalous zones are as yet untested.

A second hole is needed to test the Northern end of the Black Face Lode. The intersection in Fed. 1. suggests that the lode dips towards the S.E. and a hole is recommended, drilling from the same site as Fed. 1, on a bearing of 320° mag., with a dip of -50° , 200 - 250m long; to intersect the lode approximately 70m below the floor of the open cut.

I.P. anomaly M occurs North of the West Federation Workings. The area is essentially medium-grained 'red' granite, but there are numerous small 'windows' of fine-grained 'white' granite which are usually greisenised.

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The 'red' granite is thought to constitute only a thin cover over a, possibly sulphide bearing, greisen in the roof of the underlying 'white' granite. It is recommended that this anomaly be tested on line 3W.

The Cross Lode at West Federation should be tested at the R.L. of the 'red' granite/'white' granite contact. A 150m hole collared at 5359692N 349915E (A.M.G.) on a bearing of 317° mag with a dip of -60° is recommended.

At Coleman's Workings a short (120m) hole at -70° , on a bearing of 100° mag., from 5359084N 349660E (A.M.G.) is recommended to test the possibility that the 'lode' dips N.W. If no intersection is encountered, it would suggest that the lode is essentially flat and was intersected in d.d.h. Fed 6 and I.P. anomalies O and L could be related to it. This could be tested subsequently by one or more short vertical holes into the I.P. anomalies immediately S.E. of Coleman's workings.

It is recommended that the above four holes be undertaken utilising helicopter support. Road building to provide four-wheel drive vehicle access, particularly to the first three holes, would be expensive and leave a highly visible 'scar'. The holes recommended to test the Black Face, Cross Lode and Coleman's have been located at sites suitable for helicopter operations; the hole to test anomaly M will have to be designed from a suitable location. Two further holes are recommended, one to further test the zone at Waxman and Weston's and the second to test the Eastern Workings. These could also be undertaken using a helicopter, but it is recommended that the present road be extended the relatively short distance around the Northern end of the lake. The present road will have to be repaired to facilitate the drilling programme and the alteration/mineralisation intersected at Waxman and Weston's is considered to be significant enough to justify ground access: The area is already crossed by old tracks and is sufficiently near to the end of the present road that road building would have little effect on the overall environment.

At Waxman and Weston's, the intersection in d.d.h. Fed 5 and the location of the I.P. anomaly (G) suggest that the mineralisation dips South (Fig 5). A higher percentage of sulphides and tin could occur at depth and a 250 - 300m hole drilled Northwards from 6E 200S with a dip of -50° would test the zone approximately 60m below the intersection in Fed. 5. However, this hole would still not test I.P. anomaly F and consideration should be given into drilling this or another hole Southwards along the line from approximately 6E 100N.

The Eastern Workings consist of a zone of massive green tourmaline, which is thought to be preferentially associated with cassiterite and the zone has a related I.P. anomaly (E). This should be tested by a diamond drill hole on line 7E; probably drilling Northwards from the site of the present walking track.

No recommendations have been made regarding further work at Sweeney's. However, the mineralisation is still considered to be of major significance and more work is required. A detailed study is presently being undertaken on the alteration/mineralisation (Plath, in prep.) and recommendations for further work should await the final results of this study. Further investigations will then have to be undertaken; these could consist of either an adit preferably (See Section 2.1) or possibly a diamond drill hole collared on the access road 8m North of line 130S (5m from survey point B.B. 11), bearing 288° mag., dip -61° , length 300m (target approximately 230m). This should intersect the mineralisation approximately 25m from and at right angles to the intersection in Swy 15, at about R.L. 80m. This would help to determine the shape and attitude of the body and guide further work.

4.2 Other Areas

Preliminary work undertaken to date suggests that the Peripatetic and Long's Iron Blow Prospects require detailed geological mapping and sampling. Other "pipe-like" structures identified by the photogeological survey will also need to be mapped and any areas of "red" granite,

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particularly if near "white" granite outcrops, having numerous greisen veins (white dykes) will also require careful evaluation. Any old workings as yet unexamined will have to be checked, e.g. Healey and McIvors Mine, the pyrite/cassiterite lode North of Packers Creek etc (Fig. 7)

If significant alteration/mineralisation is confirmed in any of these areas, they will require gridding and surveying in detail, including geophysics, in 1980-81.

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APPENDIX 1

EXPENDITURE BREAKDOWNS

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PROPOSED BUDGET 1979-80

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PROPOSED BUDGET - 1979/80

<u>ITEM</u>	<u>EXPENDITURE \$</u>	<u>% OF TOTAL EXPENDITURE</u>
Salaries (including loading)	22,059	20
Consumables	5,458	5
Renison Services (Surveying, Assaying etc)	11,937	11
Diamond Drilling	47,250	44
Outside Services (line pegging, geophysics, helicopter etc)	12,514	12
Road Construction	9,000	8
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TOTAL	108,218	100
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TOTAL EXPENDITURE 1978/79

<u>ITEM</u>	<u>\$ EXPENDITURE</u>	<u>% OF TOTAL EXPENDITURE</u>
Salaries (including loading)	9,307	10
Consumables	5,689	6
Renison Services (Surveying, Assaying, Vehicle Maintenance)	2,319	3
Diamond Drilling	57,172	63
Road Construction	3,301	4
Consultants (C.M.S. Limited)	574	1
Outside Services (Contract Geophysics, Helicopter etc)	12,350	14
Rounding	1	
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TOTAL	90,711	100
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TOTAL EXPENDITURE TO DATE (JUNE '79)

<u>ITEM</u>	<u>EXPENDITURE \$</u>	<u>% OF TOTAL EXPENDITURE</u>
Salaries	30,390	10
Consumables	13,495	5
Renison Services (Surveying, Assaying etc)	4,510	1
Diamond Drilling	162,467	56
Road Construction	17,216	6
Consultants	2,074	1
Travel & Accommodation	511	
Outside Services (Track-cutting, Geophysics, Aerial Photography, Photogrammetry, Helicopter)	61,352	21
Rounding	1	
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TOTAL	292,016	100
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APPENDIX 2

DIAMOND DRILL LOGS

DIAMOND DRILL RECORD

 HOLE NUMBER : SWY 18
 LOGGED BY : A. Ross

INTERVAL (m)		RECOVERY		DESCRIPTION	FORM	% Sn										
FROM	TO	m	%			FROM	TO	TOTAL	ACID SOL.	% Cu.	% As.	% S.	% Pb.	% Zn.	% Bi.	p/t Ag
0	2	0		Tricone. No Core.												
2.0	2.1	0.10	100	White to pale yellow, with slight pink tinge; mixed aplite and minor porphyritic granite, pegmatite. Grades into												
2.1	13.9	11.8	100	COARSE GRAINED GRANITE, PINK TO GREY COLOUR. Generally equigranular. Composed of grey quartz, pink K-feldspar and a white feldspar (plag.) which displays variable, weak alteration to yellow and/or pale green clays.												
2.1	7.2			Yellow, pale green argillisation common. Overall, the granite is competent, and with few joints. Rare pink feldspars show rims of yellow kaolin? alteration. Rare patch of black tourmaline (8mm diameter) at 5.9m.												
7.2	8.2			More altered, i.e. weathered granite. Orange limonite? alteration common on joints and on grain boundaries. Minute limonite veinlets common, at 60° to CA from 7.8 to 8.0m.												
8.2	13.5			Pink, grey granite with minor pale green alteration of feldspar. Biotite distribution is irregular, in rare clusters.												
13.5	13.9			Increase in orange-yellow kaolin alteration. Weathered.												
13.9	19.4	4.5	81.8	COMPLEX ZONE OF GREY TO PINK MICROGRANITE, PEGMATITE SEGREGATIONS AND RARE PALE COARSE GRAINED GRANITE. Weathered in patches.												
13.9	14.4			Dark grey with pink patches; microgranite joints (15° to CA) with orange brown weathering, common to 14.2m. Weak graphic texture? Upper contact gradational.												
14.4	14.5			Grades into white, graphic textured, pegmatite segregation.												
14.5	15.0			Grey-white with pinkish patches. Microgranite, biotite granite and irregular phases of coarse grained granite												
15.0	15.45			Grades into grey coarse grained granite with common yellowish alteration. Orange brown limonite coating on joints.												
15.45	15.54			Pegmatite phase.												
15.54	15.8			Mixed microgranite and coarse grained granite. Yellowish grey pervasive kaolin alteration. Rare patch, black tourmaline. Pale green mica. No significant biotite.												
15.8	16.5	0.2		Broken zone. Weathered yellow microgranite and brown fragments.												
16.5	17.2			Broken core. Mixture of white coarse to medium grained granite, microgranite. Both without significant biotite and pegmatitic phases. Rare pink feldspar patches. Orange-brown weathering. Trace very fine pyrite at 16.75m												
17.2	17.4			Grades into pink-grey to medium grained biotite granite with yellowish kaolin alterations												

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DIAMOND DRILL RECORD

HOLE NUMBER : SWT 18

LOGGED BY : A. Ross

INTERVAL (m)		RECOVERY		DESCRIPTION	FORM.	% Sn.										
FROM	TO	m	%			FROM	TO	TOTAL	ACID SOL.	% Cu.	% As.	% S.	% Pb.	% Zn.	% Bi.	g/t Ag
17.6	17.75			Yellowish, weathered microgranite with sparse biotite.												
17.75	18.2			Grades into orange, weathered red granite.												
18.2	18.4			Pale Pink, yellowish microgranite.												
18.4	19.2	0		Core loss.												
19.2	19.4			Weathered, orange microgranite with common biotite in last 10cms.												
19.4	42.8	23.4	100	COARSE GRAINED PINK GRANITE variable alteration. Minor splite.												
19.4	22.6			Coarse grained pink granite with very intense yellow kaolin alteration. Core very broken; crumbly from 20.2m to 20.6m.												
				Biotite common.												
22.6	26.9			Pale green alteration common with only sparse, weak kaolin alteration to 25.9m.												
26.9	27.0			Pale pink to grey, splitt-phase.												
27.0	36.9			Coarse pink granite with common yellowish kaolin alteration throughout. Low angle (5-10° to CA) weathered joints common. Pale green alteration present. Crumbly core between 29.6 and 30.7m.												
36.9	42.8			Coarse pink granite with lesser yellow argillisation. Some feldspars rimmed with kaolin. Minor greenish alteration. At 39.6m is 5cm diffuse, fine grained grey quartz-greilfsen vein. No mineralisation.												
42.8	49.5	6.2	92.5	COMPLEX ALTERED ZONE Mainly coarse pink granite and alteration to white granite with disseminated pyrite arsenopyrite and a thin sulphide vein.												
42.8	43.0			Coarse grained granite. Overall colour yellow grey due to complex argillised feldspars.												
43.0	43.7			Grades into grey, greenish (chloride?) argillised coarse granite with complete argillisation of feldspars, altered to pale green amorphous soft clay. Weak fabric throughout at 45° to CA. Trace disseminated, vuggy pyrite from 43.5m.												
43.7	44.0			Coarse white granite with disseminated pyrite, arsenopyrite and as minor irregular veinlets throughout. Feldspars not altered significantly.												
44.0	44.06			Vuggy, weathered massive sulphide vein, probably 45° to CA. Pyrite, arsenopyrite. Minor feldspar, quartz.												
44.06	45.2			White coarse granite with weakly altered feldspars, to pale green clay. Sparse to minor disseminated sulphide. Pyrite, arsenopyrite. Rare orange stain on joints (at 40° to CA). Alteration and sulphides increase from 44.7m. One veinlet, 15° to CA, of quartz, pyrite.												

150028

DIAMOND DRILL RECORD

HOLE NUMBER : SWY 18

LOGGED BY : A ROSS

028

INTERVAL (m)		RECOVERY		DESCRIPTION	FORM	% Sn.										
FROM	TO	m	%			FROM	TO	TOTAL	ACIDSOL.	% Cu.	% As.	% S.	% Pb.	% Zn.	% Bi.	g/t Ag
45.2	45.6			Altered, greenish-grey coarse granite, similar to 43.0 to 43.7m with weak fabric developed, 40-45° to CA, composed of numerous <u>pyrite microveinlets</u> . Disseminated pyrite, and veinlets, common. Chloritised granite?												
45.6	46.0			Grades into intensely argillised (yellow) coarse grained granite. Feldspars completely replaced. Very crumbly core in patches.												
46.0	48.65			Coarse pink granite with variably yellow argillisation, ranging from partial to complete alteration. Pale green alteration present from 48.3m and becomes more intense from this point.												
48.65	49.5	0.35		Grades into grey-green chloritised coarse granite with <u>trace disseminated pyrite</u> . Similar to 43.0, 45.2m.												
49.5	106.3	56.8	100	COARSE GRAINED GRANITE, mainly PINK VARIETY with minor WHITE variety. MINOR MICROGRANITE PHASES. VARIABLE ALTERATION OF COARSE GRAINED GRANITES												
49.5	57.0			Coarse grained pink granite with minor variable yellow kaolin? alteration, and minor pale green alteration. Rare, minor grey to pink microgranite phases, same as veins, others as diffuse patches. From 53.9 to 54.0m is minor intense altered, broken zone with <u>coarse tourmaline</u> , feldspar patch in a microgranite vein. Core becomes very broken and more altered from 55.2m.												
57.0	57.6			Large band of pink-grey microgranite. Core broken, no contact attitudes available. Weak alteration (i.e. slight yellow colour) for 5m around joints.												
57.6	61.5			Mainly coarse pink granite with minor alteration, grading to white coarse granite at 60.5m. Very crumbly altered (yellow) at 59.0 to 59.8m.												
61.5	61.7			Narrow band (45° to CA, contacts diffuse) of grey-green argillised (chloritised) granite. At the centre is a 3cm wide <u>chlorite-sphalerite-pyrite vein</u> at 45° to CA. Margin* of the vein composed of white clay.												
61.7	73.7			Coarse pink granite, mainly weathered with minor yellow altered zones between 70.5 and 72.5m. At 72.5m is limonite veinlet at 45° surrounded by 5cm of grey-green alteration.												
73.7	82.0			Coarse grained granite. Pink-red feldspars, less common.												
82.0	84.8			Zone of crumbly, kaolinised, pink coarse grained granite. Minor greenish alteration. Rare patch black <u>tourmaline</u> .												
84.8	95.8			Coarse pink granite. Insignificant alteration. Rare, narrow crumbly zones of yellow altered granite.												
95.8	97.9			Slightly, more altered coarse pink granite, including minor greenish argillised patches. Common, orange limonite veinlets at 45° to CA												

150029

DIAMOND DRILL RECORD

HOLE NUMBER : SWY 18

LOGGED BY : A. ROSS

029

INTERVAL (m)		RECOVERY		DESCRIPTION	FORM.	% Ss.										
FROM	TO	m	%			FROM	TO	TOTAL	ACID SOL.	% Cu.	% As.	% S.	% Pb.	% Zn.	% Bi.	g/t Ag
97.9	100.9			Less altered coarse pink granite, without significant alteration.												
100.9	101.35			Pink-grey microgranite dyke. Upper contact is sharp, at 45° to CA, and preceded by 8cm concentration of biotite. Lower contact is diffuse, gradational. Common limonite veinlets at 45° to CA.												
101.35	102.0			Complex mixed coarse grained granite Pink to white with unusual texture (not equigranular - sub porphyritic?). Grades into more normal variety.												
102.0	104.3			Coarse grained pink granite with increasing yellow alteration. Coarsely crumbly in parts. Minor green alteration.												
104.3	104.7			Minor zone of grey-green altered coarse granite with trace vuggy pyrite.												
104.7	106.3			Grades into less altered coarse pink granite with minor yellow, pale green alteration.												
106.3	110.7	4.4	100	PINK-GREY MICROGRANITE and minor coarse granite segregations.												
105.3	109.2			Upper contact sharp, 70° to CA. Mixture of pink, grey-green to pale grey microgranite with fine micas (green to dark brown). Diffuse, narrow (2cm) bands of orange alteration at 50° to CA.												
109.2	110.7			As above, but with irregular, diffuse coarse granite segregations. Overall grain size, slightly coarser. Common black biotite. Lower contact diffuse, gradational.												
110.7	135.1	24.4	100	COARSE GRAINED PINK GRANITE without significant alteration. Minor WHITE GRANITE.												
110.7	118.8			Bright green chloritic, argillisation common for 60cms below contact. Weakly altered, pale green alteration of pink granite. Diffuse grey green band at 116.3m.												
118.8	119.2			Diffuse band of WHITE GRANITE with limonite, and green argillisation. No minxl. Less biotite content.												
119.2	120.5			As before, weakly altered coarse pink granite.												
120.5	120.7			Patch of white granite with bright green alteration and orange, limonite.												
120.7	124.2			As before, weakly altered coarse pink granite.												
124.2	124.6			Zone of white coarse granite and minor pink granite. Chloritic alteration? No Minxl.												
124.6	133.9			Unaltered coarse granite with 50% pink, 50% white feldspars; slight pale green colouration of white feldspars.												
133.9	134.1			Diffuse microgranite "veins" and biotite segregations becoming common. CA's 40 to 45°.												
134.1	135.1			Patching alteration of coarse pink granite increasing. Patches of white granite with pale green argillisation last 10cms very												

150030

030

DIAMOND DRILL RECORD

HOLE NUMBER : SWY 18

LOGGED BY : A. ROSS

INTERVAL (m)		RECOVERY		DESCRIPTION	FORM.	% Sn.										
FROM	TO	m	%			FROM	TO	TOTAL	ACID SOL.	% Cu.	% As.	% S.	% Pb.	% Zn.	% Bi.	g/t Ag
135.1	136.2	1.1	100	PINK TO GREY APLITE AND MICROGRANITE: Variable grain size and with diffuse patches of dark grey in mostly pink and brown to grey aplite and microgranite. Some layering evident, 50° to CA. Upper and lower contacts diffuse and gradational into coarse granite.												
136.2	160.1	23.9	100	COARSE GRAINED PINK GRANITE AND MINOR WHITE GRANITE: Core crumbly in parts. Coarse pink granite with pale green alteration and yellow limonite? on joints.												
136.2	137.5															
137.5	140.4			Grades into competent coarse pink granite, relatively unaltered.												
140.4	141.2			Zone of grey-green coarse granite. Absence of pink feldspar. Bright green chloritic? alteration common.												
141.2	143.1			Weakly argillised coarse red granite with common greenish alteration of feldspars, and yellow kaolin on joints.												
143.1	143.4			Broken zone of altered white granite with diffuse black tourmaline band (1cm wide) at 45° to CA.												
143.4	147.0			Weakly altered coarse pink granite.												
147.0				Black tourmaline vein (1cm) at 45° to CA. No sulphides.												
147.0	156.4			Zone of relatively weathered, flesh coarse pink granite with sparse, narrow broken zones (with orange limonite) present.												
156.4	157.2			Grades into coarse white granite with minor greenish alteration. Rare pink feldspars. Fine sericite present. No minxl.												
157.2	158.1			Less altered, mainly coarse pink granite with minor greenish alteration. Minor white feldspars.												
158.1	158.2			Band of white granite. Limonite on joints.												
158.2	160.1			Mainly coarse pink granite with pale greenish alteration common. Gradational into coarse white granite.												
160.1	166.5	6.4	100	COARSE GRAINED WHITE GRANITE, minor GREISEN												
160.1	163.7			Coarse grained white granite. Gradual loss of pink feldspar. Overall, the granite contains white feldspar with minor greenish alteration. Core crumbly in part due to limonite on joints. Slight weathering of feldspars.												
163.7	164.5			Grades into Dark Grey to Pale Yellow Quartz - Mica rock (Greisen?) Upper and lower contacts diffuse and gradational. No sulphides, cassiterite seen.												
164.5	165.0			Weakly altered coarse grained white granite.												
165.0	165.5			Zone of grey-green quartz and altered white granite (greenish colour) with 2mm quartz-sulphide veinlet at 15° to CA. This vein contains coarse arsenopyrite and sphalerite, disseminated pyrite common												

150031

DIAMOND DRILL RECORD

HOLE NUMBER : SWY 18

LOGGED BY : A. Ross

031

INTERVAL (m)		RECOVERY		DESCRIPTION	FORM.	% Sn.										
FROM	TO	m	%			FROM	TO	TOTAL	ACID SOL.	% Cu.	% As.	% S.	% Pb.	% Zn.	% Bi.	g/t Ag
166.5	177.4	10.9	100	MIXTURE OF PINK TO WHITE, COARSE GRAINED GRANITES and minor QUARTZ-TOURMALINE VEINLETS.												
166.5	170.2			Grades into mixed coarse grained, pink and minor white granites. Varying amounts of pink feldspars and white feldspars. Weak alteration												
170.2	172.8			Grey quartz-tourmaline bands, with diffuse contacts, occurring in white to pink coarse grained granite. These veins occupy 2% of interval; are 1cm to 8cm in width, commonly 45° to CA, with grey quartz and black radiating tourmaline. Greenish to yellow alteration. No visible mineralisation. Granite is mainly white variety, with minor patches with pink feldspars.												
172.8	177.4			Coarse grained, white granite. One small patch of slight pink feldspars. White feldspars commonly altered with pale green to yellow alteration. Biotite irregularly distributed. Two 1cm wide quartz-tourmaline veins present (45° to CA).												
177.4	179.5	21	100	COARSE GRAINED, WHITE GRANITE - INCREASED ALTERATION. Orange and brown to green argillisation with trace sulphide. Two, 5cm wide quartz-tourmaline veins. Numerous limonitic joints, at 45° to CA. Weak fabric developed at 45° to CA, due to numerous microveinlets. Sulphide (pyrite) present (1%) as disseminations and minor blebs. Core broken from 177.8 to 178.1m		177.5	178.5	0.04		<0.05	<0.10					
						178.5	179.5	0.02		<0.05	<0.10					
179.5	185.5	60	100	PINK TO WHITE, COARSE GRAINED GRANITE. Less altered. Feldspars 50% white, 50% pink. Slight greenish alteration.												
185.5	191.2	5.7	100	COMPLEX ZONE OF PINK TO GREY MICROGRANITE, MEDIUM GRAINED AND COARSE GRAINED GRANITES:												
185.5	186.8			Upper contact sharp, at 60° to CA. White to pink-grey microgranite and diffuse rare pegmatite or coarser phases. Rare biotite.												
186.8	187.4			Zone of white and pink coarse grained granite. Slight greenish and orange-yellow alteration.												
187.4	188.4			Pink to greyish-white microgranite with rare medium grained quartz phenocrysts. Quartz porphyry?												
188.4	188.5			White to cream, sericitized, altered coarse, white granite porphyry?												
188.5	188.55			Broken core Quartz-black tourmaline vein.												
188.55	191.2			White to pink medium grained granite, with minor diffuse dark grey quartz-tourmaline veinlets. Biotite segregations. Texture is weakly porphyritic. Filmy pyrite on joints. Lower contact gradational, 45° to CA												

150032

DIAMOND DRILL RECORD

HOLE NUMBER : SWY 18

LOGGED BY : A. ROSS

032

INTERVAL (m)		RECOVERY		DESCRIPTION	FORM	% Sn.										
FROM	TO	m	%			FROM	TO	TOTAL	ACID SOL.	% Cu.	% As.	% S.	% Pb.	% Zn.	% Bi.	g/t Ag
191.2	249.1	57.4	99.3	MIXTURE OF PINK, WHITE COARSE GRAINED GRANITES, minor MICROGRANITES, APLITE:												
191.2	206.5			White to pink coarse grained granite. Varying proportions of white/pink feldspars. Alteration insignificant.												
206.5	208.6			Slight alteration, greenish-yellow argillisation of white coarse grained granite. One 3cm wide diffuse quartz-tourmaline vein at 207.1m.												
208.6	209.6			Pink to white coarse grained granite.												
209.6	209.9			Pink to white microgranite. Diffuse contacts Black biotite very common for 10cm at lower contact.												
209.9	215.15			White to pink coarse grained granite. Insignificant alteration (slight pale green)												
215.15	215.4			White to grey-green microgranite. Limonite on joints.												
215.4	215.7			Weathered? coarse grained granite Orange-brown limonite on joints and on veinlets throughout.												
215.7	221.6			Coarse grained, pink granite. First 2cm showing slight yellow argillisation, then afterwards insignificant alteration. Rare pink microgranites patch at 220m, 221.6m.												
221.6	224.0			Increase in alteration. White to pink coarse grained granite with yellow-green kaolinisation Intense weathering at 222.8m to 223m												
224.0	226.0			White to slight pink aplite dyke. Very jointed (30 to 40° to CA). Minor bands (15cm) of coarse white granite. Upper and lower contacts diffuse												
226.0	229.0	2.6		Zone of white coarse grained granite with common yellow green alteration. Crumbly zone around 228.3m. At 228.6m is <u>YUGGY</u> <u>boulangerite?</u> (radiating crystalline sulphide) - <u>pyrite, quartz vein</u> (orientation unclear) Crude segregations of black biotite at 45° to core axis near bottom contact of interval.												
229.0	231.1			Pink to grey microgranite. Irregular, minor segregations of black biotite. Upper and lower contacts diffuse, gradational.												
231.1	232.5			Coarse grained white granite, with minor yellow alteration, and segregations of black biotite.												
232.5	233.0			Complex mixture of white aplite, microgranite with a few coarse almost porphyritic bands. Layering at 40°												
233.0	234.8			White, coarse grained granite with minor yellow alteration. Two minor diffuse grey-quartz veins (1cm), one with trace pyrite.												
234.8	249.1			Zone of white to pink coarse grained granite (88%) and minor, up to 80cms bands of pink-grey, white-grey microgranite (12%). Some of the finer grained phases show attitudes of 40° to CA. Overall, weak alteration.												

150033

RENISON LIMITED - DRILL CORE RECORD

033

HOLE NUMBER	FED 1	SURVEY			From - To	Distance D	VERTICAL		HORIZONTAL	
		Depth	Bearing	Dip			D.Sin.Dip	R.L.	D.Cos.Dip	Prog.Total
PURPOSE	To test the Black Face Lode and coincident I.P. anomaly, Central Federation Area E.L. 11/76	00	?	- 50°	0 - 45.5	45.5	34.85	477.52	29.25	29.25
		91m	287° mag	- 50 3/4°	- 116.5	71.0	54.98	422.54	44.92	74.17
		142m	287 1/2°	- 51°	- 167.5	51.0	39.63	382.91	32.09	106.26
LOCATION	Top of Cumberland Hill, N.W. of Lake Cumberland E.L. 11/76	193m	289°	- 51 1/2°	- 197.5	30.0	23.48	359.43	18.67	124.93
COLLAR R.L.	512.37m									
CO-ORDINATES	5359810.74N 350397.89E									
LENGTH	197.5m									
HOLE SIZE	0 - 18m NQ 18m - End BQ									
DATE DRILLED	12.1.79 - 24.1.79									
SIGNIFICANT CORE LOSS ZONES										
ORE ZONE GROUND CONDITIONS										
LOGGED BY	K. WELLS									
COMMENTS	<p>Intersected a wide zone of intensely altered and hydrothermally brecciated "granite": Both older (red) and younger (white) granites affected. Occasional patches of Sn mineralisation and the zone requires further testing.</p> <p>* Rocks identified as mg 'red' granite in fact are probably mg 'white' granite which is very similar in appearance</p>									

SUMMARY - ASSAY DATA

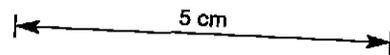
LODE NAME	FROM	TO	LENGTH (m)	AVERAGE WEIGHTED ASSAYS											B.C.A.	
				Sn	Acid Sol. Sn	Cu	As	S	Pb	Zn	Bi	WO ₃	Ag g/t			
BLACK FACE LODE	61.5m	102.5m	41.0m	0.06	40.01											
including	67.5m	69.5m	2.0m	0.65	"											

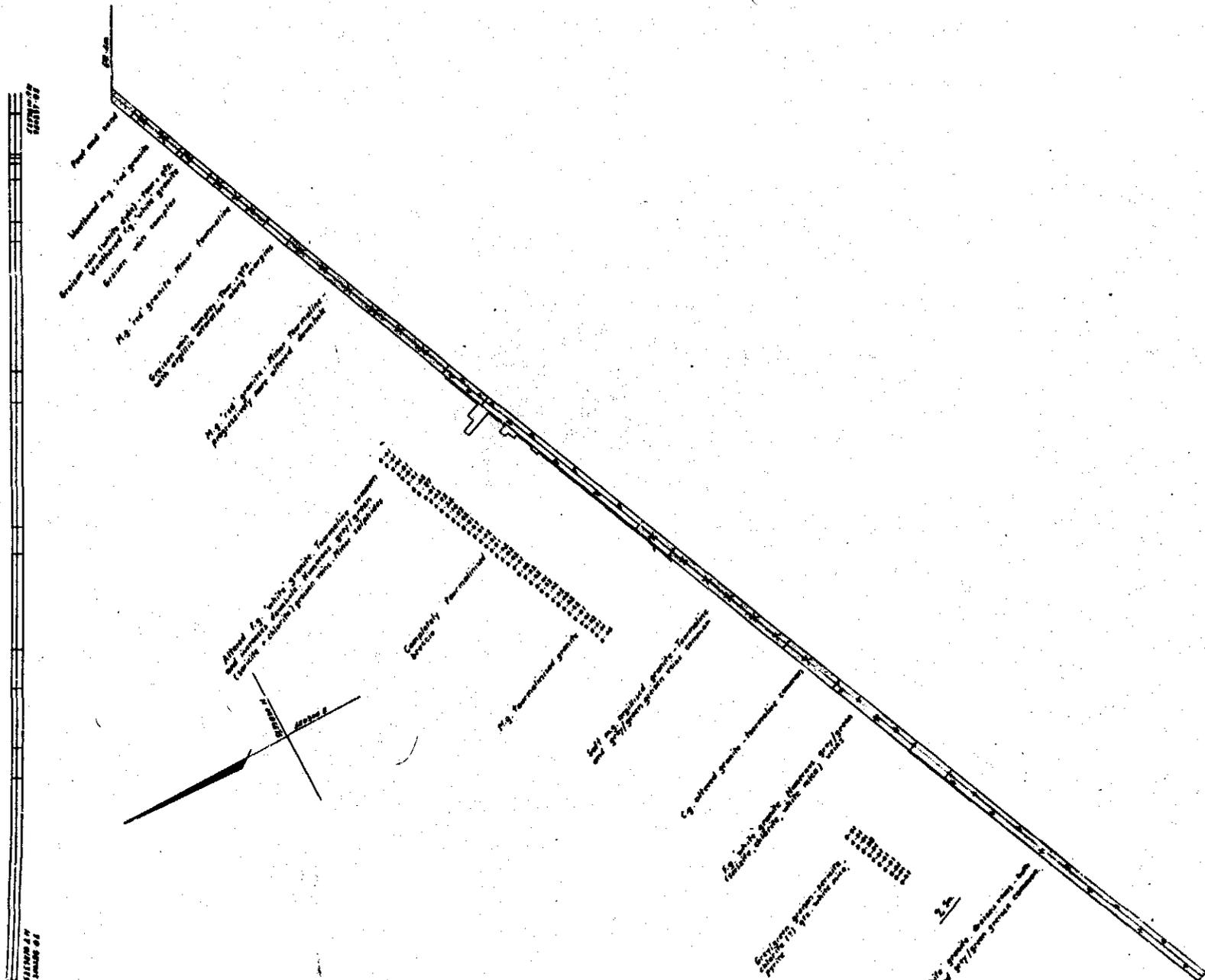
150034

HOLE No. FED 1

SCALE:  METRES

RENISON LIMITED DIAMOND DRILL HOLE PLOT

 5 cm



PLAN

DIP PROFILE

034

150035

035

DIAMOND DRILL RECORD

HOLE NUMBER : FED 1

LOGGED BY : K. W.

INTERVAL (m)		RECOVERY		DESCRIPTION	FORM	% S.										
FROM	TO	m	%			FROM	TO	TOTAL	ACID SOL.	% Cu.	% As.	% S.	% Pb.	% Zn.	% Bi.	g/t Ag
0	3.8	2.2	58	0 - 4.00m PEAT AND SAND												
	5.3	1.0	67													
	7.5	0.25	10	4.00m - 12.5m WEATHERED (RED?) GRANITE												
	8.8	0.25	20	Yellow/brown, Fe-stained, broken, weathered/alters, medium-grained												
	9.8	0.90	90	porphyritic granite. Phenocrysts of both quartz and feldspar.												
	11.3	0.25	15	Medium grained, "red" granite ?												
	12.8	0.25	15													
	14.0	1.20	100													
	15.8	0.45	25	12.5m - 13.2m GREISEN VEIN (WHITE DYKE)												
	18.0	2.20	100	Fine grained greisen vein varying from a black tourmalinised rock												
	29.5	11.50	100	with quartz to a grey quartzose (topaz?) greisen.												
				13.2m - 14.6m FINE-GRAINED (WHITE?) GRANITE												
				Fine grained, yellow/brown, Fe-stained, weathered/alters granite												
				with specks of tourmaline. Fine grained "white" granite?												
				14.6m - 15.5m SAND & BROKEN GRANITE												
				Sand and medium-grained weathered/alters porphyritic (red?) granite.												
				15.5m - 17.2m GREISEN VEIN (WHITE DYKE)												
				Medium grained white and black greisen vein (white dyke). Quartz												
				essentially unaltered (?) but feldspars and mica totally replaced												
				by black tourmaline and/or topaz. Minor, pale-coloured, fine-												
				grained pyrite also occurs as a replacement for feldspar etc. e.g. 13.8m.												
				17.2 - 18.3m ALTERED GRANITE												
				Along margin of "white dyke" altered/weathered, to clay, medium												
				-grained, porphyritic (red?) granite similar to 4.0 - 12.5m.												
				18.3m - 28.5m MEDIUM GRAINED, PORPHYRITIC GRANITE.												
				White-pink medium grained porphyritic ("red?") granite. Extensive												
				Fe-staining, due to weathering; but essentially unaltered												
				although some feldspars altered to green sericite, and K-feldspars												
				vary from pink to white (alteration?).												
				Minor specks and patches of tourmaline												

150036

DIAMOND DRILL RECORD

HOLE NUMBER : FZD 1

LOGGED BY : K.W.

INTERVAL (m)		RECOVERY		DESCRIPTION	FORM.	% Sr.											
FROM	TO	m	%			FROM	TO	TOTAL	ACID SOL.	% Cu.	% As.	% S.	% Pb.	% Zn.	% Bi.	g/t Ag	% WO ₃
29.5	32.5	2.0	67	28.5m - 33.3m GREISEN VEIN (WHITE DYKE) COMPLEX. Yellow/brown, soft, argillised, medium-grained granite bounding, two narrow zones of black and white, tourmalinised granite 30.0m - 30.3m and 32.2m - 32.5m. Tourmaline (and topaz?) replacing feldspars and mica, but no visible sulphides.													
32.5	59.5	27.0	100	33.3m - 61.2m MEDIUM GRAINED ("RED")? PORPHYRITIC GRANITE Medium-grained, pink-white, porphyritic, ("red")? granite. Above 42.0m essentially unaltered; consisting of pink and/or white feldspars, occasionally sericitised, black mica and grey quartz with larger phenocrysts of quartz and feldspar; occasional patches of tourmaline. Minor Fe-staining along some joints. After 42.0m the granite becomes progressively more altered, feldspars are sericitised and after 53.0m grey/green ^{veins} increase in frequency and size. The greisen veins, e.g. 58.2m, consist of quartz grains, often rounded, up to 3-4mm in diameter in a matrix of grey/green sericite, after feldspar and possibly some darker green chlorite after biotite. Minor, pale, fine-grained pyrite occurs both disseminated and as veinlets subparallel to the greisen vein margins which 'run' approximately 40° ^{to} the core axis and are probably vertical. THIN SECTION, 36.4m 61.2m CONTACT BETWEEN "RED" & "WHITE" GRANITES??													
59.5	71.5	12.0	100	61.2 - 78.3m ALTERED NON-PORPHYRITIC (WHITE?) GRANITE	61.5	62.5	0.01	0.01	0.05	0.10		0.007	0.065	0.003	1	<0.0	
	77.5	6.0	100	Fine-grained to medium-grained, non-porphyritic, yellow/green, altered ("white")? granite. Feldspars sericitised and no visible biotite, occasional splashes and veinlets of black tourmaline.		63.5	0.01	0.01	0.05	0.10		0.007	0.065	0.003	1	<0.0	
						64.5	0.01	0.01	0.05	0.10		0.006	0.075	0.003	1	<0.0	
						65.5	0.01	0.01	0.05	0.10		0.010	0.160	0.003	1	<0.0	
						66.5	0.01	0.01	0.05	0.10		0.006	0.060	0.002	1	<0.0	
				Grey/green greisen veins, similar to ones described in previous rock type, frequent, and often associated with some tourmaline.		67.5	0.01	0.01	0.05	0.10		0.014	0.190	0.003	1	<0.0	
				Fale pyrite (possibly arsenopyrite) occurs as odd disseminated grains within the yellow sericitised granite and occasionally in veinlets sometimes associated with a silvery mineral, possibly bismuthinite?		68.5	0.43	0.01	0.05	0.10		0.009	0.015	0.004	1	<0.0	
						69.5	0.87	0.01	0.05	0.10		0.023	0.065	0.002	2	0.0	
						70.5	0.01	0.02	0.05	0.10		0.016	0.037	0.002	1	<0.0	
						71.5	0.02	0.01	0.05	0.10		0.060	0.110	0.003	11	0.0	
						72.5	0.03	0.01	0.05	0.10		0.050	0.085	0.002	9	<0.0	
						73.5	0.24	0.01	0.05	0.10		0.005	0.015	0.002	1	<0.0	

150037

DIAMOND DRILL RECORD

HOLE NUMBER : FED 1

LOGGED BY : K.W.

INTERVAL (m)		RECOVERY		DESCRIPTION	FORM.	% Sn.										
FROM	TO	m	%			FROM	TO	TOTAL	ACID SOL.	% Cu.	% Al.	% S.	% Pb.	% Zn.	% Bi.	g/t Ag
122.5	131.5	9.00	100	<p>122.5 - 131.4m COARSE GRAINED ALTERED GRANITE</p> <p>Coarse-grained to medium-grained, yellow, partially altered granite with veins of tourmalinisation, which make an angle with the core axis between 20° and 45°. Some of the veins contain pale coloured pyrite and one circular patch of "schorl" at 129.6m</p>												
131.5	145.5	24.0	100	<p>131.4 - 145.8m FINE GRAINED ALTERED GRANITE</p> <p>Fine-grained to medium-grained, yellow, partially altered ("white") granite with widely developed grey/green greisen veins identical to 145.8 - 156.5m. The veins consist of fine quartz, sericite, white mica and pyrite often associated with fine black tourmaline veins which make an angle of approximately 45° with the core axis.</p>												
				<p>145.8m - 156.5m GREISEN</p> <p>Fine-grained to medium-grained grey/green greisen consisting of quartz, sericite and white mica, possibly some chlorite; Also disseminated, pale, fine-grained pyrite 5 - 10%.</p>	145.5	146.5	0.01	0.01	0.05	0.10		0.002	0.018	0.003	1	600
				<p>Tourmaline is common and prior to 150.0m occurs as veinlets striking approximately 40° to the core axis; after 150.0m the tourmaline becomes more massive and the appearance of a "white dyke". Occasional pegmatitic patches consisting of quartz and tourmaline e.g. 149.5m.</p> <p>THIN SECTION 147.6m, 1</p>	147.5	0.01	0.01	0.05	0.35		0.002	0.013	0.030	1	017	
					148.5	0.01	0.01	0.05	0.10		0.002	0.008	0.004	1	600	
					149.5	0.03	0.01	0.05	0.10		0.002	0.013	0.004	1	600	
					150.5	0.01	0.01	0.05	0.10		0.003	0.013	0.006	1	600	
					151.5	0.01	0.01	0.08	0.24		0.002	0.060	0.020	1	600	
					152.5	0.01	0.01	0.05	0.10		0.002	0.010	0.004	1	600	
					153.5	0.01	0.01	0.05	0.10		0.002	0.014	0.010	1	600	
					154.5	0.01	0.01	0.09	0.10		0.002	0.012	0.010	1	600	
				155.5	0.01	0.01	0.08	0.10		0.002	0.009	0.004	1	600		
				156.5	0.01	0.01	0.05	0.10		0.002	0.011	0.011	1	600		
155.5	197.5	42.0	100	<p>156.5 - 197.5m FINE MEDIUM GRAINED "WHITE" GRANITE</p> <p>Pale yellow/white, fine-grained to medium-grained "white" granite with numerous veins of grey greisen.</p> <p>The granite is non-porphyritic consisting of quartz, yellow sericitised/argillised feldspars and specks of black tourmaline; no visible biotite. Argillisation more intense 179.5m - 182.2m and the core is more broken. The granite becomes gradually coarser-grained down-hole.</p> <p>The greisen veins are frequent varying from 1cms wide up to 2.5m wide e.g. 191.7 - 194.2m and form an, approximate, 40° angle with the core axis, i.e. the veins are essentially vertical. The veins are grey/green and similar to 145.8m - 156.5m, consisting of quartz, sericite, white mica, pyrite and possibly chlorite; Tourmalinisation</p>												

041

DIAMOND DRILL RECORD

HOLE NUMBER : FZD 2

LOGGED BY : E.V.

INTERVAL (m)		RECOVERY		DESCRIPTION	FORM.	% Sn										
FROM	TO	m	%			FROM	TO	TOTAL	ACID SOL.	% Cu.	% As.	% S.	% Pb.	% Zn.	% Bi.	g/t Ag
0	3.5	3.5	100	0 - 1.0m FEAT												
	6.5	0.75	25	1.0m - 6.5m WEATHERED GRANITE Broken, weathered, medium-grained ('red') granite. Quartz and biotite generally unweathered but feldspars gone to yellow/brown "clay". Remains of a narrow greisen (white dyke) vein at approximately 6.0m												
6.5	21.5	6.8	45	6.5 - 21.5m SAND Fine quartz sand with some clay and odd fragments of granite. Driller reports fault at 21.0m.												
21.5	24.0	1.75	70	21.5 - 24.0m GREISEN (WHITE DYKE) VEIN Broken remnants of a medium-grained tourmaline ('white dyke') greisen vein. Alteration patchy; generally quartz unaffected but feldspars and mica largely replaced by tourmaline and occasionally topaz (?) and pyrite. Rock texture similar to adjacent granite. Some vein boundaries form an angle of 45° with core axis (veins vertical ?)												
24.0	35.0	11.0	100	24.0 - 36.5m M.C. - C.G. ("RED") GRANITE Medium-grained to coarse-grained, slightly altered/weathered ("red" granite/ Extensively fragmented down to 28.0m. Granite similar to 1.0 - 6.5m but yellow in colour, feldspars (K. or plag ??) exhibit stronger alteration to clay and/or sericite. 20cms wide grey/green mica/tourmaline greisen vein at 28.8m.												
35.0	38.0	3.0	100	36.5 - 39.8m FINE GRAINED ("WHITE") GRANITE. Fine-grained, grey, hard, unaltered, even-textured ("white") granite similar to 97.7m - 137.8m. Intruded into coarser granite (?) with smaller intersections adjacent to it. Minor tourmaline veinlets 45° to core axis (vertical?)												

150042

042

DIAMOND DRILL RECORD

HOLE NUMBER : PZD 2

LOGGED BY : K.V.

INTERVAL (m)		RECOVERY		DESCRIPTION	FORM	% Sn.										
FROM	TO	m	%			FROM	TO	TOTAL	ACID SOL.	% Cu.	% Al.	% S.	% Pb.	% Zn.	% Bi.	g/t Ag
38.0	80.0	41.2	100	<p>39.8 - 81.0m M.G. - C.G. ("RED") GRANITE</p> <p>Medium-grained to coarse-grained, occasionally slightly porphyritic ("red") granite similar to 1.0 - 6.5m and 24.0 - 36.5m. Quartz, biotite and feldspars all well developed, latter frequently altered to yellow clays/sericite.</p> <p>Occasional "veins" of grey greisen up to 30cms wide consisting of quartz, white mica, tourmaline and minor pyrite. Veins generally form a 45° angle with core axis.</p> <p>Rare thin veinlets of tourmaline occur and a pegmatite consisting of colourless quartz and pinkish feldspars occurs at 71.3m.</p>												
80.0	83.7	3.7	100	<p>81.0 - 85.0m GREISEN VEIN("WHITE DYKE") COMPLEX</p> <p>Margins of vein bounded by a zone of clay and/or sericite development; Quartz grains similar to adjacent granite but micas and feldspars replaced, also a small patch of fluorite observed; From 82.7m - 84.5m consists of quartz, tourmaline and/or topaz.</p> <p>Drillers report a 0.7m void, presumed to be an old working (no survey pick up) at 83.7m.</p>	81.0	82.0	<0.01	<0.01	<0.05	<0.10	0.002	0.010	0.010	1		
	86.0	2.3	100			83.0	<0.01	"	<0.05	<0.10	0.001	0.005	<0.001	<1		
						83.7	<0.01	"	<0.05	<0.10	0.001	0.006	"	<1		
						85.0	<0.01	"	<0.05	<0.10	0.004	0.013	0.001	1		
86.0	98.0	12.00	100	<p>85.0m - 97.7m M.G. - C.G. ("RED") GRANITE</p> <p>Medium-grained to coarse-grained, occasionally slightly porphyritic ("red") granite similar to 39.8m - 81.0m and previous intersections. Pale coloured and feldspars occasionally altered to a greenish sericite; From approximately 94.0 - 95.0m core broken where feldspars altered to a yellow/ochre clay.</p> <p>Very minor patches and veinlets of tourmaline and grey/green mica greisen.</p>												
98.0	137.8	39.8	100	<p>97.7m - 137.8m FINE GRAINED ("WHITE") GRANITE</p> <p>Fine-grained ("white") granite. Contact with overlying granite roughly marked by a semi-pegmatitic zone consisting of quartz and feldspar.</p> <p>Variously altered and often extensively broken immediately below contact. Alteration decreases downhole and after 122.0m the granite is essentially hard and unaltered, but with numerous tourmaline veinlets and patches (nodules).</p>												

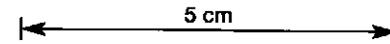
150043

HOLE No FEB 3

SCALE:

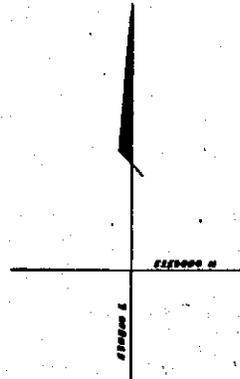


RENISON LIMITED
DIAMOND DRILL HOLE PLOT

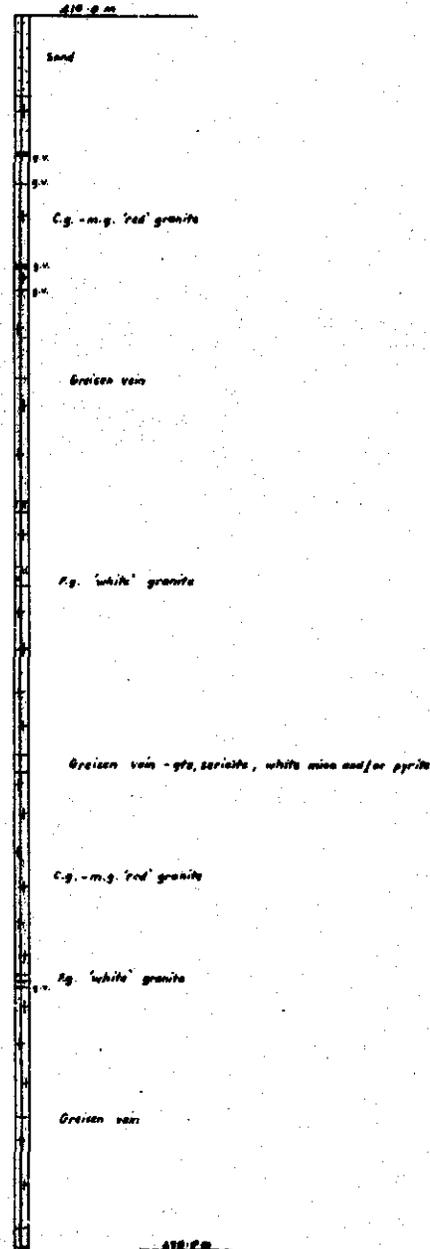


⊗ 230000-1 m
230000-1-2 g

PLAN



DIP PROFILE



045

150046

DIAMOND DRILL RECORD

HOLE NUMBER : FED 3

LOGGED BY : K.V.

INTERVAL (m)		RECOVERY		DESCRIPTION	FORM.	% m.											
FROM	TO	m	%			FROM	TO	TOTAL	ACID SOL.	% Cu.	% As.	% S.	% Pb.	% Zn.	% Bi.	g/t Ag	% WO ₃
0	8.7	5.0	57	0 - 8.7m SAND Granite weathered to quartz sand and minor rock fragments.													
8.7	10.1	0.9	64	8.7m - 131.5m COARSE - MEDIUM GRAINED ("RED") GRANITE Coarse - medium grained ('red') granite. Quite strongly weathered down to 16.0m, but the intensity of weathering gradually decreases below this. The granite consists of large, crystals of grey, quartz, white - pink feldspars and smaller black biotite crystals. Colour varies from pink to yellow/white and depends on patchy argillic alteration/sericitisation of the feldspars. Small intrusion of ("white") micro-granite are common occurring: 14.8 - 15.1m. 52.2 - 53.4m. 59.0 - 61.2m. - pegmatitic zone at 59.0m 66.8 - 66.9m 102.6 - 103.0m. Greisen veins consisting essentially of quartz, green sericitised feldspar and occasionally fine, white mica and/or pyrite also occur at: 14.9 - 15.1m, has white mica or pyrite in a vein 30° to core axis 18.4m, fine pyrite/green sericite veinlets. 50° to core axis. 27.2 - 27.4m, fine pyrite. 30.0m, fine pyrite/green sericite vein 40° to core axis. 39.2 - 39.4m, green sericite alteration of feldspars. 79.4m - 81.1m, green feldspar/pyrite veins. 104.0m grey mica greisen vein. 112.8 - 113.1m, grey/green quartz, sericite/white mica greisen, minor pyrite. Rock usually very competent below level of weathering; one broken zone at 121.5m associated with some greenish alteration.													
	11.6	1.2	80														
	14.2	1.8	70														
	131.5	117.3	100														
				END OF HOLE													

HOLE No: **FED 4**

SCALE



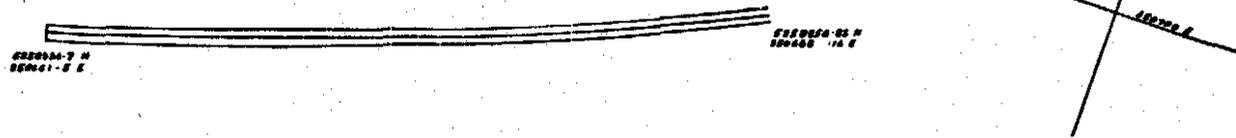
**RENISON LIMITED
DIAMOND DRILL HOLE PLOT**

5 cm

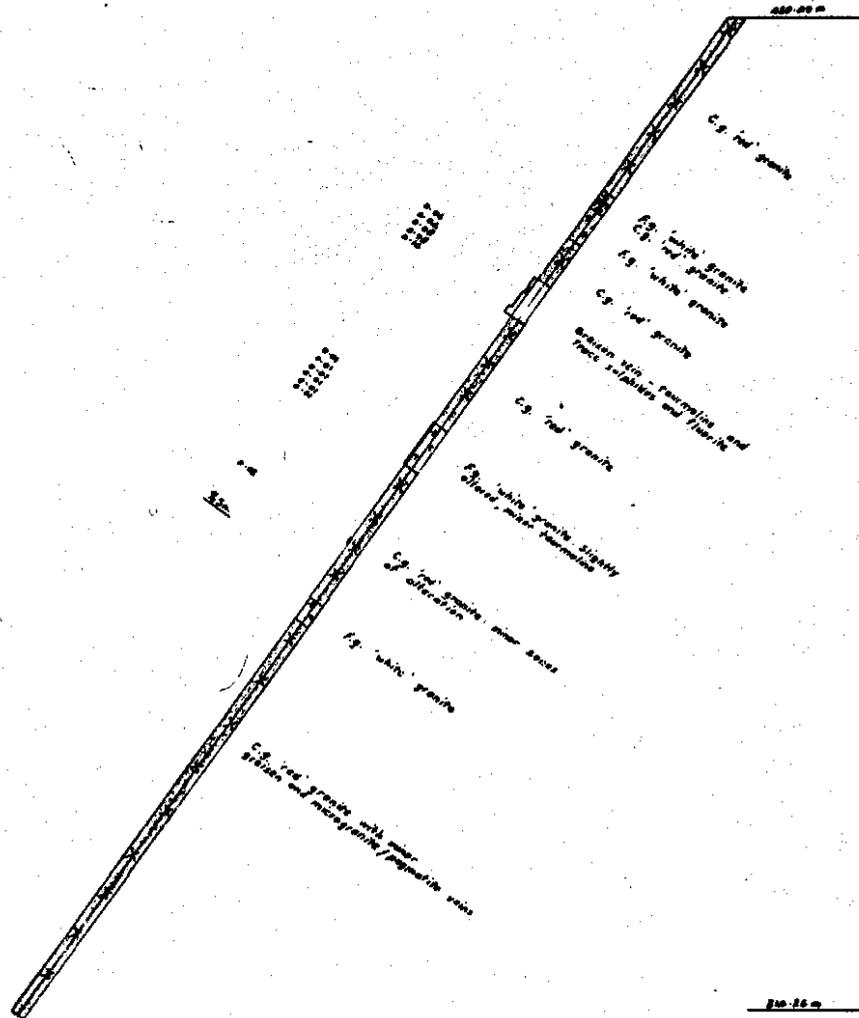
A horizontal scale bar representing 5 cm.

048

PLAN



DIP PROFILE



150049

DIAMOND DRILL RECORD

HOLE NUMBER : FED 4.

LOGGED BY : A.R.

INTERVAL (m)		RECOVERY		DESCRIPTION	FORM.	% Sn.										
FROM	TO	m	%			FROM	TO	TOTAL	ACID SOL.	% Cu.	% As.	% S.	% Pb.	% Zn.	% Bi.	g/t Ag
0	23.35	22.85		<p>COARSE "RED" GRANITE</p> <p>0 - 8.5m: Coarse grained red-grey granite. Equigranular. Feldspars partially altered to yellow, green clays. Biotite common. Rare orange weathered zones, 5 to 10cms wide.</p> <p>8.5 - 9.0m: Core loss. Few fragments orange stained weathered "red" granite.</p> <p>9.0 - 18.3m: Coarse grained red-grey granite. Equigranular. Feldspars partially altered to yellow, green clays.</p> <p>18.3 - 20.2m: Slightly more intensely altered. Yellow clay altered feldspars, very common. Core broken over 20 - 30cms.</p> <p>20.2 - 23.35: As before. Partially altered granite.</p>												
23.35	24.2	0.85	100	<p>MIXED ZONE. MICROGRANITE DYKE.</p> <p>Zone of mainly grey (slightly red in parts) microgranite to fine grained granite. Few minor embayments or mixed granite zones. Contacts well defined and 45° to CA. Near the upper contact is 5cm vuggy zone with coarse quartz crystals and graphic textured granite.</p>												
24.2	26.1	1.9	100	<p>COARSE RED GRANITE</p> <p>As before red grey in colour, equigranular and with minor yellow altered feldspars.</p>												
26.1	29.5	3.4	100	<p>MICROGRANITE DYKE - SLIGHT GREISEN</p> <p>26.1 - 26.4m: Red-grey medium grained granite. Diffuse upper contact, possibly 60° to CA.</p> <p>26.4 - 27.1m: White to grey microgranite.</p> <p>27.1 - 27.75m: Coarse grained white granite.</p> <p>27.75 - 29.5m: Grey-green zone of medium grained granite with green-black tourmaline, mainly as veinlets. Trace pyrite. Veinlets 45 to CA. Bottom 10cms with greenish clay and fine green alteration.</p>												

050

DIAMOND DRILL RECORD

HOLE NUMBER : FED. 4

LOGGED BY : A.R.

INTERVAL (m)		RECOVERY		DESCRIPTION	FORM.	% Sn.										
FROM	TO	m	%			FROM	TO	TOTAL	ACID SOL.	% Cu.	% As.	% S.	% Pb.	% Zn.	% Bi.	g/t Ag
				27.5 - 28.3m: White to light grey, fine grained, microgranite with rare black tourmaline. Trace pyrite.												
				28.1 - 28.33m: Grey-black tourmaline veinlets at 45° to GA. Trace pyrite.												
				28.33 - 28.6m: White medium grained granite. Trace fine grained pyrite. Slight green alteration.												
				28.6 - 29.1m: Dark grey-green greisenised granite. Fine grained. Trace pyrite												
				29.1 - 29.5m: Grey-white fine grained, microgranite. Gradational lower contact.												
29.5	35.2	5.7		COARSE WHITE GRANITE Similar to coarse red granite, although pink feldspars are now white with occasional pink tinge. Minor yellow clay alteration of feldspars. Last 50cms very clay rich and altered.												
35.2	40.1	4.9		COARSE GREISENISED GRANITE Mixture of weakly greisenised white granite through to dark grey, almost completely, greisenised coarse granite. Trace sulphide (pyrite, arsenopyrite, purple fluorite, (disseminated and in rare veinlets), Rare black tourmaline. Minor zones of coarse mixed quartz and granite (e.g. at 38.6m). Very fine grained from 39.4 to 39.9m (dyke).		35.2	36.2	0.06	0.05	0.10						
							37.2	0.04	0.05	1.35						
							38.2	0.08	0.06	0.25						
							39.2	0.08	0.05	0.10						
							40.1	0.16	0.13	0.30						
40.1	51.0			COARSE GRAINED GRANITE 40.1 - 40.7m: Very altered, clayey white granite, similar to the other contact of the above greisen zone. 40.7 - 43.2m: Pink to white coarse grained granite. Minor clayey alteration. 43.2 - 44.0m: Very clayey weathered granite (ore broken). 44.0 - 51.0m: Mainly pink coarse grained granite with minor clayey alteration of feldspars.												

150051

051

DIAMOND DRILL RECORD

HOLE NUMBER : FZD. 4.

LOGGED BY : A.R.

INTERVAL (m)		RECOVERY		DESCRIPTION	FORM.	% Sn.										
FROM	TO	m	%			FROM	TO	TOTAL	ACID SOL.	% Cu.	% As.	% S.	% Pb.	% Zn.	% Bi.	g/t Ag
51.0	51.3			Grey-white mixed medium grained granite and coarse grained granite. Bottom contact definite and 30° to CA. Similar to 51.55 to 51.8m.												
51.3	51.55			COARSE, RED GRANITE As usual.		54.0	55.0	0.01	0.05	0.10						
51.55	51.8			Grey-white mixed medium grained granite, (pegmatite in part). Same as 51.0 to 51.3m.			56.0	0.01	0.05	0.10						
51.8	54.0			COARSE GRAINED RED GRANITE. As usual.			57.0	0.01	0.05	0.10						
54.0	59.6			GREY-WHITE MICROGRANITE TO MEDIUM GRAINED GRANITE DYKE. 54.0 - 54.15m: Mixed zone with red granite, resulting in graphic texture, as defined by acicular "tourmaline" needles. 54.15 - 59.6m: Grey-white medium grained granite with slight alteration and unusual "blotchy" texture in parts. Rare tourmaline veinlets with trace pyrite (veinlets 45° to CA). Several minor quartz veinlets or segregations. Lower contact diffuse.			58.0	0.01	0.05	0.10						
59.6	59.9			COARSE GRAINED GRANITE Mostly white with minor patches of pink feldspars. Minor clay alteration.			59.0	0.01	0.05	0.10						
59.9	68.6			MIXED ZONE OF COARSE GRAINED GRANITE & WHITE MEDIUM GRAINED GRANITE Minor veinlets of black tourmaline at 45° to core axis.			59.6	0.01	0.05	0.10						
68.6	69.3			WHITE COARSE GRAINED GRANITE												
69.3	69.85			ALTERED ZONE. Dark grey green zone. around narrow chlorite, pyrite vein (1cm) at 40° to CA. Decreasing alteration away from central vein. Arsenopyrite ?		69.3	69.85	0.02	0.05	0.20						
69.85	77.0			COARSE GRAINED GRANITE. Pink to white. Usual, yellow to green clayey alteration of feldspar.												
77.0	79.75			WHITE-GREY MICROGRANITE DYKE trace pyrite. Rare diffuse veinlets and patches of tourmaline? Veinlets 70 to 80 to CA (and some at 41°). Lower contact gradational to coarse grained granite. Upper zone better defined but core is broken.												

150052

DIAMOND DRILL RECORD

HOLE NUMBER : FED. 4.

LOGGED BY : A.R.

INTERVAL (m)		RECOVERY		DESCRIPTION	FORM.	% Sn										
FROM	TO	m	%			FROM	TO	TOTAL	ACID SOL.	% Cu.	% Al.	% S.	% Pb.	% Zn.	% Bi.	g/t Ag
79.5	82.7			WHITE COARSE GRAINED GRANITE. As usual												
82.7	82.9			Minor zone of alteration about a narrow chlorite-pyrite? vein. at 30° to CA.												
82.9	89.25			WHITE COARSE GRAINED GRANITE as usual. Rare narrow vein of medium grained granite.												
89.25	90.6			MIXED DYKE of medium grained and coarse grained granites. Colour grey-white. A 20cm zone of dark grey microgranite/greisen? at 25° to CA, around a narrow quartz, tourmaline vein. Upper, lower contacts sharp, at 50°.												
90.6	99.4			PINK TO WHITE COARSE GRAINED GRANITE. As usual Minor weathered zone at 94.3 to 94.7m. Several zones of biotite segregations.												
99.4	99.5			GREY QUARTZ-SULPHIDE VEIN - Lower contact 30° to CA.												
99.5	102.7			WHITE TO PINK COARSE GRAINED GRANITE. Unusual biotite segregation (minor). Rare dark grey quartz-greisen vein.												
102.7	106.4			UNUSUAL MIXED ZONE 102.7 - 105.0m: Mixture of fine grained and coarse grained granites resulting in porphyritic/pegmatitic mixture. Rare veinlets, grey alteration. Trace pyrite. 105.0 - 105.3m: Porphyritic coarse grained granite with mixed groundmass. 105.3 - 105.4m: Grey altered veinlet/zone. Chlorite, quartz, pyrite, tourmaline? 105.4 - 106.0m: Porphyritic coarse grained granite. 106.0 - 106.4m: Grey-white microgranite dyke.												
106.4	108.5			WHITE TO PINK COARSE GRAINED GRANITE												

150053

DIAMOND DRILL RECORD

HOLE NUMBER : FED. 4

LOGGED BY : A.R.

INTERVAL (m)		RECOVERY		DESCRIPTION	FORM	% Cn										
FROM	TO	m	%			FROM	TO	TOTAL	ACID SOL.	% Cu	% As	% S	% Pb	% Zn	% Bi	g/t Ag
108.5	109.7			Grey to white mixed microgranite dyke, rare tourmaline veinlet. Minor coarse grained granite. Trace pyrite.												
109.7	131.0			COARSE GRAINED GRANITE with minor fine grained granite zones, pegmatite.												
				109.7 - 112.8m: Pink to grey coarse grained granite with minor green, yellow clayey alteration of feldspars. Rare biotite segregations.												
				112.8 - 112.85m: Grey alteration around 5mm quartz veinlets.												
				112.85 - 120.3m: Pink to grey coarse grained granite with minor yellow clayey alteration. At 118.1m, is minor quartz zone.												
				120.3 - 120.5m: Grey to white pegmatitic zone. Contacts diffuse, 50° to core axis.												
				120.5 - 120.5m: Pegmatite, biotite zone.												
				120.7 - 122.8m: Pink, grey coarse grained granite.												
				122.8 - 122.9m: Grey microgranite vein.												
				122.9 - 123.05m: Grey coarse grained granite.												
				123.05 - 123.1m: Grey microgranite vein.												
				123.1 - 129.3m: Pink to grey coarse grained granite. Slight yellow clayey alteration.												
				129.3 - 129.4m: Pink pegmatite zone.												
				129.4 - 129.5m: Coarse grained granite.												
				129.5 - 129.65m: Grey quartz/microgranite vein.												
				129.65 - 131.0m: Pink to grey coarse grained granite. Trace pyrite.												
				END OF HOLE 131.0m												

RENISON LIMITED - DRILL CORE RECORD

054

HOLE NUMBER	FED 5	SURVEY			From - To	Distance D	VERTICAL		HORIZONTAL	
		Depth	Bearing	Dip			D.Sin.Dip	R.L.	D.Cos.Dip	Prog.Total
PURPOSE	TO TEST COINCIDENT MAGNETIC, I.P. ANOMALY NEAR WAXMAN AND WESTON'S WORKINGS. ANOMALIES G,F.		magnetic					417.31		
		0		-46½	0- 14	14	10.155	407.16	9.637	9.64
LOCATION	FEDERATION GRID, LINE 6E 120mS BEARING GRID NORTH, DIP -45°.	28		-50	14- 48	34	26.045	381.11	21.855	31.49
		67	331	-51	48- 89	41	31.863	349.25	25.802	57.29
COLLAR R.L.	417.31	111	332	-52	89-133	44	34.672	314.58	27.089	84.38
		156	332½	-53	133-171	38	30.348	284.23	22.869	107.25
CO-ORDINATES	5359538.523mN 350883.172mE	186	332	-53	171-201.5	30.5	24.358	259.87	18.355	125.61
LENGTH	201.5m									
HOLE SIZE	0 - 17m HQ 17 - 63m NQ 63 - 201m BQ									
DATE DRILLED	14/3/79 to 27/3/79									
SIGNIFICANT CORE LOSS ZONES										
ORE ZONE GROUND CONDITIONS	VERY BAD GROUND CONDITIONS. NEXT TIME, TAKE NQ ALL THE WAY.									
LOGGED BY	A. ROSS									
COMMENTS	VERY POOR GROUND CONDITIONS. FAULT AT 188.2m. ENTIRE HOLE ENCOUNTERED ALTERED GRANITES, WITH SPORADIC PYRITE MINERALISATION, AND MINOR HEMATITE, MAGNETITE. WORTHY OF ANOTHER HOLE. (ALTERATION SIMILAR TO SWEENEY'S !)									

SUMMARY - ASSAY DATA

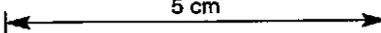
LODE NAME	FROM	TO	LENGTH (m)	AVERAGE WEIGHTED ASSAYS											B.C.A.
				Sn.	Acid Sol. Sn.	Cu.	As.	S.	Pb.	Zn.	Bi.	WO ₃	Ag g/t		
	103.0	107.0	4	0.56	0.01	0.05	0.10		0.01	0.01	0.01		1		
	181.0	184.0	3	0.48	0.01	0.05	0.10		0.01	0.06	0.01		3		

150053

HOLE No. FE0 5

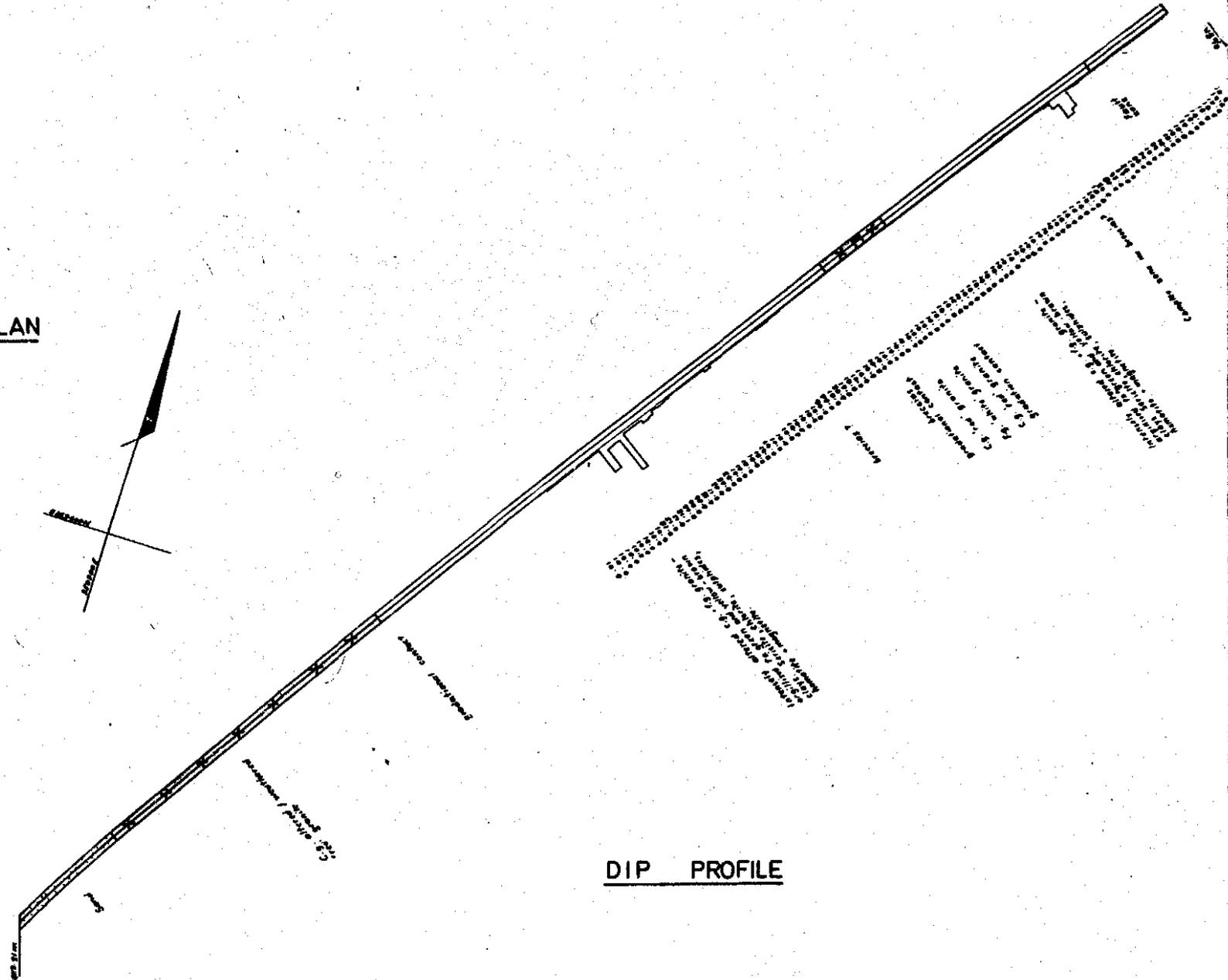
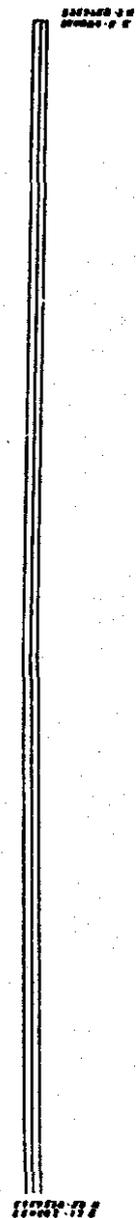
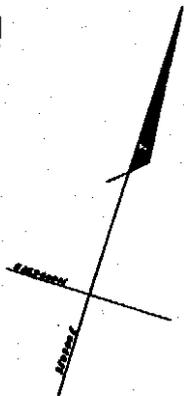
SCALE:  metres

RENISON LIMITED DIAMOND DRILL HOLE PLOT

 5 cm

053

PLAN



DIP PROFILE

150056

056

DIAMOND DRILL RECORD

HOLE NUMBER : FED 5
 LOGGED BY : A. ROSS

MAPS

INTERVAL (m)		RECOVERY		DESCRIPTION	FORM	% Sn.										
FROM	TO	m	%			FROM	TO	TOTAL	ACID SOL.	% Cu.	% Ag.	% S.	% Pb.	% Zn.	% Bi.	g/t Ag
0	18.2	0	0	Pink to brown sand. Very coarse to 3m. From 3m, fine to medium grained sand.												
18.2	21.2	1.5	50	Weathered coarse grained granite.												
21.2	24.1	1.0	34.5	Weathered fine grained granite. Rare pyrite veinlets 45° to GA.												
24.1	39.2	3.8	25.2	Weathered coarse grained granite and rubble. Red coarse grained granite to 26.2m. Trace fine pyrite to 26.3m, 36.7 to 36.9m.												
39.2	48.2	8	88.9	Weathered yellow to pink coarse grained granite and rubble. Weathered pyrite veinlets? at 46m.												
48.2	51.2	3	100	Weathered coarse grained granite, slightly argillised from 49.9 to 51.2m, with trace fine pyrite.												
51.2	54.2	2	66.7	Weathered coarse grained granite. Minor zones of quartz, chlorite? (dark grey).												
54.2	57.2	3	100	54.2-55.5m: Weathered coarse grained granite (c.g.g.) with minor weathered quartz-chlorite zones. 55.5-56.5m: Dark grey-green fine grained chlorite? rock. 56.5-57.2m: Weathered c.g.g.												
57.2	60.2	2.8	93.3	Weathered c.g.g. with minor narrow zone chlorite rock.												
60.2	63.0	2.8	100	Weathered c.g.g. and rubble. Slightly argillised.												
63.0	65.3	1	43.5	Yellow brown weathered/altered c.g.g.												
65.3	67.0	0.7	41.2	Grey-green, chlorite? rich altered c.g.g.												
67.0	73.2	6.2	100	Altered c.g.g. Altered yellow green brown, occasional pink feldspars. Core broken.												
73.2	74.0	0.8	100	Slight greenish alteration of coarse grained granite.												
74.0	80.9	6.9	100	As before, yellow green brown altered c.g.g. Very rare minor quartz vein.												
80.9	81.0	2.1	100	Increased greenish altered c.g.g. zone. Rare patch black												

150057

DIAMOND DRILL RECORD

HOLE NUMBER : FED 5
LOGGED BY : A. ROSS

INTERVAL (m)	RECOVERY		DESCRIPTION	FORM.	% Sn.												
	FROM	TO			m	%	FROM	TO	TOTAL	ACID SOL.	% Cu.	% As.	% S.	% Pb.	% Zn.	% Bi.	g/t Ag
136.3	136.4		100	Pink brown-green altered fine grained granite with vughs (pyrite filled) common.		121	122	0.07	0.01	0.05	0.10		0.003	0.048	0.003	1	
						122		0.01	"	"	"		0.002	0.046	0.004	1	
						123		"	0.01	"	"		0.002	0.049	0.005	1	
136.4	137.5		100	Light green altered/argillised fine grained granite with trace pyrite. Sub-porphyrific with quartz phenocrysts.		124		0.01	0.01	"	"		0.001	0.023	0.005	1	
						125		0.01	"	"	"		0.001	0.022	0.004	1	
						126		0.01	"	"	"		0.002	0.030	0.006	1	
137.5	142.9		100	As before. Dark grey-green to light green altered fine grained granite. Few "breccia fragments"/zones of brownish altered granite. Trace pyrite. Very coarse pyrite vein at 141m (30° to CA).		127		0.01	"	"	"		0.001	0.030	0.005	1	
						128		"	"	"	"		0.002	0.055	0.005	1	
						129		0.01	"	"	"		0.003	0.065	0.005	1	
						130		0.04	"	"	"		0.002	0.065	0.005	1	
142.9	147.8		100	Grades diffusely into less altered, coarse grained granite. Rare tourmaline veinlets. Unmineralised but slightly argillised. Becoming pinkish after 144.5m. Rare narrow (3cm) altered zones. Texture - coarse grained sub-porphyrific.		131		0.04	"	"	"		0.002	0.030	0.004	1	
						132		0.01	"	"	"		0.001	0.025	0.003	1	
						133		0.02	"	"	"		0.001	0.047	0.004	1	
						134		0.01	"	"	"		0.002	0.023	0.004	1	
						135		0.01	0.01	"	"		0.003	0.010	0.003	1	
147.8	149.1		100	Fine to medium grained weakly altered granite. Brownish alteration.		136		"	"	"	"		0.002	0.013	0.002	1	
						137		"	"	"	"		0.002	0.023	0.002	1	
149.1	152.9		100	Back into coarse grained porphyritic granite with narrow pegmatitic segregations. Feldspars pink in places.		138		"	"	"	"		0.001	0.036	0.002	1	
						139		"	"	"	"		0.002	0.031	0.002	1	
						140		"	"	"	"		0.002	0.024	0.003	1	
152.9	155.4		100	As above but with zones of alteration to pale green chloritic/clay zones. At 153.1m is "vein" at 45° to CA.		141		0.01	"	"	"		0.002	0.018	0.002	1	
						142		0.01	"	"	"		0.001	0.039	0.002	1	
						143		"	"	"	"		0.003	0.062	0.003	1	
155.4	158.8	3.0	88.2	Grades into more intensely altered to completely altered coarse grained granite. Chloritic alteration. Trace pyrite. Rare minor vughs. Core very broken from 158.2 to 158.8m. Porphyritic texture evident. Core loss 0.4m.		144		"	"	"	"		0.004	0.036	0.002	1	
						145		"	"	"	"		0.003	0.033	0.004	1	
						146		"	"	"	"		0.004	0.031	0.005	1	
						147		"	"	"	"		0.003	0.016	0.004	1	
						148		"	"	"	"		0.004	0.038	0.005	1	
158.8	166.6		100	Intensely altered zone. Coarse grained granite - porphyritic texture still evident. Various green, orange/brown, pink colours. Narrow zone with sub-pegmatitic texture at 161.6 to 162.3m. Trace pyrite in parts. Not significantly mineralised.		149		"	"	"	"		0.003	0.033	0.005	1	
						150		"	"	"	"		0.002	0.024	0.004	1	
						151		"	"	"	"		0.002	0.019	0.004	1	
						152		"	"	"	"		0.003	0.060	0.004	1	
						153		"	"	"	"		0.003	0.140	0.004	1	
166.6	176.0	7.0	74.5	Core becoming very broken - core loss. Pale green argillised/ altered coarse grained, porphyritic granite with puggy zones. and sporadic medium grained disseminated pyrite. Rare coarse grained pyrite. Major core loss 173.2 to 175.1m. (0.9m recovered).		154		"	"	"	"		0.002	0.050	0.005	1	
						155		"	"	"	"		0.007	0.050	0.006	1	
						156		"	"	"	"		0.002	0.013	0.006	1	
						157		"	"	"	"		0.003	0.020	0.005	1	
						158		"	"	"	"		0.006	0.055	0.006	1	
176.0	178.9		100	Complex Zone. Altered coarse grained granite - porphyritic intruded by narrow zones of extremely fine grained granitoid rock as veins and large masses/fragments with prominent line layering on		159		"	"	"	"		0.001	0.015	0.006	1	
						160		"	"	"	"		0.003	0.050	0.003	1	
						161		"	"	"	"		0.004	0.019	0.003	1	
								"	"	"	"		0.001	0.144	0.003	1	

059

DIAMOND DRILL RECORD

HOLE NUMBER : FED 5

LOGGED BY : A. ROSS

INTERVAL (m)		RECOVERY		DESCRIPTION	FORM.	% Sn.											
FROM	TO	m	%			FROM	TO	TOTAL	ACID SOL.	% Cu.	% As.	% S.	% Pb.	% Zn.	% Bi.	g/t Ag	% WO ₂
178.9	183.3		100	Intensely altered granite (coarse grained granite). Very dark green alteration and minor zones with lighter green alteration. Pale brown patches of clay? throughout. No disseminated pyrite to 182.0m. After 182.0m, rare patches of extremely coarse euhedral pyrite.		164	165	0.01	0.01	0.05	0.10		0.002	0.029	0.004	1	
					165		"	"	"	"			0.002	0.014	0.003	1	
					166		"	"	"	"			0.002	0.020	0.004	1	
					167				0.01	"	"	"		0.004	0.039	0.004	2
					168				0.01	"	"	"		0.002	0.029	0.004	2
					169				"	"	"	"		0.002	0.017	0.004	1
					170				"	"	"	"		0.002	0.029	0.004	1
183.3	201.5	14	100	Grades into very broken zone of light green altered porphyritic coarse grained granite. Major core loss at 188.2m. (FAULT). - associated with very coarse pyrite crystals. Rare quartz vein at 80° to CA plus weak layering in altered granite at 80°. Pyrite/ quartz veins (vugh) occur but are rare, e.g. 185.2m. Last 20cms in altered fine grained granite. Rare pyrite mineralisation - sporadic.		171		"	"	"	"		0.001	0.029	0.004	2	
					172		"		"	"	"	"		0.002	0.019	0.002	1
					173				"	"	"	"		0.001	0.017	0.005	1
					174				"	"	"	"		0.001	0.021	0.004	1
					175				"	"	"	"		0.001	0.029	0.005	1
					176				"	"	"	"		0.003	0.032	0.012	1
					177				"	"	"	"		0.001	0.021	0.004	1
					178				0.01	"	"	"		0.003	0.038	0.039	1
					179				0.03	"	"	"		0.013	0.075	0.110	16
					180				0.08	0.01	"	"		0.007	0.085	0.125	2
					181				0.26	"	"	"		0.001	0.065	0.008	2
					182				0.67	"	"	"		0.003	0.060	0.013	4
					183				0.52	"	"	"		0.003	0.060	0.006	3
					184				0.01	0.01	"	"		0.002	0.020	0.006	1
					185				0.05	0.01	"	"		0.002	0.055	0.005	1
					186				0.02	"	"	"		0.002	0.048	0.003	1
					187				0.01	"	"	"		0.001	0.037	0.003	1
					188				0.02	"	"	"		0.003	0.035	0.004	1
					189				0.01	0.01	"	"		0.055	0.115	0.004	2
					190				"	"	"	"		0.016	0.046	0.006	2
				191				"	"	"	"		0.010	0.130	0.004	1	
				192				"	"	"	"		0.002	0.026	0.004	1	
				193				"	"	"	"		0.003	0.032	0.005	1	
				194				0.01	"	"	"		0.002	0.028	0.004	3	
				195				0.01	"	"	"		0.002	0.025	0.003	2	
				196				"	"	"	"		0.001	0.020	0.004	1	
				197				"	"	"	"		0.001	0.020	0.003	1	
				198				"	"	"	"		0.002	0.021	0.004	1	
				199				"	"	"	"		0.002	0.031	0.003	1	
				200		200.5		"	"	"	"		0.003	0.028	0.003	1	

150060

RENISON LIMITED - DRILL CORE RECORD

080

HOLE NUMBER	FED 6	SURVEY			From - To	Distance D	VERTICAL		HORIZONTAL	
		Depth	Bearing	Dip			D.Sin.Dip	R.L.	D.Cos.Dip	Prog. Total
PURPOSE	TO TEST I.P. ANOMALY AT COLEMANS WORKINGS (ANOMALY)	0	magnetic	-45 3/4	0- 22	22	15.759	398.46	15.351	15.35
		45	291	-47	22-69	47	34.374	364.02	32.054	47.41
LOCATION	COLEMANS WORKINGS. WEST FEDERATION.	93	290 1/2	-47 1/2	69-117	48	35.389	328.70	32.428	79.83
		141	290	-47 1/2	117-163	46	33.779	294.92	31.225	111.06
COLLAR R.L.	414.22	186	288 1/2	-46 1/2	163-186.5	23.5	17.046	277.87	16.176	127.23
CO-ORDINATES	5359011.647mN 349779.292mE									
LENGTH	186.5m									
HOLE SIZE	0 - 33m NQ 33 -186.5m BQ									
DATE DRILLED	2/4/79 to 11.4.79									
SIGNIFICANT CORE LOSS ZONES										
ORE ZONE GROUND CONDITIONS										
LOGGED BY	A. ROSS									
COMMENTS	20m NQ casing left in hole. Tourmalinised, chloritised? pyritised altered coarse grained granite encountered from 20m to 32m. No lode intersected beneath Coleman's workings as expected.									

SUMMARY - ASSAY DATA

LODE NAME	FROM	TO	LENGTH (m)	AVERAGE WEIGHTED ASSAYS												B.C.A.
				Sn.	Acid Sol. Sn.	Cu.	As.	S.	Pb.	Zn.	Bi.	WO ₃	Ag g/t			
	20	32	12	0.19		0.05	0.10									
including	20	24	4	0.43		0.05	0.10									

150061

HOLE No. : FED 6

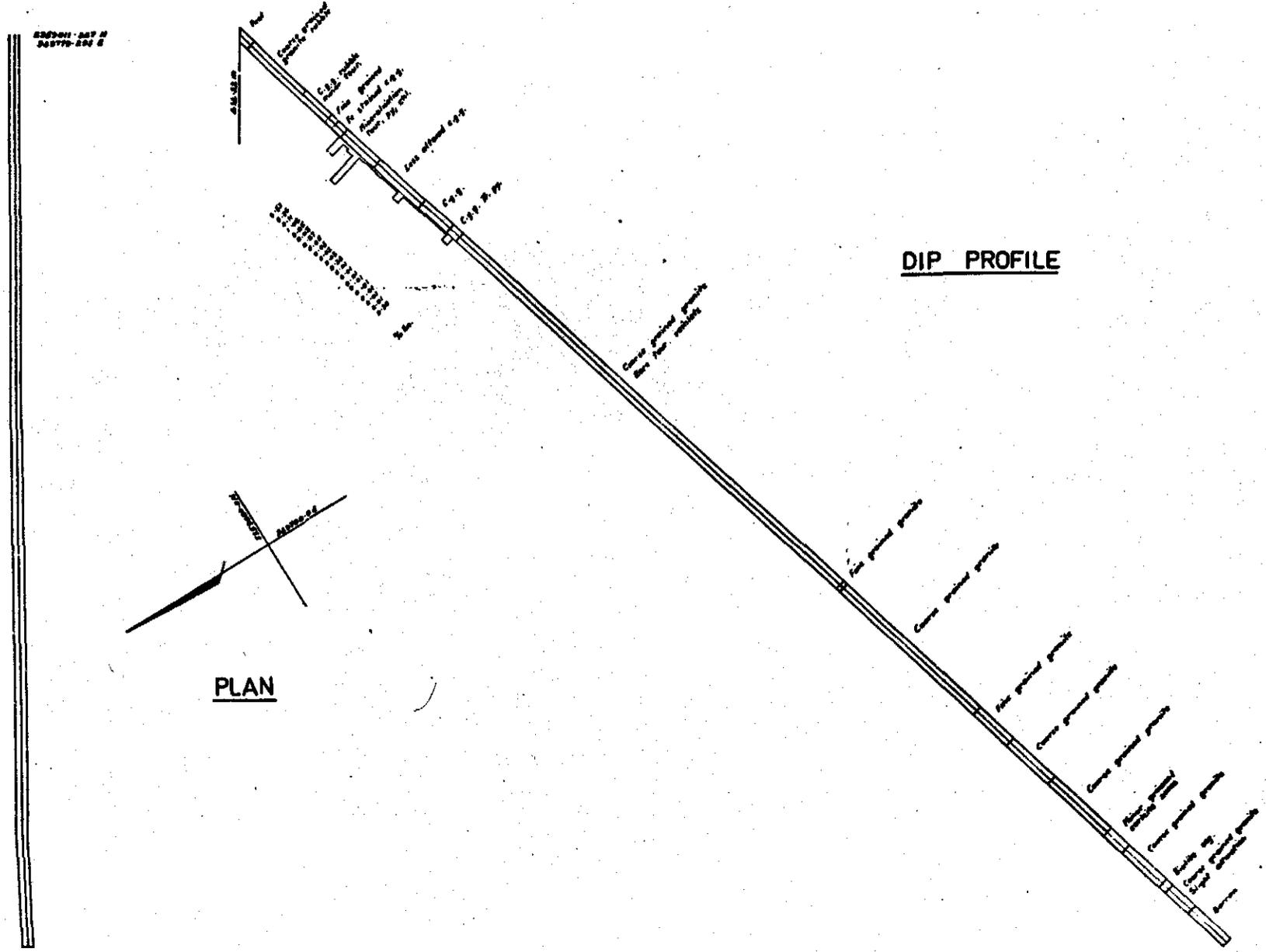
SCALE:



REVISION LIMITED
DIAMOND DRILL HOLE PLOT

5 cm

091



REVISION - 007 11
00770-001 0

PLAN

DIP PROFILE

335907-00
24070-02

150062

062

DIAMOND DRILL RECORD

HOLE NUMBER : FED 6

LOGGED BY : A. ROSS

INTERVAL (m)		RECOVERY		DESCRIPTION	FORM.	% Sn.										
FROM	TO	m	%			FROM	TO	TOTAL	ACID SOL.	% Cu.	% As.	% S.	% Pb.	% Zn.	% Bi.	g/t Ag
0	2	0	-	Feat.												
2	12.0	1	10	Grey-white coarse granite rubble and weathered granite, clay.												
12.0	17.0	2	40	Grey to green coarse grained granite, minor tourmaline, weathered rubble.												
17	18.2	1.2	100	Greenish to grey/white fine grained granite (altered). Tourmaline veinlets, 45° to 50° to CA. Minor fragments coarse grained granite. Clay alteration.												
18.2	20		100	Iron stained, brown, tourmalinised, coarse grained? granite. Rubbly.		20	0.52		0.05	0.10						
						21	0.06		"	"						
						22	0.11		"	"						
20	26.2		100	Massive, fine grained dark green to black, chlorite-tourmaline clay rock? Trace pyrite. Completely altered, replaced granite.		23	1.02		"	"						
						24	0.05		"	"						
						25	0.03		"	"						
26.2	31.0		100	Less altered/replaced. Argillised coarse grained granite with numerous vughs. Colour dark green. Trace pyrite, tourmaline.		26	0.07		"	"						
						27	0.05		"	"						
						28	0.02		"	"						
31.0	34.5		100	Slightly less altered coarse grained granite. White/grey to green. Rare veinlets tourmaline.		29	0.02		"	"						
						30	0.03		"	"						
						31	0.26		"	"						
34.5	35.9		100	Vuggy, coarse grained granite. Fine tourmaline in vughs.		32	0.01		"	"						
						33	0.01		"	"						
35.9	36.5		100	Weakly altered coarse grained granite. Greenish-yellow clayey alteration of feldspars.		34	0.01		"	"						
						35	0.01		"	"						
						36	0.01		"	"						
36.5	39.9		100	Yellow-grey coarse grained to porphyritic granite - yellow alteration of feldspars. Minor tourmaline veinlets.		37	0.01		"	"						
						38	0.01		"	"						
						39	0.01		"	"						
39.9	41.5		100	Greenish altered coarse grained granite with black tourmaline. Trace pyrite.		40	41	0.20	"	"						
41.5	113.6		100	Yellow-grey weakly altered coarse grained granite. Rare tourmaline veinlets 45 - 60° to CA. Veinlets, tourmaline very common between 47.0 and 52.0m. Minor greenish alteration and quartz tourmaline veining from 50.4 to 51.3m. Red feldspars from 53.8 to 54.4m and minor zones further below. Tourmaline veinlets usually 50° to CA. Yellow clay alteration throughout. Fine grained zones 76.85 to 77.0m. At 80m, tourmaline veinlets at 60° to CA. After												

150063

DIAMOND DRILL RECORD

HOLE NUMBER : VZD 6
 LOGGED BY : A. ROSS

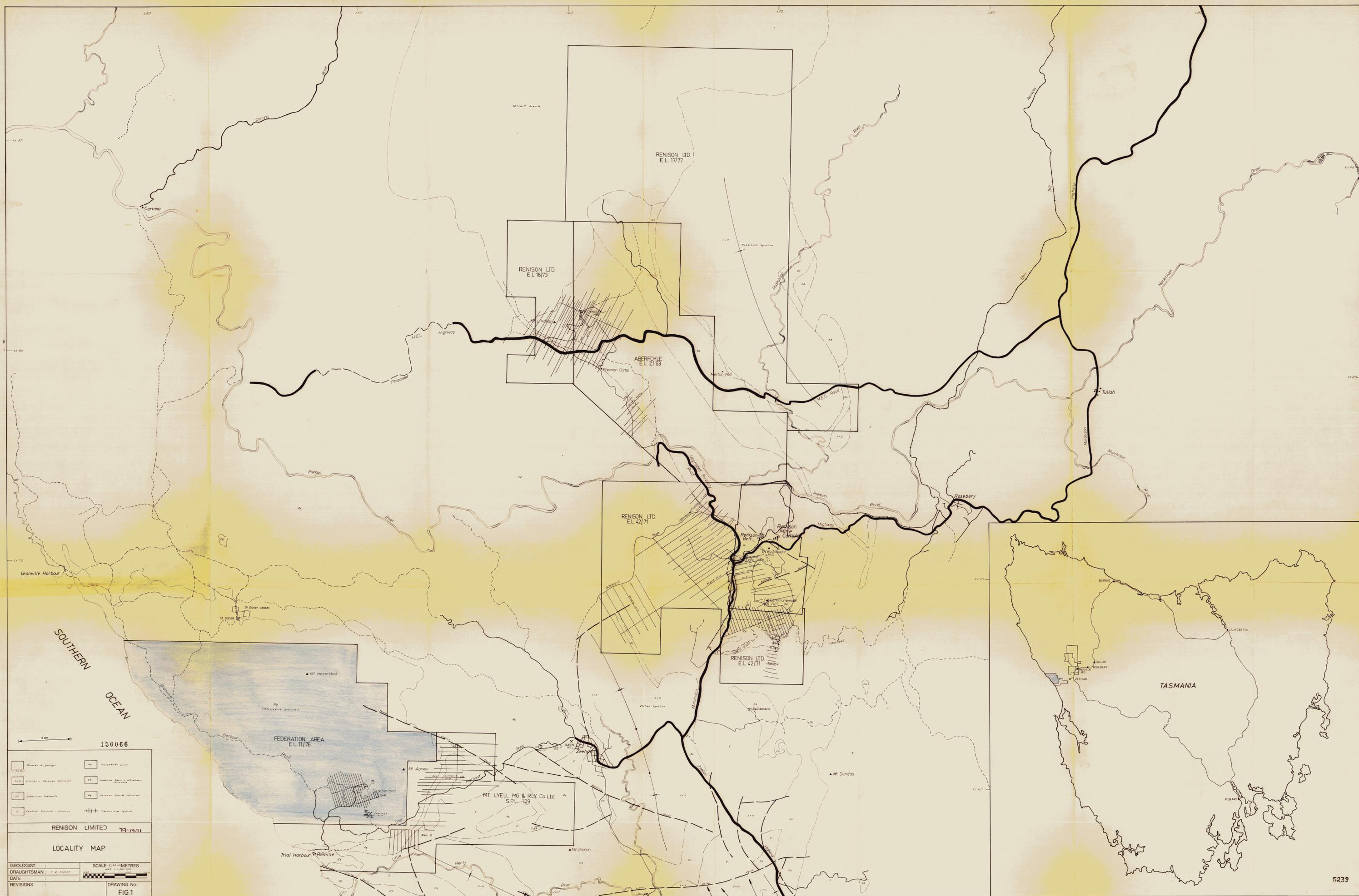
063

INTERVAL (m)		RECOVERY		DESCRIPTION	FORM.	% Sn.										
FROM	TO	m	%			FROM	TO	TOTAL	ACID SOL.	% Cu.	% As.	% S.	% Pb.	% Zn.	% Bi.	g/t Ag
113.6	114.0		100	Fine grained granite zone.												
114.0	119.0		100	Grey to slight pink coarse grained granite with minor yellow clayey alteration. Tourmaline veinlets virtually non-existent.												
119.0	145.2		100	Fine to medium grained grey microgranite. Upper contact 30° to CA and sharp. Minor tourmaline zone near upper contact (within 1.5m). Layering 30° to CA. Lower contact 45° to CA.												
145.2	153.0		100	Medium to coarse grained grey granite. Equigranular white normal porphyritic variety. At 153.0m, minor pegmatite zone over 70-30 cms.												
153.0	163.5		100	Generally coarse grained granite. Grey to slight pink in minor zones. Several fine grey "greissen"/sericite zones, and narrow pegmatite veins.												
163.5	167.0		100	As above, but with several narrow finer grained zones (veins). Minor yellow alteration of feldspar.												
167.0	174.0		100	Medium to coarse grained equigranular granite.												
174.0	175.2		100	Mixed or contaminated fine grained granite zone with crude segregations of biotite.												
175.2	179.5		100	Yellow altered zone of above rock type with odd tourmaline, quartz vein patches. Iron staining. VCA 45°. Below Coleman's West Cut? Tourmaline, sericite.												
179.5	186.5		100	Medium grained grey granite. Equigranular. Barren.												
				END OF HOLE												

150064

APPENDIX 3

PETROGRAPHIC DESCRIPTIONS



150066

[Symbol]	Proposed	[Symbol]	Proposed
[Symbol]	Proposed	[Symbol]	Proposed
[Symbol]	Proposed	[Symbol]	Proposed
[Symbol]	Proposed	[Symbol]	Proposed

RENISON LIMITED 73-1971

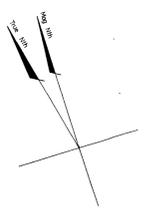
LOCALITY MAP

GEOLOGIST: [Name]
 DRAUGHTSMAN: [Name]
 DATE: [Date]
 REVISIONS: [List]

SCALE: 1:50,000 METRES

DRAWING No. FIG.1

10 500 N
10 420 N
10 360 N
10 300 N
10 240 N
10 180 N



150067

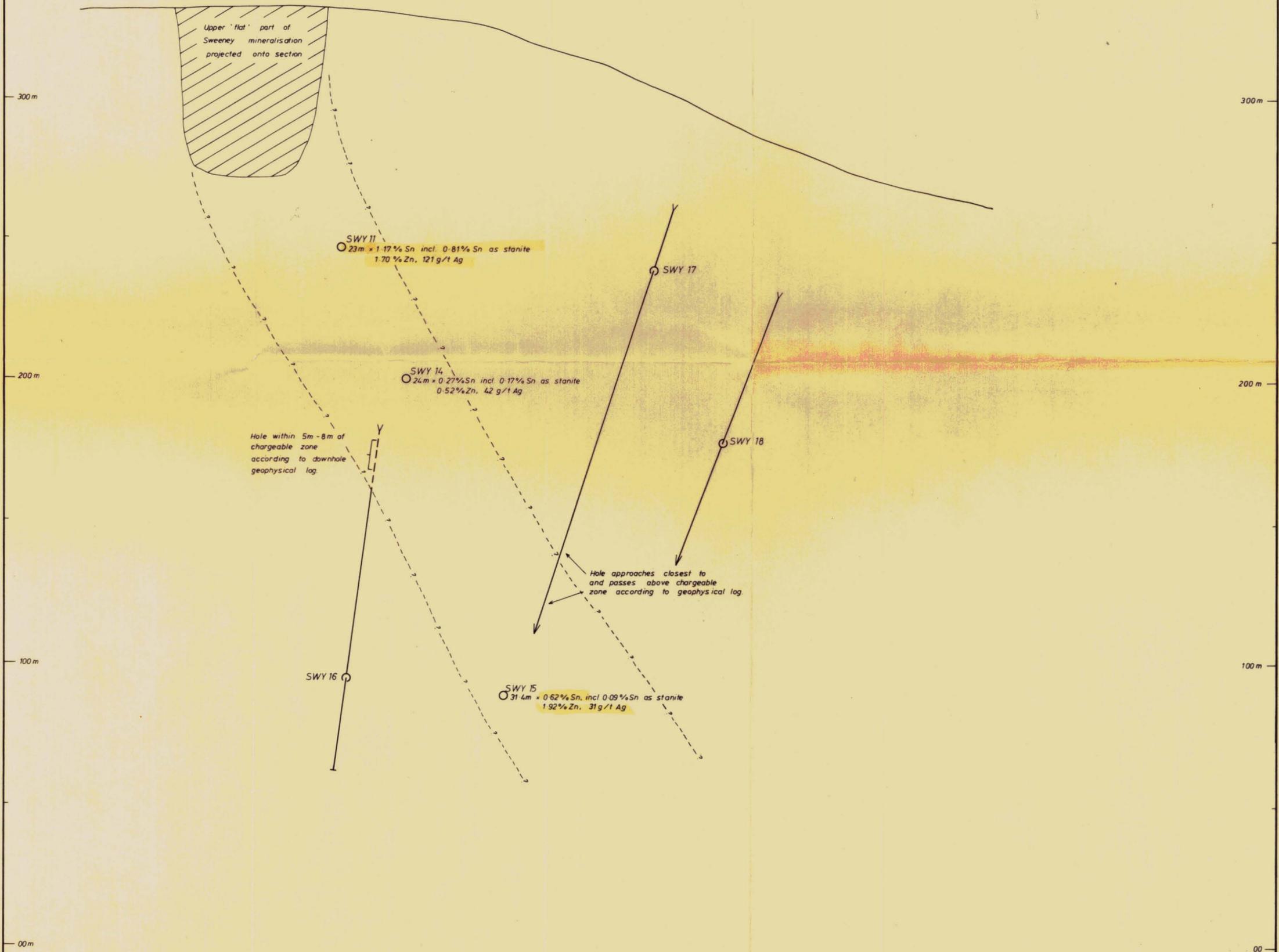
5 cm 1000 E

RENISON LIMITED 79-13-11	
SWEENEY'S MINE	
DRILL HOLE LOCALITY PLAN	
GEOLOGIST K. WELLS	SCALE 1:500 METRES
DRAUGHTSMAN J. MATTHEWS	10 0 10 20
DATE AUG 1977	
REVISIONS	DRAWING NO. Fig. 2A

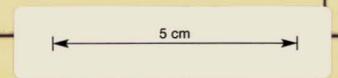
900 E 9100 E 9200 E 9300 E

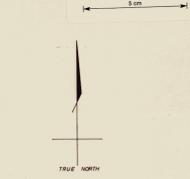
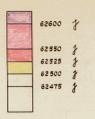
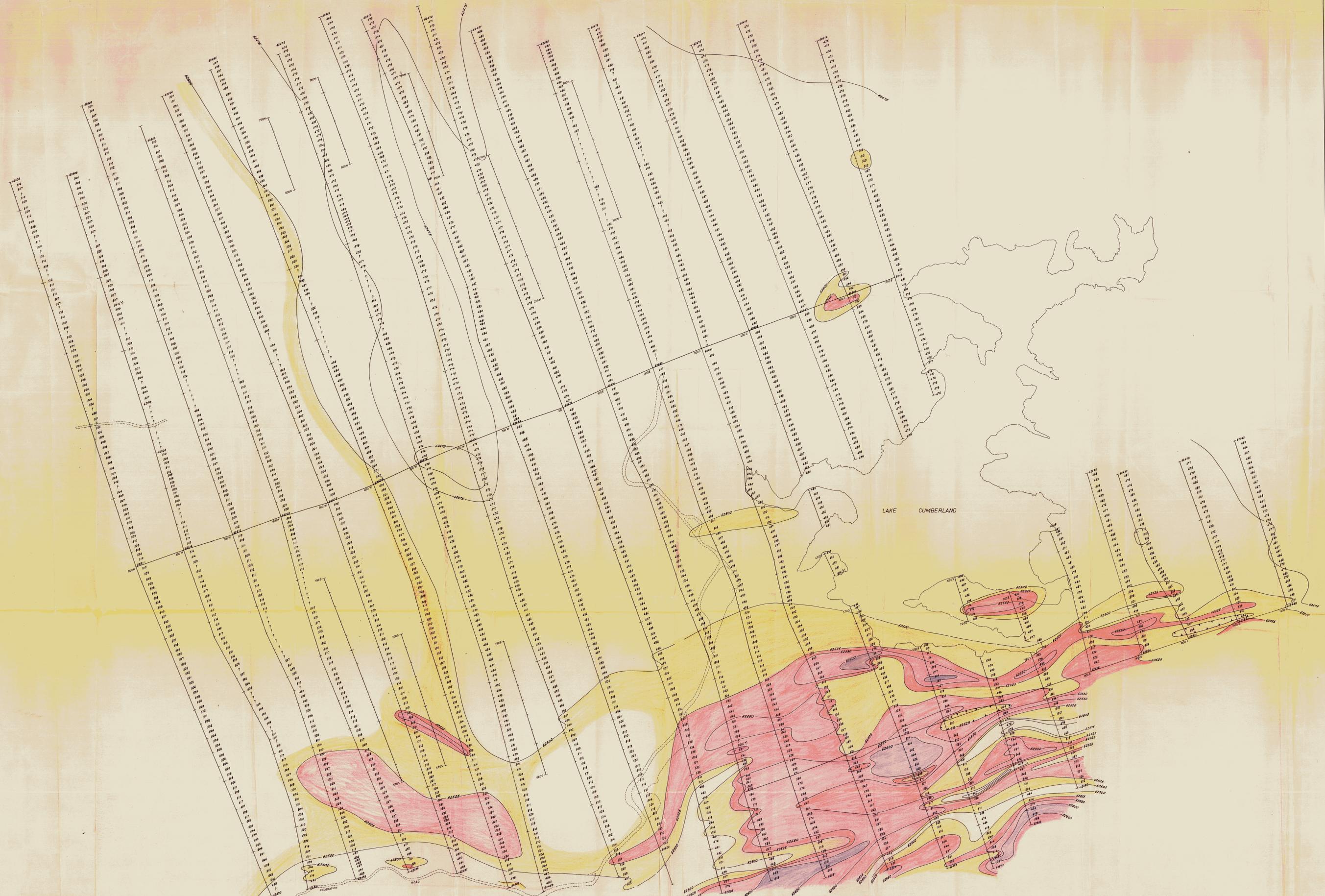
W N W

E S E

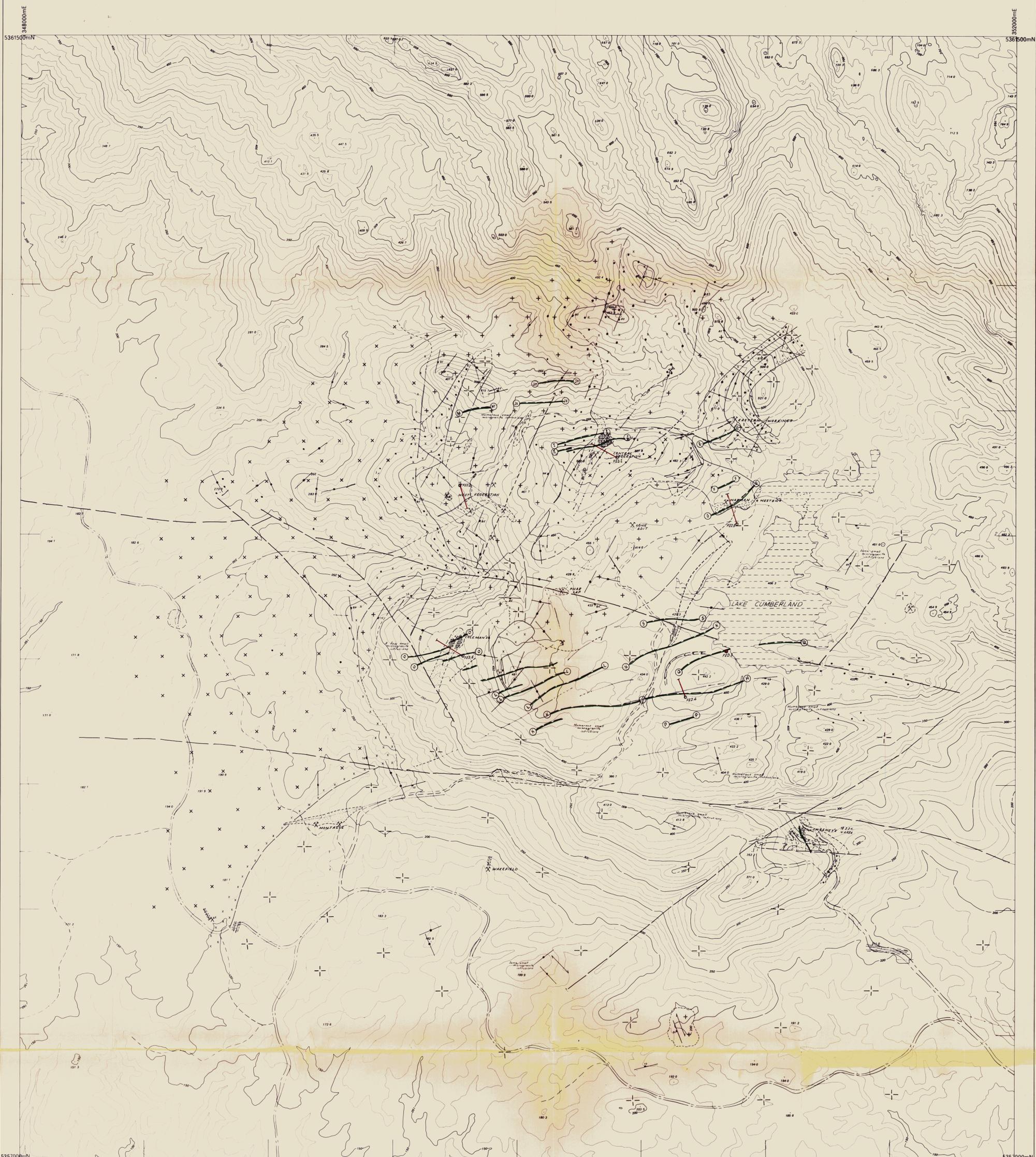


RENISON LIMITED 79-1371	
SWEENEY MINE	
LONGITUDINAL PROJECTION ALONG PRESUMED STRIKE OF LOWER SWEENEY MINERALISATION (APPROXIMATELY 102° MAG)	
GEOLOGIST : K. WELLS	SCALE 1:1000 METRES
DRAUGHTSMAN : J. MATTHEWS	10 0 10 20
DATE : JUNE 1979	
REVISIONS :	DRAWING No. FIG 2B





150069
 RENISON LIMITED '79-1971
 E.L11/76 FEDERATION GRID
 MAGNETICS (TOTAL FIELD)
 GEOLOGIST: R.W.
 DRAUGHTSMAN: J.A.P.S.
 DATE: JULY 1979
 SCALE 1:2000 METRES
 DRAWING No. Fig 3.
 5242 P.P.



348000mE
5361500mN
5357000mN
348000mE

352000mE
5361500mN
5357000mN
352000mE

LEGEND

ALTERATION

- Argillite Alteration
- Quartz and Topaz and/or Tourmaline
- Total fluorination associated with tourmaline
- Hypothermal breccias
- Collapse
- Quartz-mica greisen
- Area of Tourmaline nodules

ROCK TYPES

- Fine grained
- Medium grained
- White younger granite
- Medium grained, usually porphyritic
- Coarse grained
- Red older granite

- Major lineament
- Road with dip
- Road, vertical
- Railway
- Definite biological boundaries
- Approximate biological boundaries
- Inferred biological boundaries
- Old mine or prospect

- Chargeability axis/azimuth and number
- Diamond drill hole

COMPILED NOTE

The sheet is a composite of photo-grammetric contours superimposed on a half tone reproduction of compiled orthophoto from aerial photography dated 12/77.

Orthophoto base mapping and photogrammetric contours by Australian Aerial Mapping Pty Ltd
Aerial photography Wild RC8
Aerial triangulation Wild AB
Contouring Wild GB
Orthophoto: Zetis Topocart

REFERENCE

- Contours
- Depressions
- Spot Heights
- Control
- N.B. Broken lines indicate lower reliability
- Contour interval 10 metres
- Spot heights to 0.5 metres
- Reduced levels to Australian Height Datum
- Coordinates Australian Map Grid
- Grid interval 500 metres

SHEET LOCATION



150070
5cm

RENISON LIMITED 719-12371

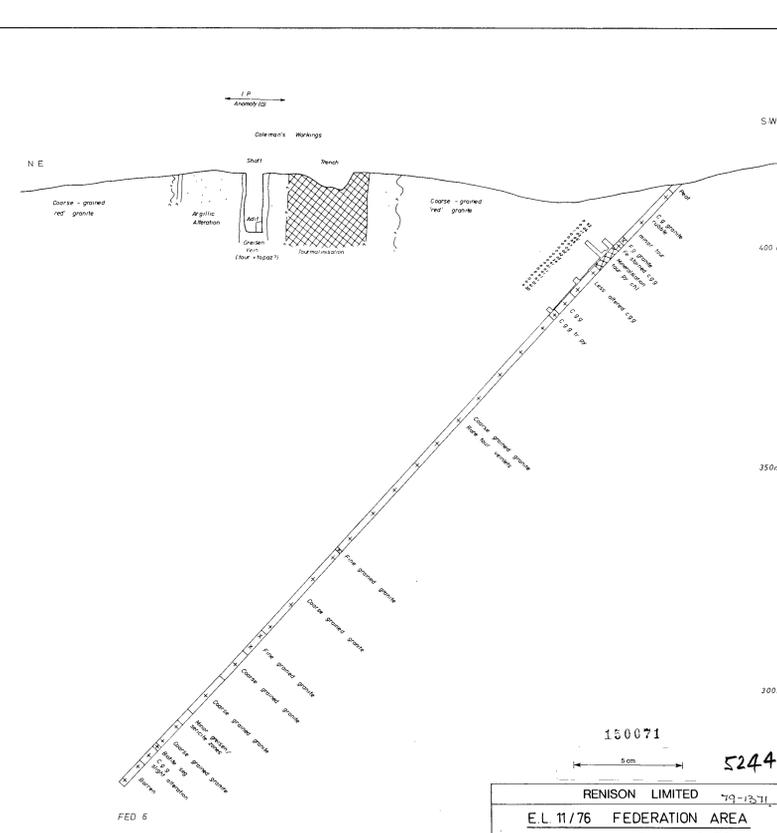
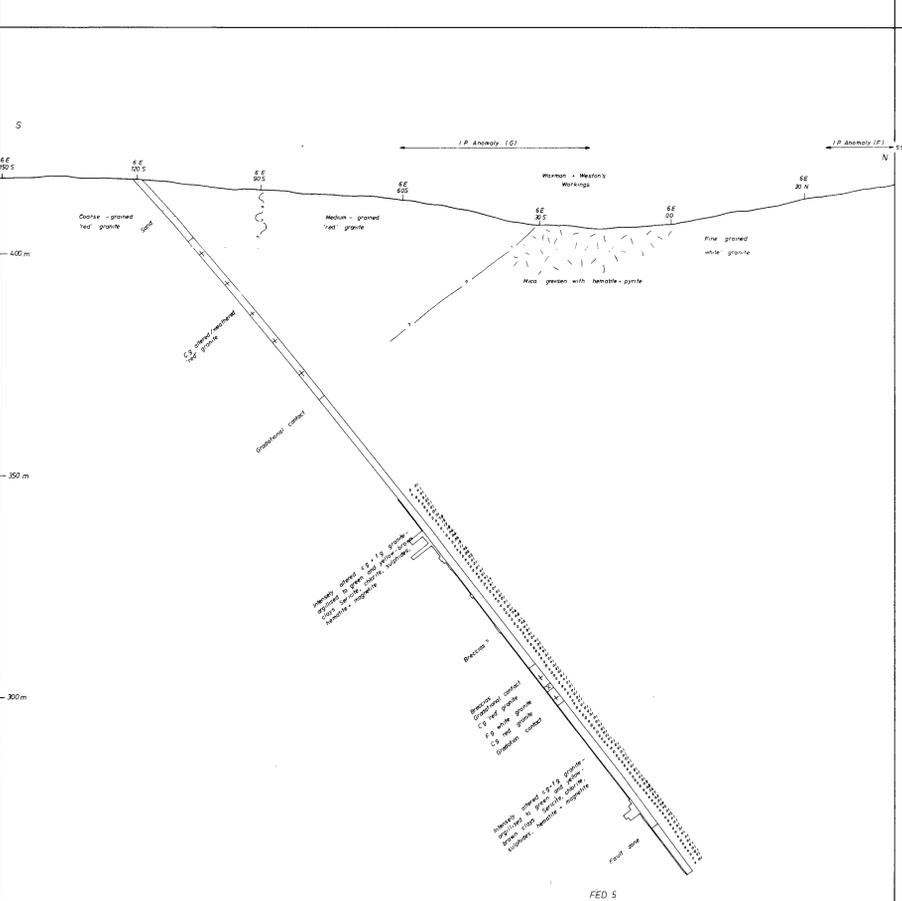
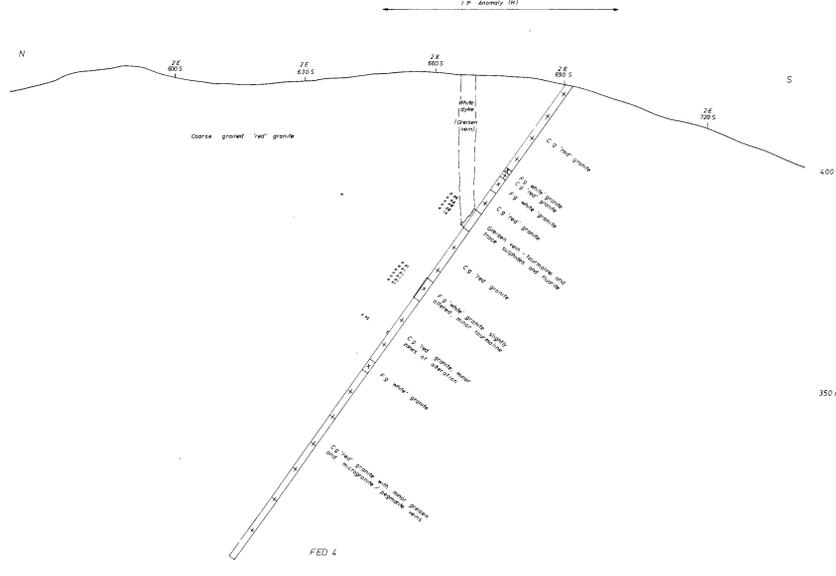
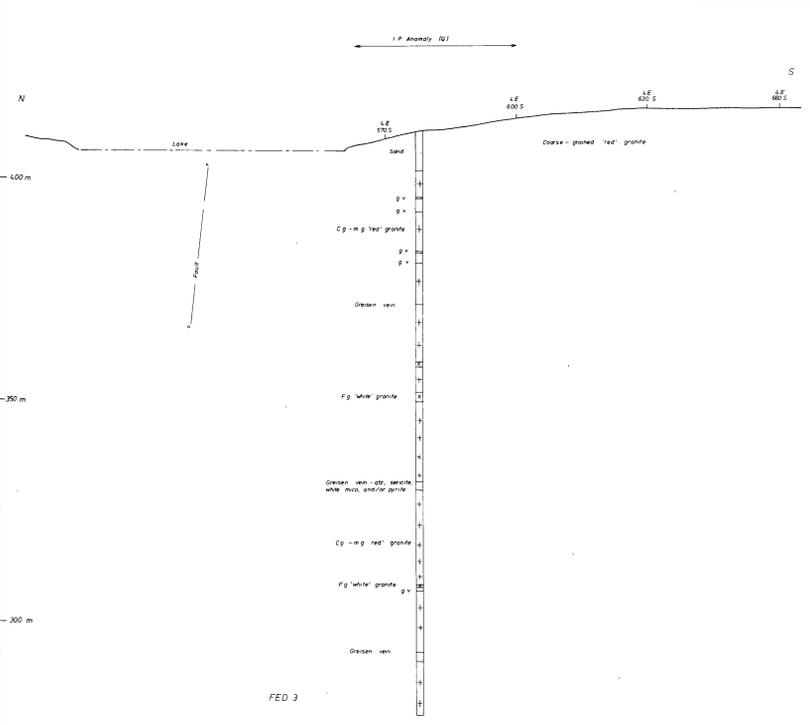
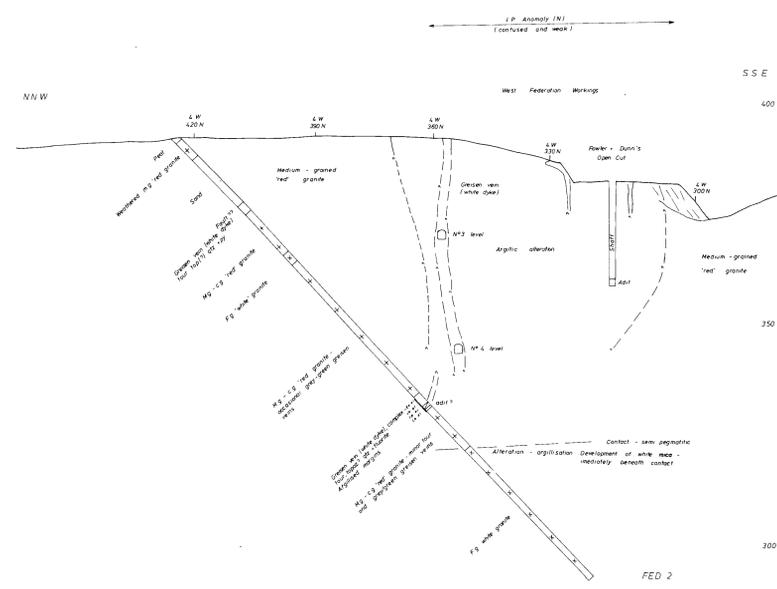
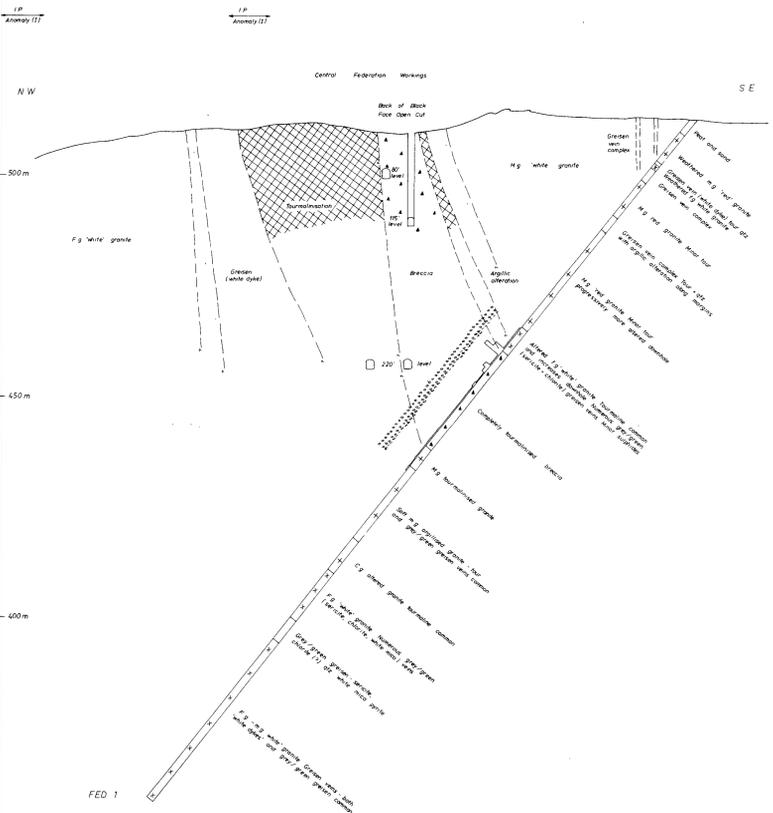
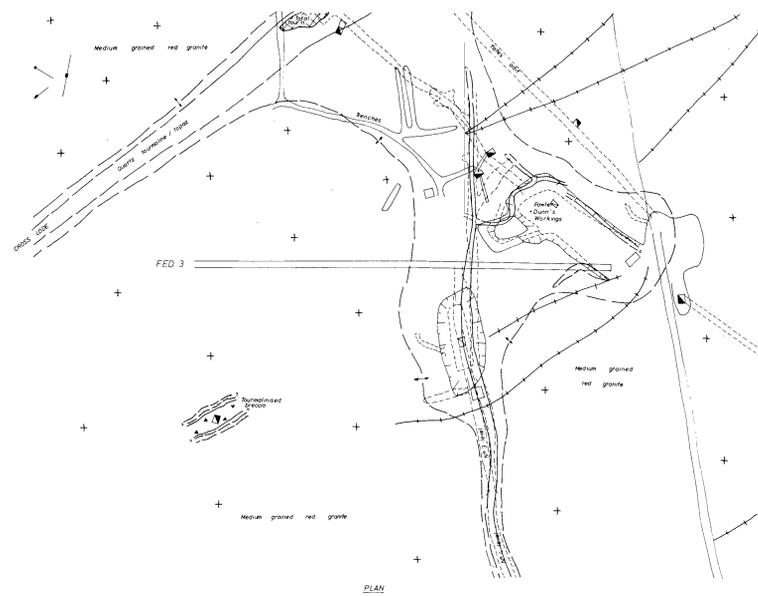
HEEMSKIRK AREA

GEOLOGICAL INTERPRETATION

GEOLOGIST: K. Waller
DRAUGHTSMAN: P. Colson
DATE: June 1979

SCALE 1:5000 METRES

DRAWING NO. Fig. 4

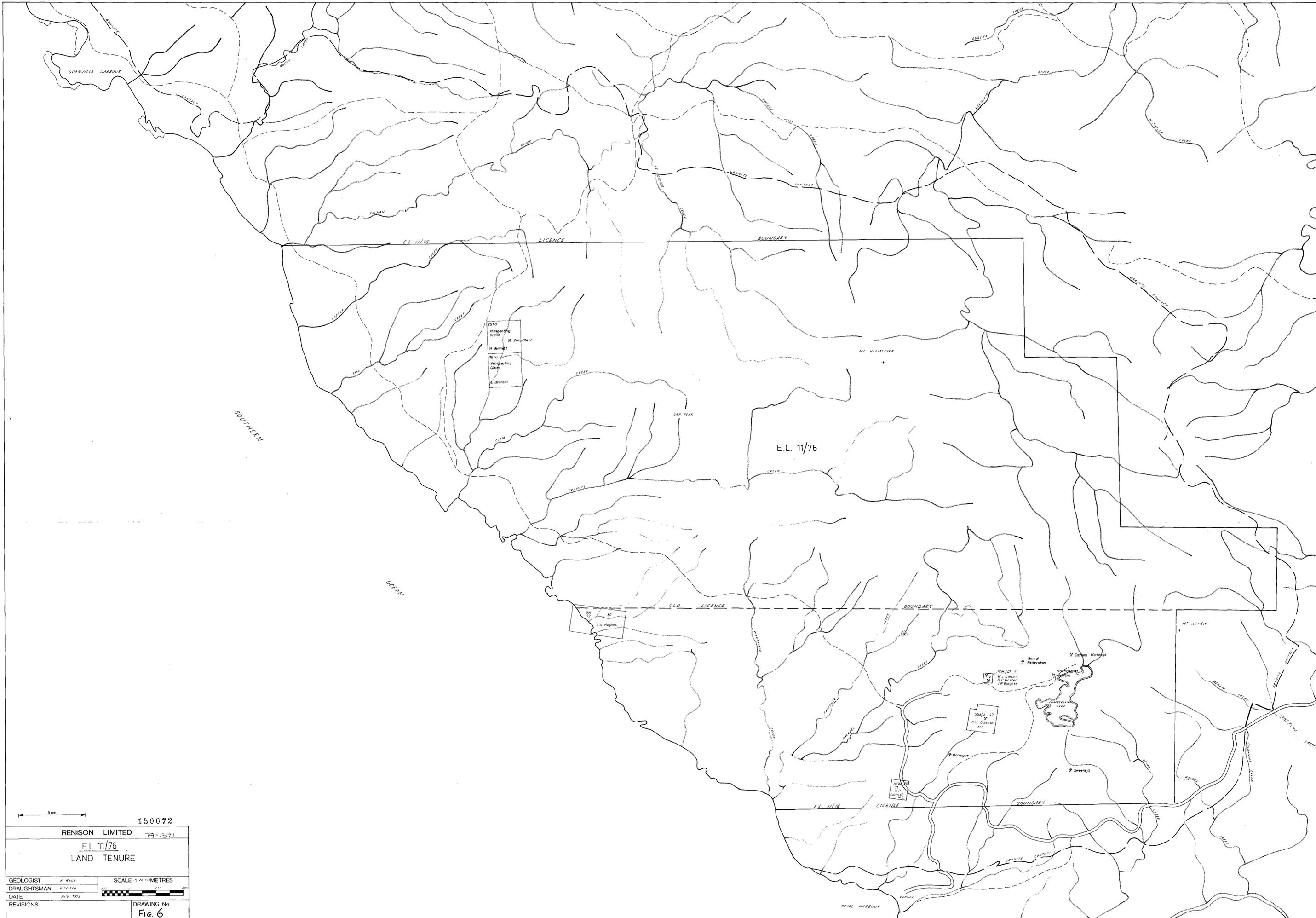


150071
5244

RENISON LIMITED
E.L. 11/76 FEDERATION AREA
DIAMOND DRILL HOLES
COMPLETED 1978-79

GEOLOGIST : K. WELLS	SCALE: 1:500 METRES
DRAUGHTSMAN : J. MATTHEWS	
DATE : JULY 1979	
REVISIONS :	

DRAWING No.
Fig 5



50m

150072

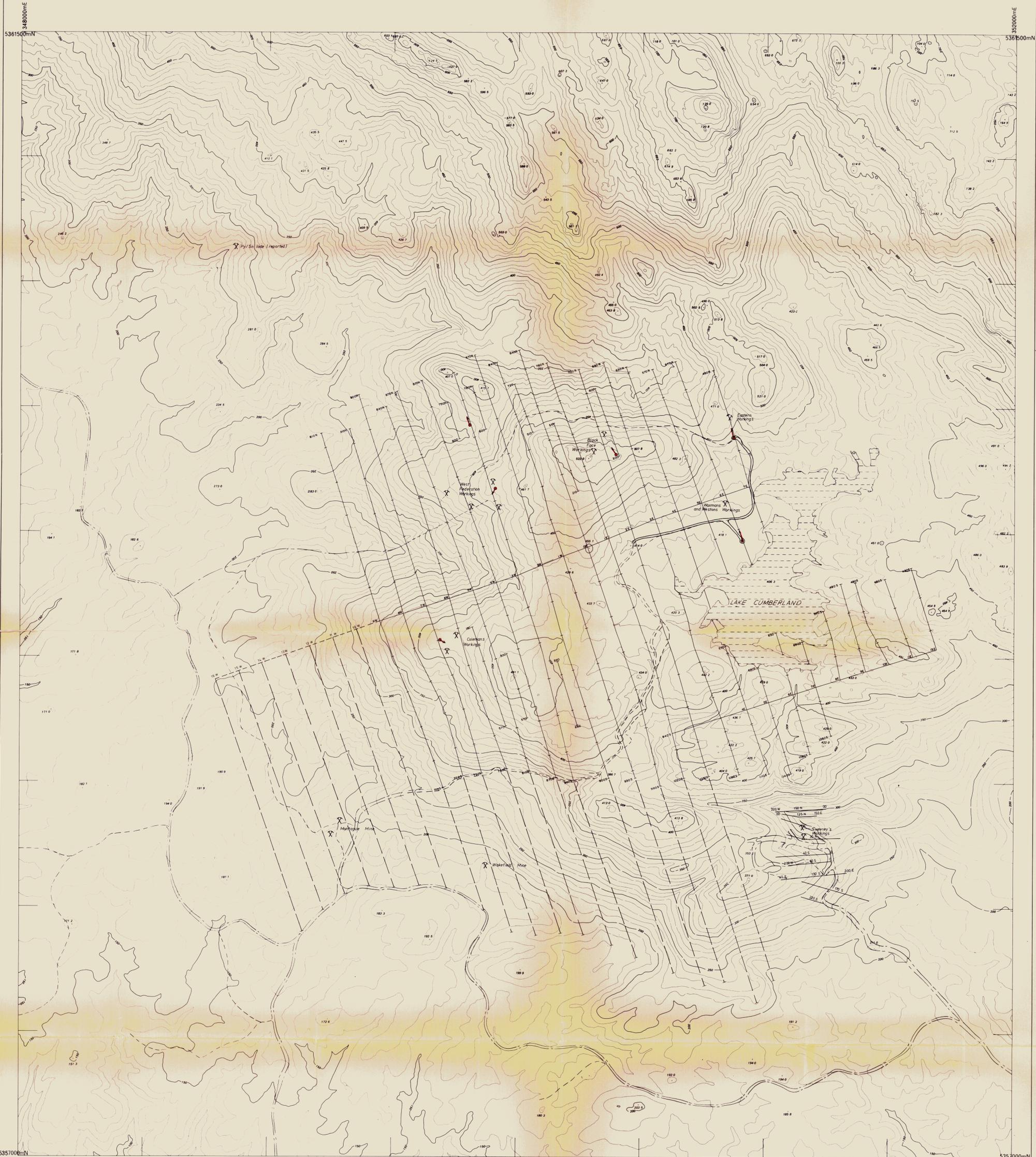
RENISON LIMITED 79-1371

E.L. 11/76
LAND TENURE

GEOLOGIST K. Wells
DRAUGHTSMAN F. Colson
DATE July 1979
REVISIONS

SCALE 1:20,000 METRES

DRAWING No
Fig. 6



LEGEND

- X Old workings / prospects
- Proposed drill holes
- Proposed road construction
- Proposed grid lines



150073



COMPILED NOTE

This sheet is a composite of photogrammetric contours superimposed on a half tone reproduction of compiled orthophotos from aerial photography dated 12/77.
 Orthophoto base mapping and photogrammetric contours by Austrial Aerial Mapping Pty Ltd
 Aerial photography Wild RC8
 Aerial triangulation Wild AG
 Contouring Wild BS
 Orthophotos Zags Topocart

REFERENCE

- Contours
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- Spot Heights
- Control
- N.B Broken lines indicate lower reliability
- Contour interval 10 metres
- Spot heights to 0.5 metres
- Reduced levels to Australian Height Datum
- Coordinates Australian Map Grid
- Grid interval 500 metres

SHEET LOCATION



REINSON LIMITED 49-1371

HEEMSKIRK AREA

FEDERATION AND SWEENEY GRIDS
WORK PROPOSED FOR 1979-80

GEOLOGIST	J. Matthews	SCALE 1:6000 METRES
DRAWN BY	J. Matthews	100 0 100 200
DATE	June 1979	
REVISIONS		

DRAWING NO. FIG. 7