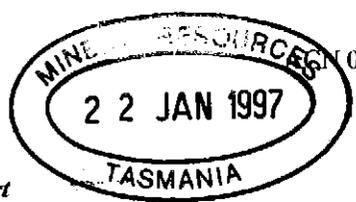
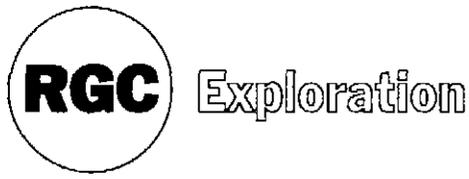


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Annual Report
Jan. 1996 - Jan1997

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Tasmanian Basemetals Project

E.L. 32/94

Gowrie Park

Vol 1 of 1

EL32/94
22 JAN 1997
See file EL32/94 PT1
folio 55

HELD BY: Renison Limited

MANAGER & OPERATOR: RGC Exploration Pty Ltd

OPEN FILE

AUTHOR(s):
D. Gregory

15 January, 1997

PROSPECTS: Gowrie Park

MAP SHEETS: 1:25,000: Cethana 1:100,000: Forth

GEOGRAPHIC COORDS Min East: 432 000 mE Max East: 438 000 mE
Min North: 5 406 000 mN Max North: 5 409 000 mN

COMMODITY(s): Cu, Pb, Zn, Ag, Au

KEY WORDS: Massive sulphide, geochemistry, geophysics, alteration

Distribution:

- o RGC Exploration Information Centre Reference:
- o RGC Exploration Office - Zeehan
- o Tasmanian Department of Mines

SUMMARY

Exploration this period has focussed on identification of the seafloor position of the known stringer mineralisation defined by CRA exploration. A number of exploration techniques have been applied and have been unsuccessful in detecting near surface massive sulphides. Soil surveys aimed at better defining the CRA soil anomaly were unsuccessful due to the extent of the scree cover.

RC drilling intersected the andesite - rhyolite contact north of the known stringer mineralisation. Base metal assays were low, however the alteration appears to increase from west to east and is confined to the rhyolites, confirming the asymmetry of the sericite - pyrite alteration.

Self Potential and Gradient Array IP surveys failed to delineate targets. SP anomalies were a result of thick scree cover and topographic effects. Elevated IP readings occurred at the southern end of the grid closer than the recommended distance from the current electrode and cannot be quantitatively interpreted. No targets near the andesite - rhyolite contact were identified.

From current exploration it is concluded that no massive sulphide mineralisation occurs at Gowrie Park, at least to a depth of 200m below the surface.

Future exploration should now focus on mineralisation hidden from previous exploration techniques, such as, the rhyolite - andesite contact at depth and the base of and beneath Mt Claude.

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1. INTRODUCTION

EL 32/94 - Gowrie Park is held by Renison Limited and is explored by RGC Exploration, both wholly owned subsidiaries of RGC Limited. The licence is located in northern Tasmania approximately 34 km south of Devonport, and is situated on the northwestern slopes of Mount Roland, Mount Van Dyke and Mount Claude (Fig.1). It was granted on January 13, 1995 and covers an area of 18 sq km.

Gowrie Park is a disused Hydro Electric Commission village and is approximately 10 km southwest of Sheffield, the nearest major township. The major access to the EL from Sheffield is via Claude Road.

The topography of the EL is dominated by the steep northern and western slopes of Mount Claude, Van Dyke and Roland. These form an elevated ridge that defines the southern and eastern boundaries to the EL. The Dasher River flows in a broad valley in the northwest corner of the lease and O'Neills Creek forms a major drainage in the gully between Mount Roland and Mount Claude.

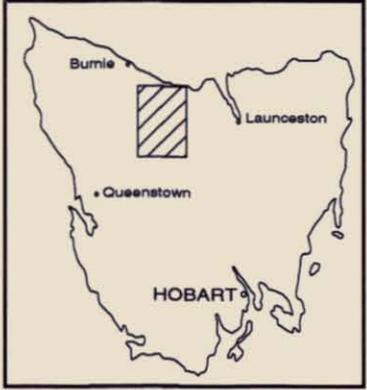
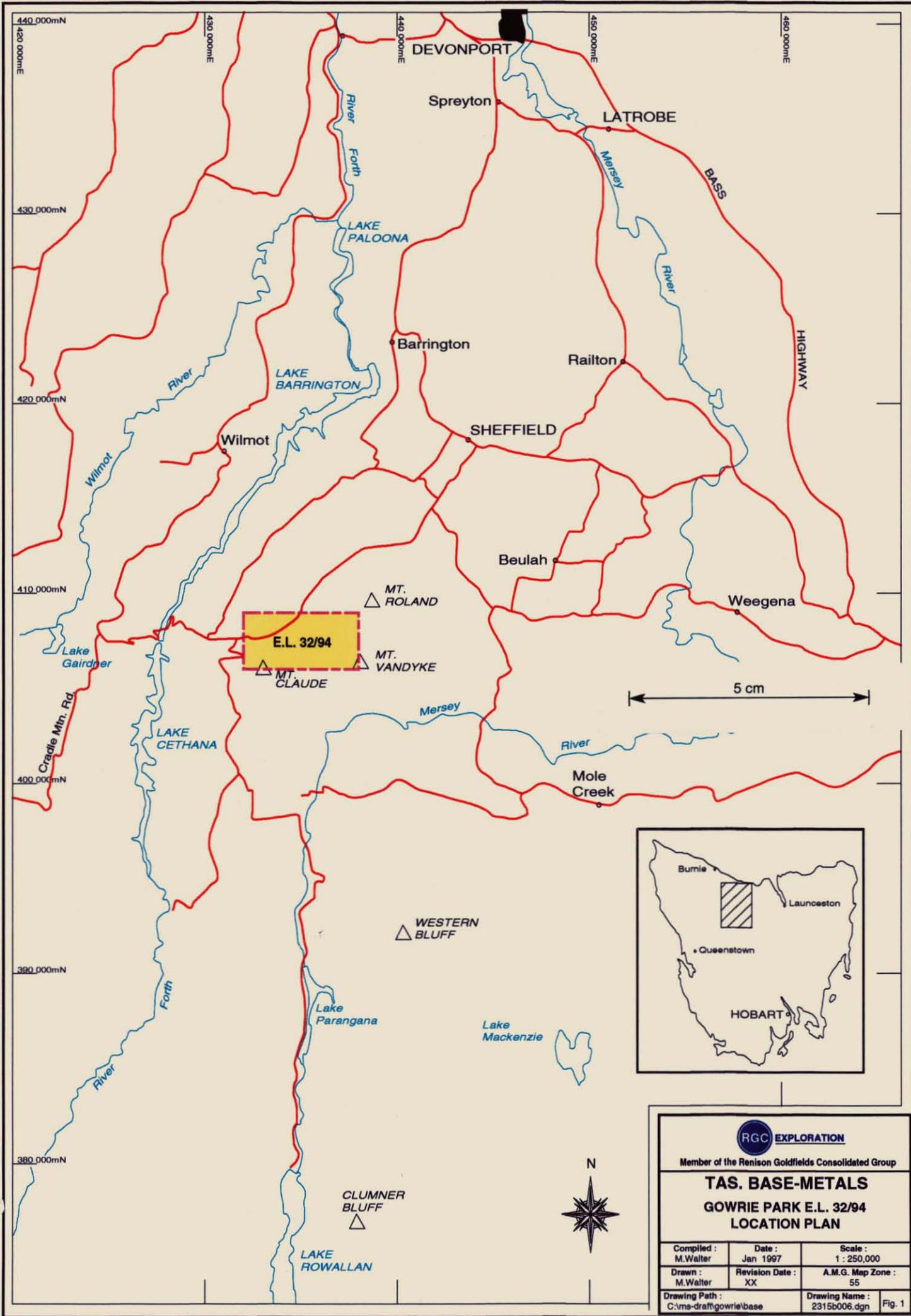
The vegetation consists predominantly of medium eucalypt forest and light tea tree scrub with some patches of rainforest. The more fertile soils of the Dasher Valley have been cleared and support farming activities.

The area was acquired for its potential to host Rosebery style Cu-Pb-Zn-Ag mineralisation.

2. TENURE

The EL comprises:

- Private Property
- Crown Land (Deferred Forest Land)
- Crown Land
- Land Vested in HEC.



RGCEXPLORATION
Member of the Renison Goldfields Consolidated Group

TAS. BASE-METALS
GOWRIE PARK E.L. 32/94
LOCATION PLAN

Compiled : M. Walter	Date : Jan 1997	Scale : 1 : 250,000
Drawn : M. Walter	Revision Date : XX	A.M.G. Map Zone : 55
Drawing Path : C:\ms-draft\gowrie\base		Drawing Name : 2315b006.dgn

Fig. 1

3. PREVIOUS EXPLORATION

3.1 INTRODUCTION

Gowrie Park consists of a sequence of Cambrian andesitic - rhyolitic lavas and volcanoclastics of the Mt Read Volcanic Belt. It has been explored since 1973 for VHMS mineralisation. Within Gowrie park a sericite alteration zone with a coincident poorly defined Pb - Zn soil anomaly within rhyolitic volcanics has been the focus for much of the previous exploration. The previous exploration history of EL 32/94 prior to 1995 has been summarised by Halley & Vicary (1996).

3.2 RGC EXPLORATION JANUARY 1995 - JANUARY 1996

Exploration during this period consisted of a literature review of previous exploration, relogging of old diamond drill holes, the establishment of a 37 line km grid which was subsequently mapped, rock chip sampled, soil sampled and covered with ground magnetics. Previous exploration by CRA defined a zone of galena - sphalerite stockworking near the western EL boundary. RGC Exploration aims were to locate the seafloor position during the time sub-seafloor lead - zinc stockwork mineralisation was occurring.

Mapping divided the geology into three parts, a rhyolitic dominated sequence at the western end, an andesitic dominated sequence at the north-eastern end, and a mixed volcanoclastic sequence in between (plan 1).

The rhyolites are massive quartz - feldspar phyric lavas and associated breccias with minor volcanoclastics, they are weakly sericitised and the feldspar phenocrysts have been replaced by pale green sericite. A unusual coarse grained equigranular quartz - feldspar rhyolite intrusive occurs within the sequence.

In the middle and eastern parts of the grid fine grained, aphyric chloritic rocks occur within the rhyolite sequence and are interpreted to represent dacitic volcanoclastics.

At the eastern end of the grid the rhyolites are overlain by a package of fine to coarse grained quartz phyric volcanic sandstones. The coarser facies was noted to include rounded Precambrian quartzite clasts and have a strong resemblance to the upper Tyndall Group.

Two zones of quartzite were recognised at the eastern end of the grid and thought to resemble Precambrian quartzites.

The andesites occur at the eastern end of the grid and lithologies recognised include conglomerates, sandy volcanoclastics and coherent lavas. The

andesites are very similar to the Beulah Formation in terms of chemistry and facies associations.

In the south-eastern part of the grid is a mixed zone of andesitic and rhyolitic lithologies.

Because of the lack of bedded sediments in the grid area the facing direction is not known.

Moderate to strong sericite alteration occurs over the tested CRA anomalies at the western end of the grid. Weaker patchy sericite alteration is more or less continuous around the southern edge of the andesites at the base of *Mount Van Dyke*. Although not a zone of strong alteration the asymmetrical alteration occurs at the andesite - rhyolite contact and this distinct change in volcanism may represent the sea floor position at the time the base metal stockwork mineralisation was occurring.

Soil samples and rock chips were collected over the grid in areas that were not covered by thick scree. The samples were analysed for base metals and a suite of other elements by Neutron Activation methods. The NAA results are useful as a guide to mapping lithological boundaries in areas of poor outcrop. Base metal analysis better defined the known CRA soil anomaly to the north and also picked up a small anomaly on the south end of line 435600mE. A program of infill soil sampling over this area failed to detect any anomalism.

A ground magnetic survey illustrated the pronounced change in geology from east to west, from andesitic to rhyolitic volcanics. The boundary between the two magnetic units is marked by a major north-west trending trough which may be the northern extension of the fault that offsets the Roland Conglomerate between Mt Van Dyke and Mt Roland. The magnetic survey also illustrated the extent of the andesite to the west at the northern end of the grid under cover.

Based on the lead and zinc geochemistry and corresponding moderate sericite alteration within the rhyolites near the andesite contact, it was recommended that a series of short drill holes be drilled to test the along strike potential of a possible sea-floor position, and that each hole should be subsequently tested by DHEM.

4. WORK COMPLETED

In the period January 1996 - January 1997 the work completed in EL 32/94 - Gowrie Park includes the following:-

- 1) 68 soil samples
- 2) 6 short RC drillholes
- 3) Self Potential survey
- 4) 3.4 km of infill gridlines cut
- 5) Infill Self Potential survey
- 6) Gradient Array IP survey
- 7) VLF-EM survey

5. RESULTS

5.1 SOIL GEOCHEMISTRY

During the exploration period two individual soil surveys were conducted. The aim of both programs was to better define the CRA soil anomaly at the northern end of the grid under cover.

The first soil program was designed to test the strike extension of anomalous soils at the northern extension of grid line 3200E over the andesite-rhyolite contact and to re-sample anomalous soils. The initial aim was to sample the northern extensions of lines 2600E, 3000E, 3400E with a hand held motorised auger. Due to the thick unconsolidated scree cover only 22 samples including 3 re-samples could be attained from line 3400E (Plan 2). Some B and C horizon samples were taken to get an understanding of the variations of metal concentrations throughout the profile. Re-sampling confirmed the high base metal values seen at the northern end of grid line 3200E, on inspection of the site it is apparent that a subsurface drainage channel exists and the anomalies may be transported. Samples on line 3400E close to the rhyolite - andesite contact were analysed by AAS method for Cu, Pb and ZN. Base metals concentrations were generally low, three samples were weakly anomalous, results are tabulated in appendix 1.

The second soil program was designed to test those scree covered soils on lines 2600E, 3000E, 3400E which the mechanical auger could not sample during the first programme. The aim was to try and detect anomalies in scree covered terrain by using a weak acid digest to detect mobile metal ions. It is known that mobile metal ions over a direct primary mineralised source will move vertically up through the scree profile by a process of capillary and gaseous transport weakly bonding to soil particles. The soil fraction from

scree will have a much weaker anomaly than primary soils as only minor metal ions will have moved up the profile and will be held by much weaker chemical bonds. By digesting both scree samples and known anomalous soil samples with a weak acid, only weakly bound metal ions will break free and both samples should be comparable. Thirty five samples were collected using -80 mesh sieve including two re-samples from anomalous primary soils and analysed with a weak acid digest of 0.5 molar HCL/HNO₃. Results are tabulated in table 1. See Plan 2 for sample locations.

Table1. Gowrie Park Mobile Metal Ion Assays

GRID NORTH	GRID EAST	Cu ppm	Pb ppm	Zn ppm
7250	2600	0.09	0.94	3.59
7275	2600	0.12	0.42	3.93
7300	2600	0.07	0.52	3.04
7325	2600	0.06	0.27	1.38
7350	2600	0.07	0.59	3.08
7375	2600	0.05	0.52	3.07
7400	2600	0.08	0.51	3.48
7425	2600	0.11	0.57	2.36
7450	2600	0.08	1.18	3.14
7475	2600	0.05	0.93	3.07
7500	2600	0.14	0.64	3.62
7525	2600	0.12	1.04	3.61
7550	2600	0.07	0.34	1.85
7575	2600	0.09	0.87	4.48
7600	2600	0.07	0.48	3.10
7625	2600	0.10	1.05	3.88
7650	2600	0.23	0.67	3.74
7450	3000	0.07	0.92	2.60
7475	3000	0.08	1.39	2.23
7500	3000	0.08	0.35	2.39
7525	3000	0.14	2.73	4.18
7550	3000	0.12	0.37	2.34
7575	3000	0.06	0.36	2.14
7600	3000	0.10	0.36	2.85
7625	3000	0.12	0.74	3.53
7650	3000	0.10	0.70	3.26
7675	3000	0.17	0.71	3.24
7700	3000	0.34	0.67	4.82
7425	3400	0.05	0.68	3.72
7450	3400	0.13	0.36	2.99
7475	3400	<0.05	0.76	1.88
7500	3400	0.08	1.19	3.09

7525	3400	0.08	0.63	2.69
PRIMARY	SOILS	Cu	Pb	Zn
7625	3200	38.00	365.00	1471.00
7650	3200	68.00	596.00	1220.00
MMI	REPEATS			
7625	3200	1.05	29.10	107.00
7650	3200	8.26	8.26	85.60

7.

By using the weak acid digest the primary soils have a much weaker geochemical signature than when assayed by normal AAS methods. From the above results it is apparent that the scree covered soils do not have base metal contents comparable to the anomalous repeats, suggesting that no base metal mineralisation occurs beneath scree covered samples. However, the method was developed in arid environments with extensive regolith profiles, its true value in cool temperate environments such as Tasmania is not well understood. The sensitivity of mobile metal ions to acid types and quantities within the digest will undoubtedly have an effect on the results. Digests developed for arid environments may not be applicable in other environments. To test this technique ideally you need to compare scree samples of unknown mineralisation with scree samples that directly overlie primary mineralisation. These features and insufficient sample data render this survey inconclusive.

Eleven soil samples collected in the 1995-96 over the VLF-EM anomaly at the base of Mt Claude were submitted and analysed by AAS for Cu, Pb, Zn, Ag, and fire assayed for Au. Results were insignificant and are tabulated in appendix 1.

5.2 RC DRILLING

The aim of RC drilling at Gowrie Park was to locate the rhyolite-andesite contact under thick scree deposits north of the known base metal stringer mineralisation. Previous soil sampling has shown the rhyolite to be anomalous in lead and zinc close to the contact. The rhyolite is sericite altered and the andesite is unaltered. The distinct break in style of volcanism and asymmetry of the alteration suggests there was a time break prior to deposition of the andesites. The contact may therefore represent the sea-floor position when the basemetal stockwork mineralisation was active, and may be a loci for massive sulphides.

The position of the contact was interpreted from groundmagnetics to be striking east-west and dipping steeply to the north. The initial program consisted of two drill fences with three shallow holes on each, mostly angled 60° towards the south with the idea that at least one of the three holes on

each of the fences would intersect the contact. The drilling was conducted on existing tracks in the north-western portion of the grid.

Six holes for a total of 389 meters were drilled at Gowrie Park (Fig2). On the western most fence neither holes GPRC 5 and GPRC 6 intersected the contact. A new hole GPRC 7 was planned 5m to the south of GPRC 6 and angled to the south and successfully intersected the contact. GPRC 8 was planned 15m north of GPRC 7 and angled to the south allowing a determination of the dip of the contact which was 80deg to the north (Fig3). Of the two holes on the eastern most fence, GPRC 1 intersected the contact (Fig. 4). There is still no evidence of facing, however our conceptual model proposes facing to the north.

On the western drill fence Roland Conglomerate scree cover varies from 9 - 14m . The poorly sorted unconsolidated scree cover caused significant drilling problems and had to be cased off to allow penetration below the cover. *Saprolite profiles are irregular and commonly extend 10 - 20m below the surface or scree cover.*

In drill chips the andesites are characteristically dark greenish grey to olive green in colour. It is difficult to determine the difference between lavas and volcanoclastics due to the fine grained nature of both. The lavas are fine grained with an aphanitic groundmass and contain minor feldspar phenocrysts to 2mm. Ferromagnesium phases are not often observed and most likely make up a majority of the groundmass. The volcanoclastics are fine grained well sorted volcanoclastic sandstones with a globular appearance defined by broken often albitized feldspar phenocrysts. Minor epidote-quartz-carbonate-chlorite veining occurs within the andesites.

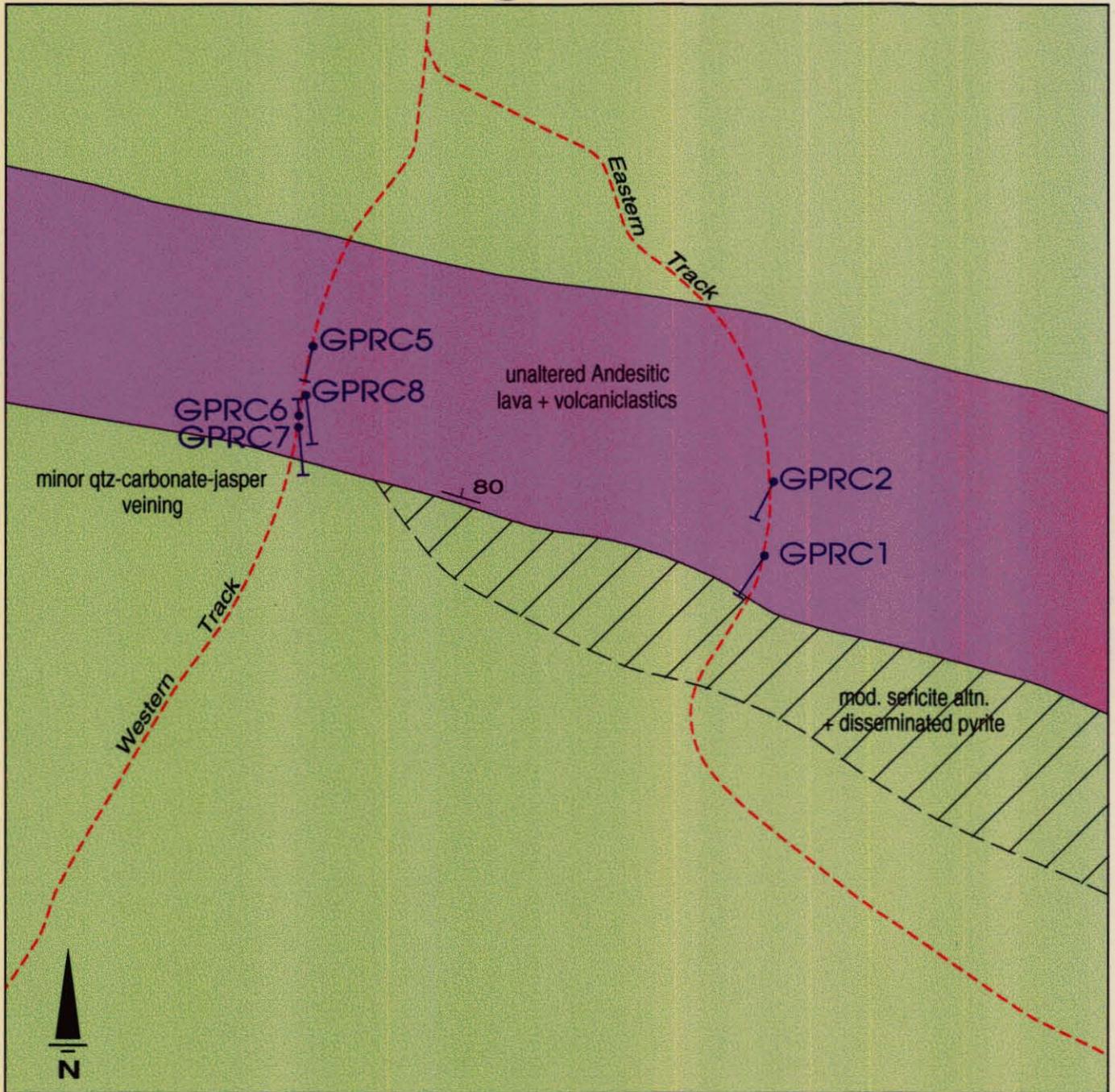
The contact between the andesite and the rhyolite is sharp. The rhyolite is characteristically moderate reddish brown - greyish red in colour. It is commonly a medium grained moderately sorted volcanoclastic sandstone consisting of subangular quartz fragments, broken feldspars and red hematitic grains. The western intersections contain abundant thin quartz-jasper, quartz-jasper-carbonate veining at the contact.

Drilling of the rhyolite andesite contact has shown the andesites to be relatively unaltered. A area of moderate pervasive albite? alteration occurs above the contact within andesites in hole GPRC 8. The magnetic character of the unit has been destroyed and the albite? alteration may represent either hanging wall hydrothermal or deuteric alteration. Weak chlorite alteration in association with epidote, quartz and carbonate veining are characteristic of low grade metamorphic effects. Alteration within the rhyolite suggests it is getting stronger to the east. On the western most section the rhyolites were unaltered but did however contain abundant small quartz-carbonate-jasper veining. Jasper veining has been observed in the footwall below Howards Anomaly, infilling hydrothermal breccias in the footwall at Lyell-Comstock and

GOWRIE PARK PROSPECT E.L. 32/94 EXISTING RC DRILLING

RGC Exploration

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LEGEND

- Rhyolite
- Andesite
- Sericite + pyrite alteration
- RC Hole
- Track access

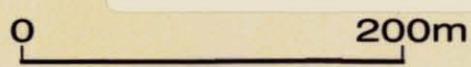
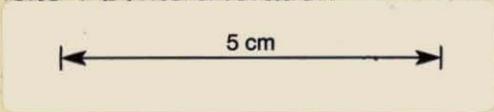


Fig. 2

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GOWRIE PARK PROSPECT E.L. 32/94 WESTERN TRACK N-S CROSS SECTION RC DRILLING

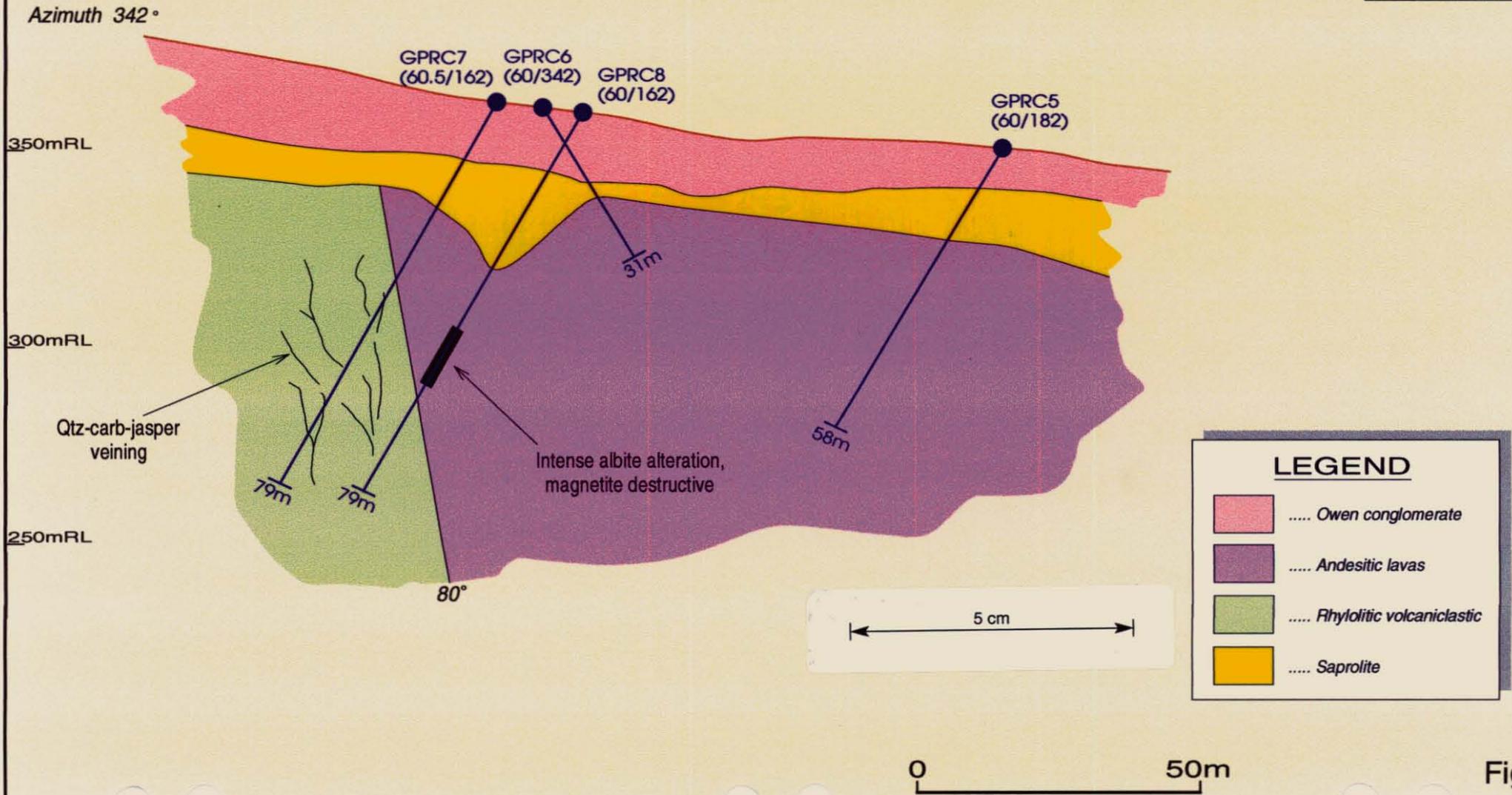
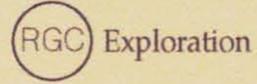
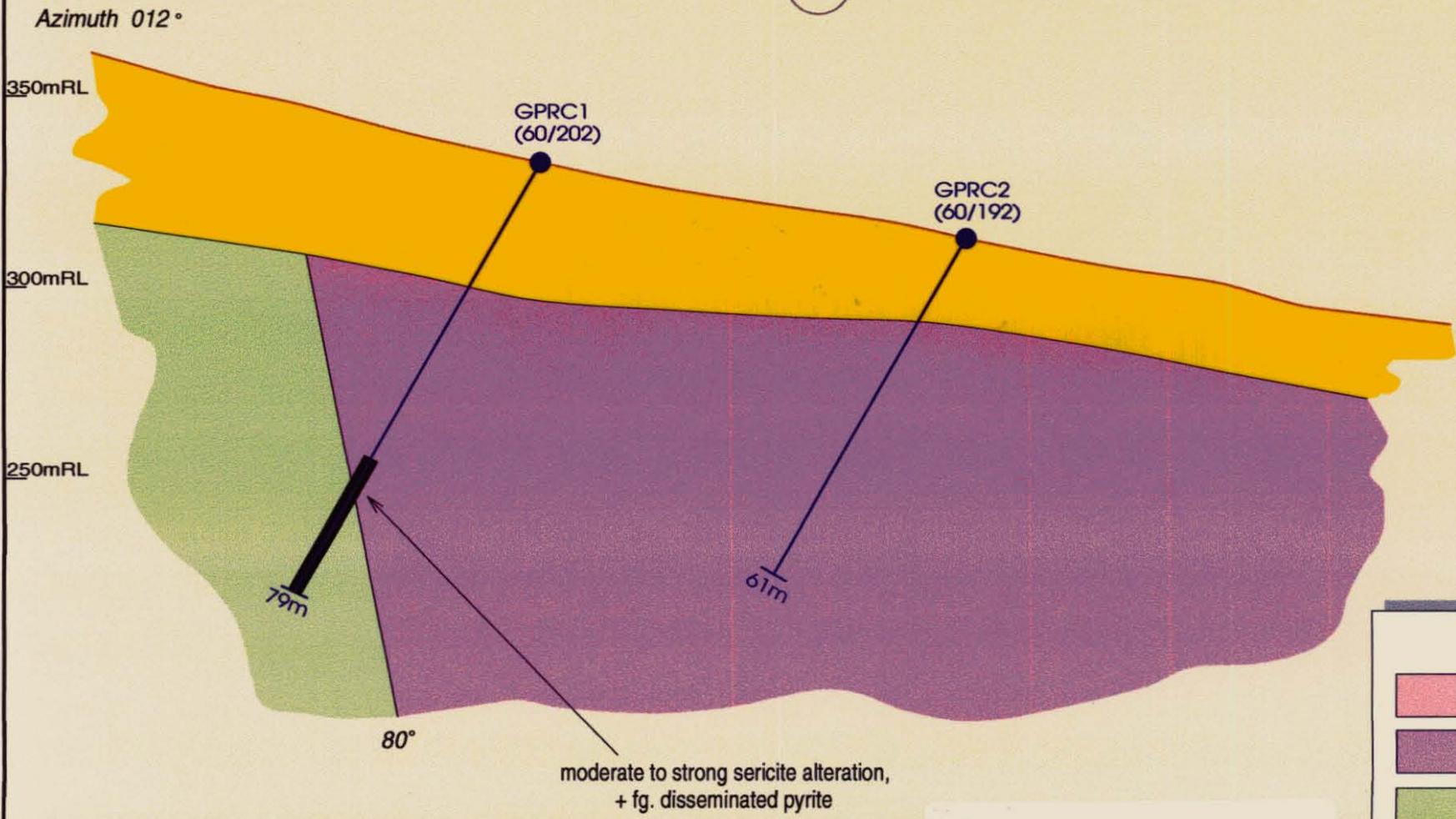
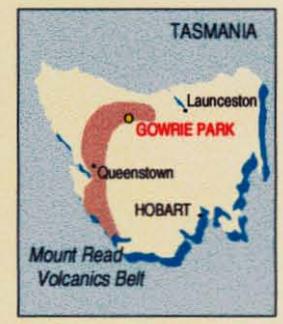
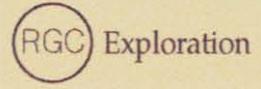


Fig. 3
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GOWRIE PARK PROSPECT E.L. 32/94 EASTERN TRACK N-S CROSS SECTION RC DRILLING



LEGEND

- Owen conglomerate
- Andesitic lavas
- Rhyolitic volcanoclastic
- Saprolite

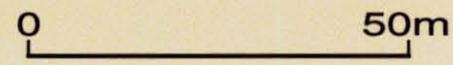
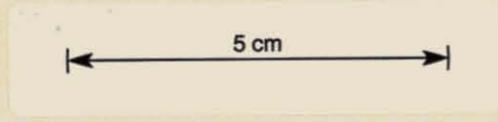


Fig. 4
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at the margins of a silica-sericite-pyrite alteration zone in the footwall of a Permian VHMS system at Devlin Creek (S.Halley. Pers. comm). Jasper veining is characteristic of low temperature hydrothermal fluids in distal VHMS settings. On the eastern section the rhyolites were moderately sericite altered and contained disseminated pyrite alteration with no jasper veining. Drill logs are presented in appendix 2.

5.3 Drill Chip Geochemistry

118 three meter composite drill chip samples were taken from the start of the saprolite horizon and analysed by Analabs for the following elements:

METHOD	ELEMENTS
AAS	Cu, Pb, Zn, Ag
AAS	fire assay Au

No samples within scree cover were assayed. The results of the analyses are listed in appendix 3.

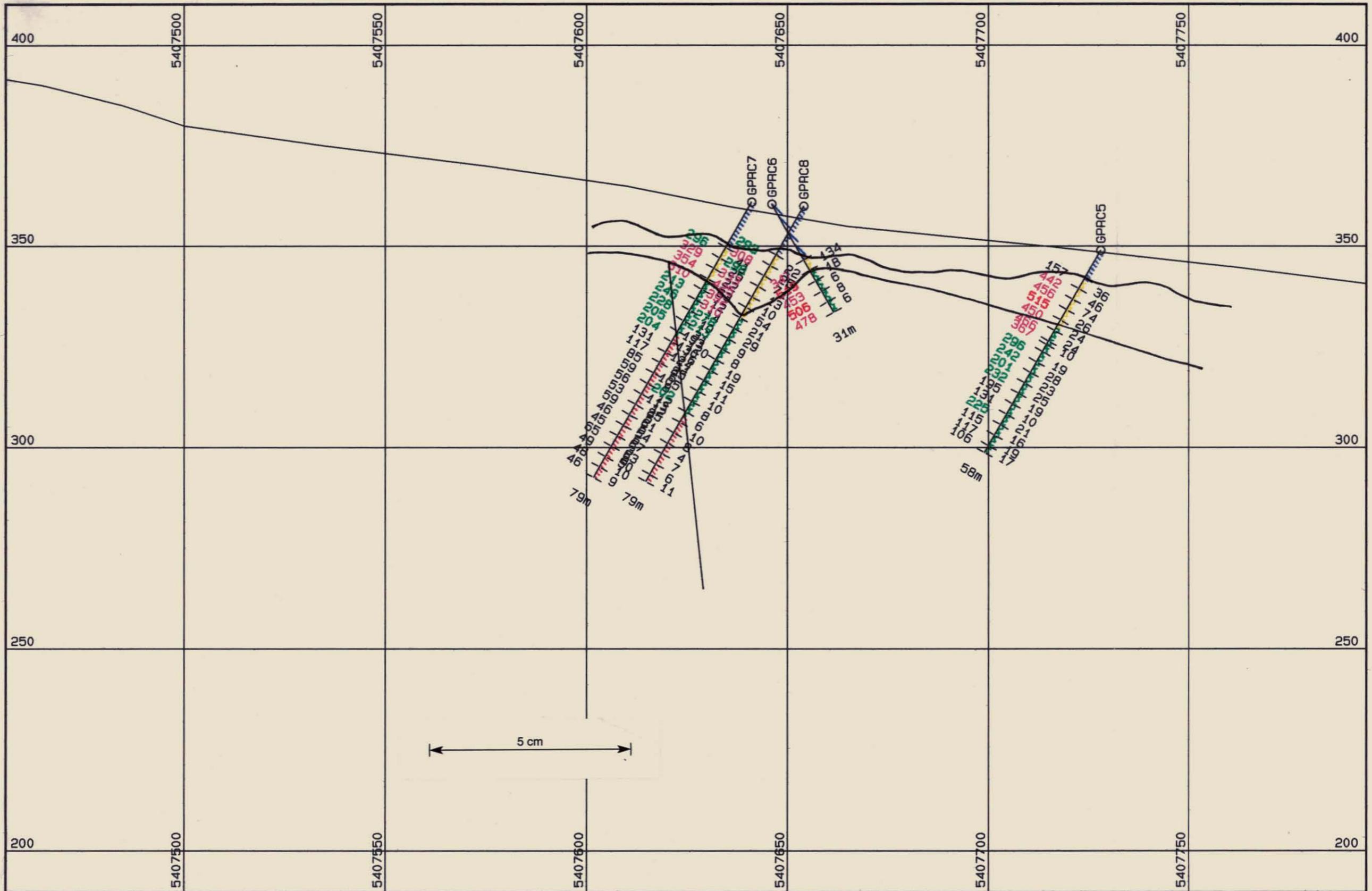
Only minor base metal concentrations were detected. Au and Ag were below detection limit and Cu assays were typically low below 50ppm. In general Pb and Zn values were low rarely exceeding values greater than 500ppm. Andesites contain higher background base metal concentrations than the rhyolites and the contact between the two is marked by a significant decrease in Pb and Zn values. Base metal concentrations within the saprolite were consistent with values of the underlying andesite from which they were derived, however it appears that the first few meters within the profile have been leached (Figs. 5,6).

From comparison of the two drill fences it is apparent that the eastern fence is more anomalous within the andesites containing values commonly above 500ppm Zn and 300ppm Pb. Although the rhyolite contains insignificant base metal occurrences in comparison to the western fence the eastern fence has elevated Zn values and one anomalous Pb value of 700ppm. It appears that the base metal values are increasing from west to east, an observation supported by the increase in sericite - pyrite alteration.

Overall base metal values were low, however base metal concentrations and alteration appear to be increasing from west to east.

5.4 SELF POTENTIAL SURVEY

The self potential (SP) survey was conducted by RGC personnel during June-July 1996. The aim of the SP survey was to delineate natural self potentials arising from sub-surface sulphide mineralisation.



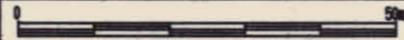
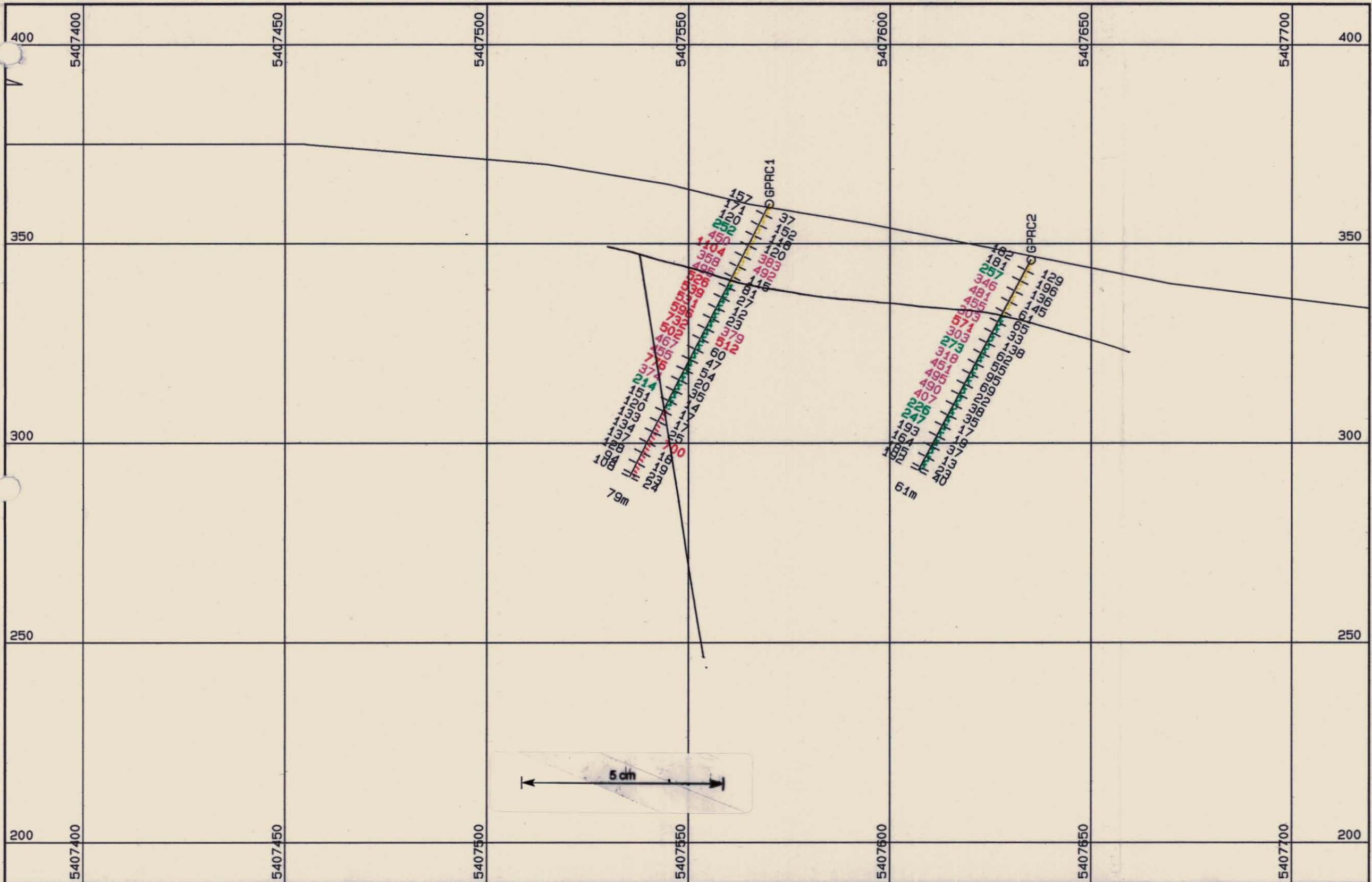
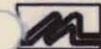
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Figure 5

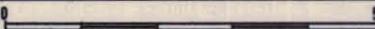


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GOWRIE PARK
 RC DRILLING
 PROGRAM

RGC EXPLORATION
 GOWRIE PARK EL 32/94
 TASMANIA

Figure 6

SURVEY PROCEDURE

A digital voltmeter and a pair of non-polarising porous porcelain electrodes filled with CuSO_4 solution were used for the SP survey. Data was acquired along 200m spaced N-S grid lines from 2800E to 5200E. 100m infill lines were surveyed between 3300E and 3700E. A base line at the northern end of the grid was surveyed to allow tying in of adjacent lines.

Each survey line had a base station at its northern end, and potentials were measured along the line with respect to that base station. The technique involved moving an electrode along the line and measuring the potential difference between the base electrode and the survey electrode via a connecting insulated wire. A 25m station interval was used. Several of the lines were extended beyond the length of the connecting wire, hence additional base stations along these lines were established.

The self potential between electrodes was measured at regular intervals during the survey. These were used in addition with the base line data for correction. The survey data was base line corrected with respect to the station at 434800mE, 5487835mN.

The survey was conducted in two phases. The initial phase involved data acquisition along lines at 200m intervals. Following delineation of a -100mV anomaly on line 3600E three 100m grid lines at 3300,3500,3700E were cut and surveyed.

RESULTS

Data is displayed as a colour contour image in Plan 3.

A -200mV NNE-SSW striking SP anomaly extends from line 3600E, 7150N to 3700E, 7850N. This anomaly occurs coincident with a local topographic high consisting of Roland Conglomerate Scree and is almost perpendicular to the strike of the geology.

A further large amplitude anomaly (-250mV) is located on the southern end of line 5000E at 6700N. This anomaly occurs over Roland Conglomerate scree cover near the outcropping Roland Conglomerate at the base of the cliffs of Mt Claude.

Smaller amplitude anomalies are similarly located with centres at 2800E, 7532N (-100mV), 3400E, 7406N (-60mV), 4200E, 7445N (-110mV), and 5000E, 7100N (-140mV).

Comparison of the SP data with topography shows that all of the anomalies are coincident with scree slopes and/or topographic highs. It is therefore considered that the SP response is caused by either or both of the following:

- a) The naturally occurring streaming potential as a result of water flowing down a valley has been shown to give positive anomalies that may be up to 200mV in amplitude. Given the base station readings were taken at lower topographic heights, these positive streaming potentials (defined as the zero level) would then result in SP measurements at elevated areas be negative in amplitude.
- b) The SP effect may be due to the conductive transported overburden that comprises the topographic high. This may be a result of an electrochemical reaction at the base of the Roland Conglomerate derived overburden with the underlying volcanic lithologies.

5.5 GRADIENT ARRAY IP AND VLF-EM SURVEY

AIMS

An IP and VLF-EM survey were conducted by SCINTREX Pty Ltd and RGC personnel during September - October 1996. The aim of the geophysical surveys were to delineate sulphide mineralisation and assist in geological mapping. Previous exploration by CRA Exploration delineated a zone of base metal stringer mineralisation which was discovered by coincident IP survey and soil geochemistry. It is the eastern extension of the CRA anomaly and the andesite-rhyolite contact in the northern portion of the grid which was the main focus of geophysical exploration.

METHOD

IP and resistivity data was acquired for a total of 26.55 line km's over four arrays. A single repeat line was recorded for each adjacent grid to enable stitching of the adjacent survey. Data was acquired with 25m dipoles at 25m station intervals on lines generally spaced 200m apart except in Array 1 where there are several 100m lines (Plan 4).

VLF-EM data was acquired over the entire grid from line 2000E to 6400E with a data interval of 12.5m except line 3200E, 3300E, and 3500E where the sample interval was 25m. For a more detailed discussion on theoretical considerations, survey parameters and results, see Dauth (1996) appendix 4.

RESULTS

The IP and VLF-EM results are presented in appendix 4. Extension of the IP survey data to the east of the known mineralisation has failed to detect any obvious anomalous zones. Anomalous apparent chargeabilities up to 20msec were recorded in the remainder of the grid, however these most commonly occur as non closed off anomalies on the southern extent of the

grid lines. There is evidence in the data to suggest that higher chargeabilities may be encountered south of the surveyed grid and that the known ESE striking mineralisation may in fact continue under the Roland Conglomerate of Mt Claude. As these elevated chargeability values are recorded outside the recommended 1/3 current electrode spacing (ie to close to the current electrode) and qualitative interpretation is not possible. A coincident VLF anomaly over the known mineralisation also disappears under Mt Claude.

A large VLF anomaly occurs over the rhyolite -andesite contact in the south on lines 5000E-5400E, 6600mN-6900mN and appears to occur on a stratigraphic horizon parallel to the CRA anomaly. Chargeability values also appear to increase at the southern extent of grid lines 4800E and 5600E. The VLF and chargeability anomalies are not closed off as the grid lines cease at the base of the Roland Conglomerate cliffs and access is not possible. However they do occur in a favorable geological environment near the rhyolite-andesite contact and close to a large fault observed in the magnetic data. A field trip undertaken to look for signs of mineralisation found the area to be covered by scree. To the east Cambrian rocks exhibit either no alteration or weak patchy sericite alteration and there are some weakly anomalous soil samples.

Another feature of interest was a VLF anomaly in the north-east of Gowrie Park extending from line 5600E - 6400E, 8090mN-7920mN. The majority of this area is covered by scree. Cambrian rocks which outcrop consist of unaltered andesite lavas and volcanoclastics. The absence of any significant chargeability response also downgrades its potential.

In general the geophysical data has failed to outline any obvious anomalies. The suggestion that mineralisation may occur to the south under Mt Claude is supported by magnetic and VLF-EM data. The VLF anomaly close to the fault is interesting and does occur in a favorable geological environment, however the IP data does not cover the area of interest, the elevated readings are inconclusive and Cambrian rocks show little evidence of mineralisation.

The geophysical response over the initial area of interest, the rhyolite-andesite contact, failed to detect any anomalism attributable to massive sulphide mineralisation, at least to a depth of 200m.

6. RECOMMENDATIONS

Exploration this period has focused on the eastern extent of the known stringer mineralisation discovered by CRA exploration and the andesite - rhyolite contact, which is interpreted to be the seafloor position at the time the stringer mineralisation was depositing. Geophysical techniques, RC drilling

and soil geochemistry have failed to outline any obvious near surface targets. The stratigraphic facing is uncertain and subsequently future exploration programs, as in the past, will be conceptual targets.

Geological features at Gowrie Park common to VHMS systems are;

- 1) a bimodal volcanic package
- 2) characteristic sericite-pyrite footwall? alteration
- 3) jasper - quartz - carbonate veining in the footwall? rhyolites
- 4) occurrence of albite alteration in the hangingwall? andesites
- 5) an asymmetrical alteration halo
- 6) known base metal stringers of Cambrian age in the footwall? rhyolites.

Consideration of the above features and the extent of the alteration from Gowrie Park to Cethana suggests that a substantial hydrothermal system was operative. Previous exploration efforts have focused along strike from the CRA known mineralisation and along strike of the andesite - rhyolite contact and have failed to locate significant mineralisation close to the surface. It is proposed exploration focus on those areas hidden from previous exploration techniques such as at depth and underneath the Roland Conglomerate of Mt Claude.

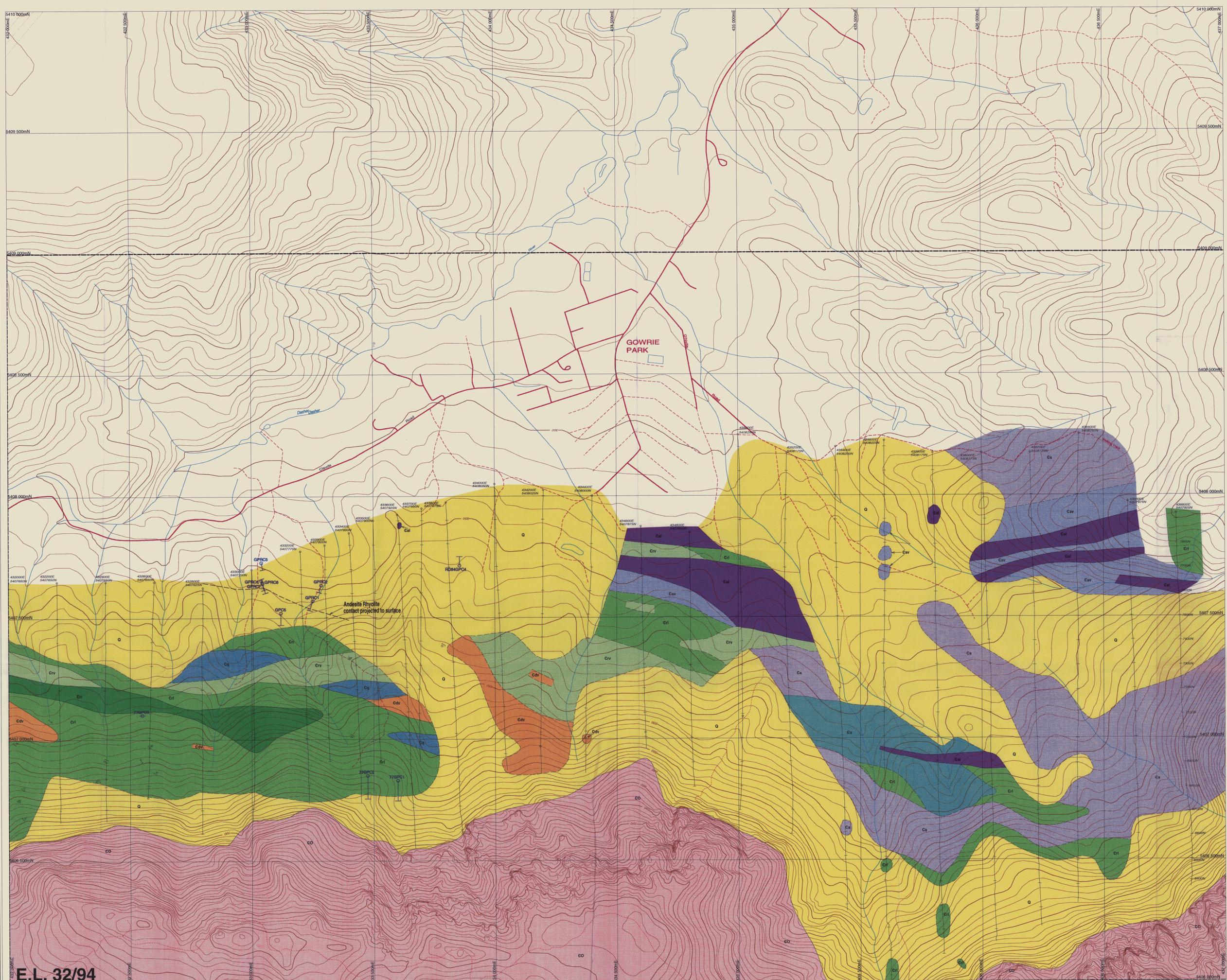
Two exploration programs are proposed for Gowrie Park .

The first and priority target will be drilling the andesite - rhyolite contact at depth. In previous RC drilling a general asymmetry to the alteration is noted. The base metal values are low and not particularly encouraging, the strike potential has been adequately tested by IP surveys and exploration should now focus on testing down dip. It is quite possible that the alteration seen on the surface may represent the margins of a massive sulphide body at depth. Since RC drilling has show that there is asymmetry to the alteration halo at the andesite - rhyolite contact it is proposed that a 200 - 400m deep diamond drill hole targets this contact. If the alteration continues at depth DHEM surveys should be carried out.

The second exploration program will focus on ways of testing the base of and beneath Mt Claude. VLF-EM and magnetic data indicates that the CRA anomaly may extend underneath Mt Claude. The VLF-EM anomaly which appears to be a stratigraphic horizon parallel to the CRA anomaly occurs at the base of Mt Claude and is scree covered. It too is not closed off and disappears underneath Mt Claude.

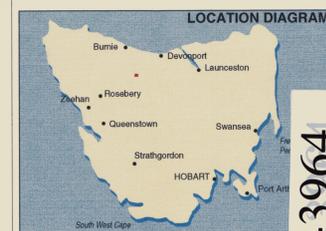
7. REFERENCES

Halley, S.W., and Vicary, M.J., 1996, EL 32/94 Gowrie Park Annual Report.
RGC Exploration Pty Ltd.



- GEOLOGICAL REFERENCE**
- Q Quaternary siltstone - possible glacial deposits
 - CO Late Cambrian-Early Ordovician siliciclastic conglomerates (basal conglomerates)
- Cambrian Rocks**
- Cq Rhyolite intrusive
 - Cr Rhyolite lava
 - Crv Rhyolite volcaniclastic sediments
 - Ca Dacitic volcaniclastic sediments
 - Cu Interbedded rhyolite-andesitic volcaniclastic sediments and lavas
 - Cq Quartzite
 - Ca Andesitic lava
 - Cav Andesitic volcaniclastic sediment
- Geological contact accurate
 Geological contact approximate
 Bedding, facing unknown
 Bedding, facing up
 Overturned bedding
 Vertical, horizontal bedding
 Cleavage, vertical cleavage
 Compositional banding, foliation, vertical
 Flow banding, vertical
 Plunge of columnar joint
 Joint, vertical joint
 Minor fault
 Minor fold
 Prospect
 Mine

- TOPOGRAPHY**
- Road
 - Track
 - Railway Line
 - Building
 - Fence
 - Wagonrout
 - Lake
 - Well &/or Bore
 - Grid line
 - Tenement Boundary
 - Index contour with value
 - Minor contour with value



RGC EXPLORATION
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GOWRIE PARK PROJECT
 GOWRIE PARK EL 32/94
GEOLOGICAL INTERPRETATION

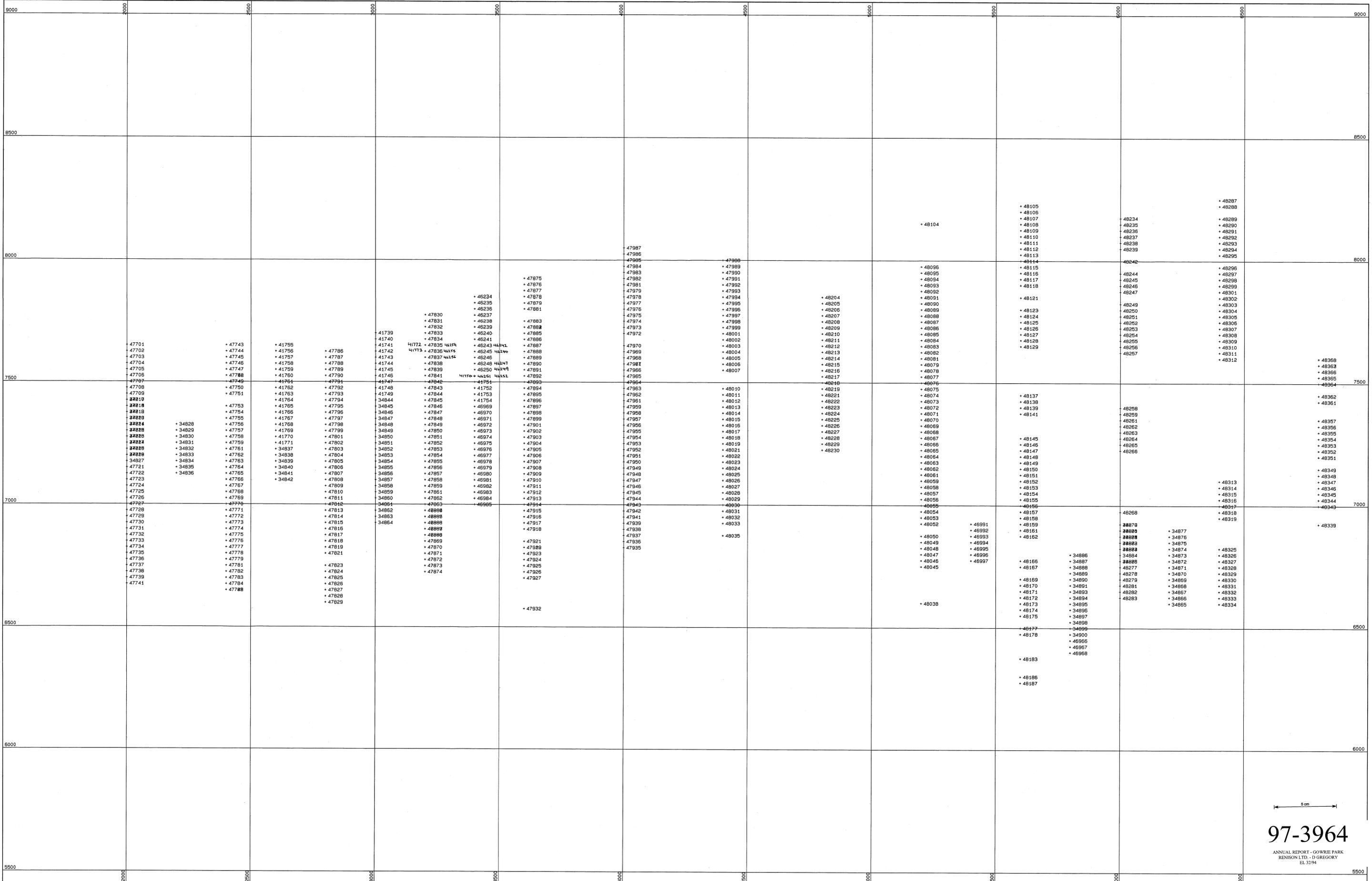
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 2. Topography : 2315.dgn
 3. Sampling : ts155.dgn
 4. Tenement : ts155.dgn
 5. Coord Grid : 2315grid.dgn

Compiled : S.Halley/D.Gregory
 Drawn : M.Wallier
 Date : 22 Jan. 1996
 Revision Date : Jan. 1997

Scale : 1 : 5 000
 A.M.G. Zone : 55
 Drawing Path : d:\tdraft\gowrie\base
 PLAN 1

E.L. 32/94

97-3964
 ANNUAL REPORT - GOWRIE PARK
 RENISON LTD. - D.GREGORY
 EL 32/94
 319024



5 cm

97-3964

ANNUAL REPORT - GOWRIE PARK
RENISON LTD. - D GREGORY
EL 3294

Plotted with

MICROMINE
 Resources Software
 Perth, Australia
 Tel +61 9 389 8722
 Fax +61 9 386 7462

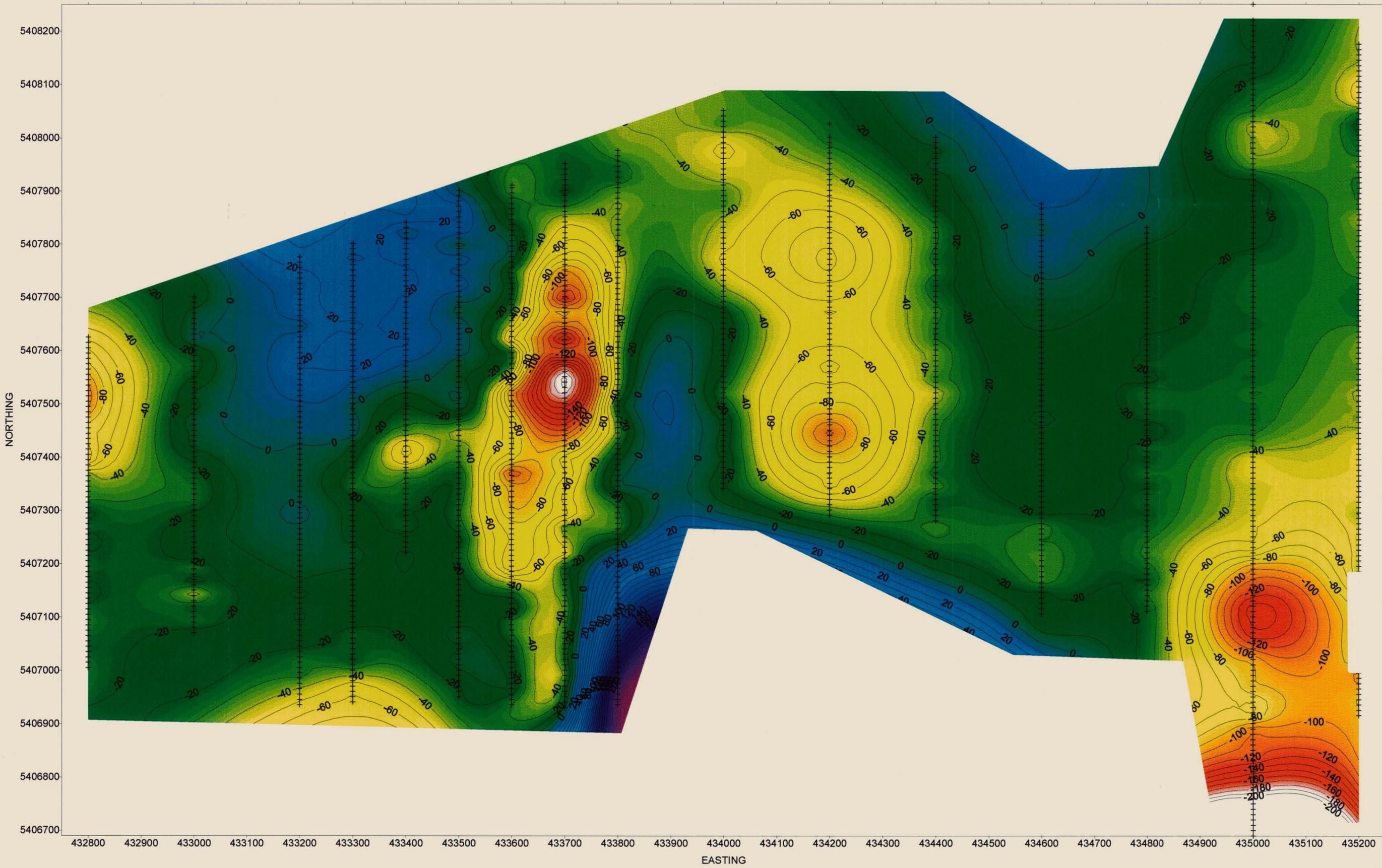
GOWRIE PARK
 RGC EXPLORATION
 SOIL SAMPLE LOCATIONS

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	REF No. 1	

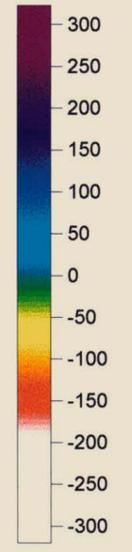
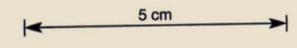
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RGC EXPLORATION
 GOWRIE PARK EL 32/94
 TASMANIA
 PLAN 2

319925



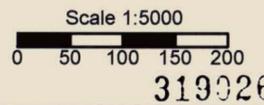
SELF POTENTIAL CONTOURS
 Contour Interval 10mV
 Base Station (0mV) 434800mE 5407835mN



millivolts

97-3964

ANNUAL REPORT - GOWRIE PARK
 REN RENISON LTD. - D GREGORY
 EL EL 32/94



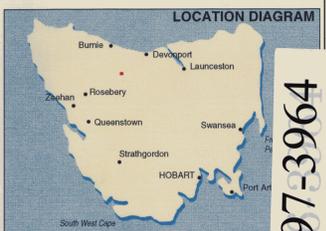
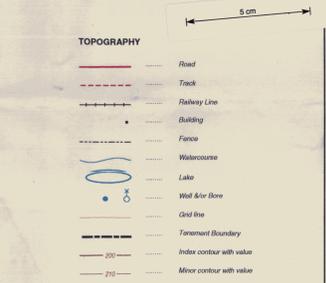
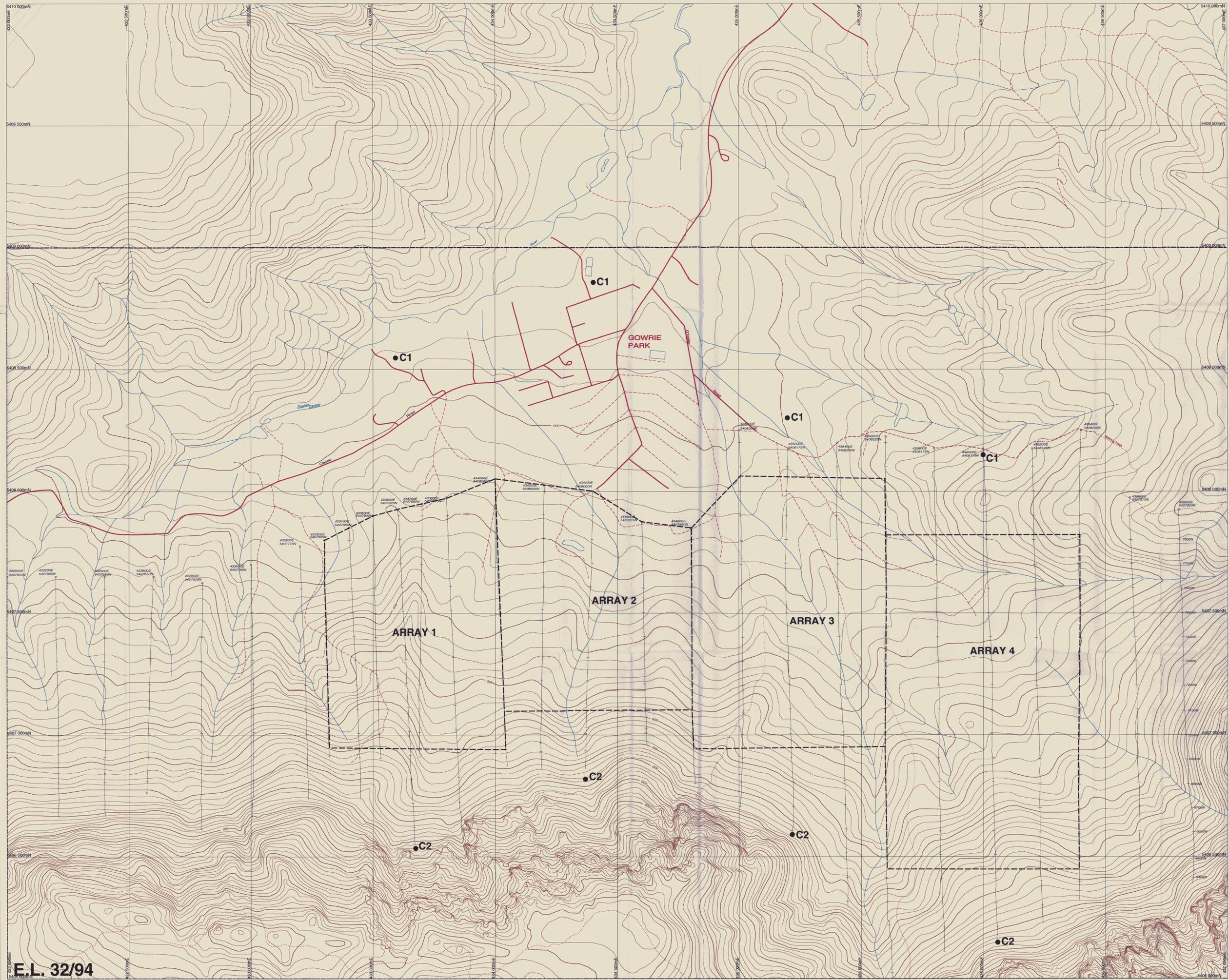
RG Exploration

Tasmania SK/55-NW 1:250 000

Plan **3**
 GOWRIE PARK
 EL 32/94

Colour Filled Contours of
 SELF POTENTIAL (mV)

Drawn by: C Dauth | Date: 23 July 1996



97-3964

RGC EXPLORATION
Member of the Renison Goldfields Consolidated Group

GOWRIE PARK PROJECT
GOWRIE PARK EL 32/94
GEOPHYSICAL ARRAY LINES

Reference Files:	1. Geology : geo5.dgn	2. Topography : 23198.dgn	3. Sampling : -	4. Tenement : tas55.dgn	5. Coord Grid : 23198grid.dgn	
Compiled:	S.Halley/D.Gregory	Date:	22 Jan. 1996	Scale:	1 : 5 000	
Drawn:	M.Walter	Revision Date:	Jan. 1997	A.M.G. Zone:	55	
Drawing Path:	d:\asdraft\gowrie\base				Drawing Name:	23150001.dgn

E.L. 32/94

31 9127

PLAN 4

319028

APPENDIX 1

GOWRIE PARK SOIL SAMPLES

APPENDIX 1
NORTHERN LINE EXTENSIONS

SAMPLE	GEAST	GNORT	CU_A	PB_A	ZN_A	TI_X
46234	3400	7850	5	77	95	7410
46235	3400	7825	15	113	122	4820
46236	3400	7800	6	54	44	6420
46237	3400	7775	9	50	92	5465
46238	3400	7750	5	56	51	5190
46239	3400	7725	5	42	68	7115
46240	3400	7700	4	41	61	8975
46241	3400	7675	5	26	42	9465
46242	3400	7650	4	-5	27	8205
46243	3400	7650	4	18	43	9295
46244	3400	7625	4	16	46	8015
46245	3400	7625	7	24	62	8085
46246	3400	7600	5	33	43	6825
46247	3400	7575	5	87	73	7255
46248	3400	7575	6	69	68	7630
46249	3400	7550	13	60	71	6540
46250	3400	7550	16	134	100	6560
46251	3400	7525	7	23	56	7870
46252	3400	7525	13	405	92	5910
46254	3200	7650	50	484	882	3625
46255	3200	7625	34	387	1308	3555
46256	3200	7600	47	432	1009	3885

APPENDIX 1
MOBILE METAL ION SOIL SAMPLES

SAMPLE	GEAST	GNORTH	CU_A	ZN_A	PB_A
41739	3000	7700	0.34	4.82	0.67
41740	3000	7675	0.17	3.24	0.71
41741	3000	7650	0.1	3.26	0.7
41742	3000	7625	0.12	3.53	0.74
41743	3000	7600	0.1	2.85	0.36
41744	3000	7575	0.06	2.14	0.36
41745	3000	7550	0.12	2.34	0.37
41746	3000	7525	0.14	4.18	2.73
41747	3000	7500	0.08	2.39	0.35
41748	3000	7475	0.08	2.23	1.39
41749	3000	7450	0.07	2.6	0.92
41750	3400	7525	0.08	2.69	0.63
41751	3400	7500	0.08	3.09	1.19
41752	3400	7475	-0.05	1.88	0.76
41753	3400	7450	0.13	2.99	0.36
41754	3400	7425	0.05	3.72	0.68
41755	2600	7650	0.23	3.74	0.67
41756	2600	7625	0.1	3.88	1.05
41757	2600	7600	0.07	3.1	0.48
41758	2600	7575	0.09	4.48	0.87
41759	2600	7550	0.07	1.85	0.34
41760	2600	7525	0.12	3.61	1.04
41761	2600	7500	0.14	3.62	0.64
41762	2600	7475	0.05	3.07	0.93
41763	2600	7450	0.08	3.14	1.18
41764	2600	7425	0.11	2.36	0.57
41765	2600	7400	0.08	3.48	0.51
41766	2600	7375	0.05	3.07	0.52
41767	2600	7350	0.07	3.08	0.59
41768	2600	7325	0.06	1.38	0.27
41769	2600	7300	0.07	3.04	0.52
41770	2600	7275	0.12	3.93	0.42
41771	2600	7250	0.09	3.59	0.94
41772	3200	7650	8.26	85.6	46.1
41773	3200	7625	1.05	107	29.1

319031

APPENDIX 1

SOIL SAMPLES OVER VLF-EM ANOMALY

SAMPLE	GEAST	GNORTH	CU_A	PB_A	ZN_A	AU_G
48045	5200	6750	5	10	9	-0.008
48046	5200	6775	8	12	9	-0.008
48047	5200	6800	4	11	10	0.01
48048	5200	6825	2	6	7	0.008
48049	5200	6850	2	4	6	-0.008
48050	5200	6875	2	4	7	-0.008
48052	5200	6925	8	3	9	-0.008
48053	5200	6950	3	3	7	-0.008
48054	5200	6975	-2	-3	5	-0.008
48055	5200	7000	-2	-3	6	-0.008
48056	5200	7025	4	-3	18	-0.008

APPENDIX 2

GOWRIE PARK RC DRILLING LOGS

RGC EXPLORATION PTY LTD - RC DRILL LOG

DRILL HOLE No. GPRC 1

319035

- Bedding
- [Cleavage
- Foliation
- ~ Fault, Shear
- △△△△ Breccia

- Disseminated
- Massive
- ▨ Pervasive
- ↘ Narrow vein

PROJECT	: Gower Park
PROSPECT	:
CO-ORDINATES	:
DATE	: 6/4/96
AZIMUTH TN	: 197° DIP: -60°
LOGGED BY	: D. C.

HOLE DEPTH	SAMPLE No. PREFIX	PHENACITE	LOG	CONTAMINATED	QUARTZ %							CHALCOPYRITE	GALENA	SPHALERITE	MAGNETITE	HEMATITE	PYRITE	CLAY	DESCRIPTION	ASSAY DATA						SUMMARY CODE
					20	40	60	80	Au	Cu	Pb									Ag	Zn	Ba				
41																			Andesite lower cont.			27	60		502	
42																										
43																										
44																						14	47		467	
45																										
46																										
47																						18	54		455	
48																										
49	Wet																									
50	"																					13	20		776	
51	"																									
52	"	101																								
53	"	"																				18	35		374	
54	"																									
55	"																									
56	"																					14	14		814	
57	"																									
58	"																									
59	"																					10	17		151	
60	"																									
REMARKS																										

46-48 wk pervasive sericite altm, mostly of feldspars. Broken ground.

55-59 light olive green, wk albite altm of feldspars, minor pale sericitic chips.

RGC EXPLORATION PTY LTD - RC DRILL LOG

DRILL HOLE No. GPRC 1

319036

- Bedding
- ┌ Cleavage
- └ Foliation
- ~ Fault, Shear
- △△△△ Breccia

- Disseminated
- Massive
- Pervasive
- Narrow vein

PROJECT	: <u>Gowrie Park</u>
PROSPECT	:
CO-ORDINATES	:
DATE	: <u>6/5/96</u>
AZIMUTH TN	: <u>197°</u> DIP: <u>760°</u>
LOGGED BY	: <u>D.G.</u>

HOLE DEPTH	SAMPLE No. PREFIX	PICTORIAL LOG	QUARTZ %		CHALCOPYRITE	GALENA	SPHALERITE	MAGNETITE	HEMATITE	PYRITE	CLAY	DESCRIPTION	ASSAY DATA						
			20	30									Au	Cu	Pb	Ag	Zn	Ba	SUMMARY CODE
61	Wct											<u>Rhyolitic Volcaniclastic</u>							
62	"											<u>59-76 light pink - dark pink, R.m.g., wk-mol. fol., mod. sorted.</u>		6	17			120	
63	"											<u>str albification of feld. + mod - str sericite alter. Minor Pg</u>							
64	"											<u>disseminated pyrite</u>		9	25			133	
65	"											<u>Black Pg detrital grains possibly sulphide?</u>							
66	"																		
67	"																		
68	"											<u>62-63 Pg black sulphide grains, sulphides?</u>		102	700			134	
69	"																		
70	"											<u>65-66 10% milky qtz - pyrite veins.</u>							
71	"											<u>Rhyolite lava / Intrusive?</u>		9	18			137	
72	"																		
73	"											<u>76-79 Reddish pink, R.m.g., wk fol., feld. phytic lava / intrusive. Not altered.</u>							
74	"													9	19			128	
75	"																		
76	"											<u>ECU @ 79m.</u>							
77	"													10	23			94	
78	"																		
79	"													9	24			108	
80	"																		

REMARKS

319037

- Bedding
- ┌ Cleavage
- └ Foliation
- ~ Fault, Shear
- △ Breccia

- ▨ Disseminated
- Massive
- ▩ Pervasive
- ↘ Narrow vein

PROJECT	: <u>Gower Park</u>
PROSPECT	:
CO-ORDINATES	: <u>5407639mN 4332957E</u>
DATE	: <u>26/4/96</u>
AZIMUTH TN	: <u>197°</u> DIP: <u>-60°</u>
LOGGED BY	: <u>R.G.</u>

HOLE DEPTH	SAMPLE No. PREFIX	PICTORIAL LOG	QUARTZ %		CHALCOPYRITE	GALENA	SPHALERITE	MAGNETITE	HEMATITE	PYRITE	CLAY	DESCRIPTION	ASSAY DATA						SUMMARY CODE			
			70	80									AU	Cu	Pb	Ag	Zn	Ba				
1												<u>Saprolite</u>										
2												0-2 Mod. yellowish brown suggy clay.		20	24			182				
3												2-8 Yellowish brown clay + minor weath. rock chips		18	196			181				
4												8-11 light olive clay + minor weath. rock chips		14	136			257				
5												11-15 Olive green clay + minor weath. rock chips		17	145			346				
6												15-16 Mod. green clay + weath. andesitic rock chips.		10	61			481				
7												<u>Andesite</u>		0	65			455				
8												16-61 Dark greyish green greyish green, E-frag, well sorted, feld. phytic volcanoclastic / lava? we-mud albite alter. of feld. Minor ytz remaining.		37				303				
9																						
10																						
11																						
12																						
13																						
14																						
15																						
16																						
17																						
18																						
19																						
20																						

REMARKS

RGC EXPLORATION PTY LTD - RC DRILL LOG

DRILL HOLE No. GPRC 2

319038

-  Bedding
-  Cleavage
-  Foliation
-  Fault, Shear
-  Breccia

-  Disseminated
-  Massive
-  Pervasive
-  Narrow vein

PROJECT	: Goume Park
PROSPECT	:
CO-ORDINATES	:
DATE	: 26/4/96
AZIMUTH TN	: 197° DIP: -60°
LOGGED BY	: D.G

HOLE DEPTH	SAMPLE No. PREFIX	PICTORIAL LOG	QUARTZ %			CHALCOPYRITE	GALENA	SPHALERITE	MAGNETITE	HEMATITE	PYRITE	CLAY	DESCRIPTION	ASSAY DATA						SUMMARY CODE
			20	40	60									80	Au	Cu	Pb	Ag	Zn	
21																				
22																				
23															27	27	138		571	
24																				
25																				
26															10	62		303		
27																				
28																				
29															10	55		273		
30	Wet																			
31	"																			
32	"														10	95		318		
33	"																			
34	"																			
35	"														11	69		451		
36	"																			
37	"																			
38	"														25	22		495		
39	"																			
40	"																			
REMARKS																				

RGC EXPLORATION PTY LTD - RC DRILL LOG

DRILL HOLE NO. CPRS - 8

319040

-  Bedding
-  Cleavage
-  Foliation
-  Fault, Shear
-  Breccia

-  Disseminated
-  Massive
-  Pervasive
-  Narrow vein

PROJECT	: <u>Gowan Park</u>
PROSPECT	:
CO-ORDINATES	: <u>5407128mN 433039mE</u>
DATE	: <u>24/4/96</u>
AZIMUTH TN	: <u>168°</u> DIP: <u>-60°</u>
LOGGED BY	: <u>D.C.</u>

HOLE DEPTH	SAMPLE No. PREFIX	PROPORTION Log Cont.	QUARTZ %				CHALCOPYRITE	GALENA	SPHALERITE	MAGNETITE	HEMATITE	PYRITE	CLAY	DESCRIPTION	ASSAY DATA						SUMMARY CODE						
			20	40	60	80									Au	Cu	Pb	Ag	Zn	Ba							
1																											
2																											
3																											
4																											
5																											
6																											
7																											
8																											
8	Sample Short																										
9																											
9																											
9-12																											
10																											
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13-16																											
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15																											
16																											
16-22																											
17																											
18																											
18																											
19																											
20																											
REMARKS																											

RGC EXPLORATION PTY LTD - RC DRILL LOG

DRILL HOLE No. GPRC5

319041

- Bedding
- ┌ Cleavage
- └ Foliation
- ~ Fault, Shear
- △ Breccia

- ▤ Disseminated
- Massive
- ▨ Pervasive
- ↘ Narrow vein

PROJECT	: <u>Goume Park</u>
PROSPECT	:
CO-ORDINATES	:
DATE	: <u>24/4/96</u>
AZIMUTH TN	: <u>168°</u> DIP: <u>-60°</u>
LOGGED BY	: <u>OG</u>

HOLE DEPTH	SAMPLE No. PREFIX	POTENTIAL Log Cont.	QUARTZ %	CHALCOPYRITE	GALENA	SPHALERITE	MAGNETITE	HEMATITE	PYRITE	CLAY	DESCRIPTION	ASSAY DATA						SUMMARY CODE			
												Au	Cu	Pb	Ag	Zn	Ba				
-21																					
-22											<u>Andesite horizon / volcaniclastic?</u>		44	24			450				
-23											22-29 greenish black, P-P.m.g equigranular non-wk bot. andesite with minor qtz veining. Non-wk calcite alter. Minor patchy albite alter, mostly alted. Relics pers. Minor epidote veining. Think it is a lava.										
-24													29	24			466				
-25																					
-26																					
-27																					
-28											<u>Andesite horizon</u>		11	10			367				
-29											29-55 Greenish black-black, P-P.m.g equigranular massive andesite lava. (Qtz ² -feld-perromag.) No alter, only albite replacement. Relics.										
-30	Wet												14	19			296				
-31																					
-32	Wet																				
-33	" "												22	28			242				
-34	" "																				
-35	" "																				
-36																					
-37													10	23			201				
-38	Wet	Si.																			
-39	Wet	10i.											9	25			232				
-40		10i.																			
REMARKS																					

RGC EXPLORATION PTY LTD - RC DRILL LOG DRILL HOLE No. GPRC 6
 319044

- Bedding
- ┌ Cleavage
- └ Foliation
- ~ Fault, Shear
- △△△△ Breccia
- ▤ Disseminated
- ▬ Massive
- ▨ Pervasive
- ↘ Narrow vein

PROJECT	: Gouwe Park
PROSPECT	:
CO-ORDINATES	:
DATE	: 25/4/96
AZIMUTH TN	: 344° DIP: -60
LOGGED BY	:

HOLE DEPTH	SAMPLE No. PREFIX	PICTORIAL LOG	QUARTZ %			CHALCOPYRITE	GALENA	SPHALERITE	MAGNETITE	HEMATITE	PYRITE	CLAY	DESCRIPTION	ASSAY DATA								
			20	40	60									80	Au	Cu	Pb	Ag	Zn	Ba	SUMMARY CODE	
21													Andesitic lava?									
22													19-31 greyish green,									
23													l - P.m.g., non-wk fol,									
24													feldspar phyric lava?									
25													Minor wk albite alt.									
26													of feldspars.									
27																						
28																						
29																						
30																						
31																						
32																						
33																						
34																						
35																						
36																						
37																						
38																						
39																						
40																						

REMARKS

RGC EXPLORATION PTY LTD - RC DRILL LOG

DRILL HOLE No. GPRC 7

319046

- Bedding
- ┌ Cleavage
- └ Foliation
- ~ Fault, Shear
- △ Breccia

- ▨ Disseminated
- Massive
- ▩ Pervasive
- ↘ Narrow vein

PROJECT	: Gawnie Park
PROSPECT	:
CO-ORDINATES	:
DATE	: 30/4/96
AZIMUTH TN	: 162°
DIP	: -60.5°
LOGGED BY	: D.G.

HOLE DEPTH	SAMPLE No. PREFIX	PICTORIAL LOG	QUARTZ %			CHALCOPYRITE	GALENA	SPHALERITE	MAGNETITE	HEMATITE	PYRITE	CLAY	DESCRIPTION	ASSAY DATA								
			20	40	60									80	Au	Cu	Pb	Ag	Zn	Ba	SUMMARY CODE	
21													22-23 olive brown clay + minor weath. limonitic rock chips									
22													<u>Andesite lava</u>									
23													23-25 greyish green, f.p.m.g. equigranular, non-wk fol. Minor wk chlorite altn + minor limonitic staining.									
24																						
25																						
26																						
27													<u>Andesitic volcanoclastic</u>									
28													25-35 greenish grey, f.m.g. non fol., med. sorted andesitic volcanoclastic wk chlorite + albite alteration, minor epidote veining.									
29																						
30																						
31																						
32																						
33																						
34																						
35																						
36																						
37																						
38																						
39																						
40																						

REMARKS

RGC EXPLORATION PTY LTD - RC DRILL LOG

DRILL HOLE No. GRCL7

319048

- Bedding
- ┌ Cleavage
- └ Foliation
- ~ Fault, Shear
- △△△△ Breccia

- Disseminated
- Massive
- Pervasive
- Narrow vein

PROJECT	: Gannic Park
PROSPECT	:
CO-ORDINATES	:
DATE	: 4/5/96
AZIMUTH TN	: 162°
DIP	: -60.5°
LOGGED BY	: D.C.

HOLE DEPTH	SAMPLE No. PREFIX	PICTORIAL LOG	QUARTZ %			CHALCOPYRITE	GALENA	SPHALERITE	MAGNETITE	HEMATITE	PYRITE	CLAY	DESCRIPTION	ASSAY DATA									
			70	80	80									AU	Cu	Pb	Ag	Zn	Ba	SUMMARY CODE			
61													<u>Rhyolitic Volcanoclastic</u>										
62																							
63															5	5						46	
64																							
65																							
66															6	6							45
67																							
68																							
69															6	3							65
70																							
71																							
72															5	8							49
73																							
74															8	10							48
75																							
76																							
77																							
78															5	9							46
79																							
80																							
REMARKS																							

69-79 wk sericite alter.

71-72 trace pyrite

EOH 79m

RGC EXPLORATION PTY LTD - RC DRILL LOG

DRILL HOLE No. GPRC 8

319049

-  Bedding
-  Cleavage
-  Foliation
-  Fault, Shear
-  Breccia
-  Disseminated
-  Massive
-  Pervasive
-  Narrow vein

PROJECT	: <u>Gawrie Park</u>
PROSPECT	:
CO-ORDINATES	: <u>5407654mN 433040mE</u>
DATE	:
AZIMUTH TN	: <u>162°</u> DIP: <u>-60°</u>
LOGGED BY	: <u>D.G.</u>

HOLE DEPTH	SAMPLE No. PREFIX	PICTORIAL LOG	QUARTZ %			CHALCOPYRITE	GALENA	SPHALERITE	MAGNETITE	HEMATITE	PYRITE	CLAY	DESCRIPTION	ASSAY DATA									
			20	40	60									80	Au	Cu	Pb	Ag	Zn	Ba	SUMMARY CODE		
1																							
2													0-14	Owen Sorel									
3																							
4																							
5																							
6																							
7																							
8																							
9																							
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11																							
12																							
13																							
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16																							
17																							
18																							
19																							
20																							
REMARKS																							

RGC EXPLORATION PTY LTD - RC DRILL LOG DRILL HOLE No. GRRC 8

319050

- Bedding
- ┌ Cleavage
- └ Foliation
- ~ Fault, Shear
- △△△△ Breccia

- ▨ Disseminated
- Massive
- ▩ Pervasive
- ↘ Narrow vein

PROJECT	: <u>Greenie Park</u>
PROSPECT	:
CO-ORDINATES	:
DATE	:
AZIMUTH TN	: <u>162°</u> DIP: <u>70°</u>
LOGGED BY	: <u>D.G.</u>

HOLE DEPTH	SAMPLE No. PREFIX	PICTORIAL LOG	QUARTZ %			CHALCOPYRITE	GALENA	SPHALERITE	MAGNETITE	HEMATITE	PYRITE	CLAY	DESCRIPTION	ASSAY DATA							
			20	40	60									AU	Cu	Pb	Ag	Zn	Ba	SUMMARY CODE	
21																					
22															99	71			298		
23																					
24															7	13			33		
25																					
26																					
27																					
28															9	10			425		
29																					
30																					
31															12	54			392		
32																					
33																					
34																					
35															17	21			310		
36																					
37															11	29			278		
38																					
39																					
40															5	9			213		
REMARKS																					

30-32 Olive brown clay with weath. andesitic rock chips.

Andesitic Volcaniclastic

32-45 Dark greyish green, f.m.g., well sorted, non-wk fol. Minor qtz-chlorite veins + albification of feldspar

APPENDIX 3

GOWRIE PARK DRILL CHIP ASSAYS

SAMPLE	HOLE	DEPTHF M	DEPTHT M	AU_A	AG_A	CU_A	PB_A	ZN_A
42303	GPRC1	33	36	0	-10	19	379	596
42304	GPRC1	36	39	0	-10	29	512	732
42305	GPRC1	39	42	0	-10	27	60	502
42306	GPRC1	42	45	0	-10	14	47	467
42307	GPRC1	45	48	0	-10	18	54	455
42308	GPRC1	48	51	0	-10	13	20	776
42309	GPRC1	51	54	0	-10	18	35	374
42310	GPRC1	54	57	0	-10	14	14	214
42311	GPRC1	57	60	0	-10	10	17	151
42312	GPRC1	60	63	0	-10	6	17	120
42313	GPRC1	63	66	0	-10	9	25	133
42314	GPRC1	66	69	0	-10	102	700	134
42315	GPRC1	69	72	0	-10	9	18	137
42316	GPRC1	73	75	0	-10	9	19	128
42317	GPRC1	75	78	0	-10	10	23	94
42318	GPRC1	78	79	0	-10	9	24	108

SAMPLE	HOLE	DEPTHF M	DEPTHT M	AU_A	AG_A	CU_A	PB_A	ZN_A
42251	GPRC7	31	34	0	-10	7	10	228
42252	GPRC7	34	37	0	-10	32	31	205
42253	GPRC7	37	40	0	-10	64	120	204
42254	GPRC7	40	43	0	-10	7	16	131
42255	GPRC7	43	46	0	-10	5	11	117
42256	GPRC7	46	49	0	-10	4	6	85
42257	GPRC7	49	52	0	-10	5	8	59
42258	GPRC7	52	55	0	-10	5	12	56
42259	GPRC7	55	58	0	-10	4	12	53
42260	STD	0	0	0	-10	1.3	19	62
42261	GPRC7	58	61	0	-10	4	5	59
42262	GPRC7	61	64	0	-10	5	5	46
42263	GPRC7	64	67	0	-10	6	6	45
42264	GPRC7	67	70	0	-10	6	3	65
42265	GPRC7	70	73	0	-10	5	8	49
42266	GPRC7	73	76	0	-10	8	10	48
42267	GPRC7	76	79	0	-10	5	9	46
42268	GPRC8	14	17	0	-10	19	22	293
42269	GPRC8	17	20	0	-10	13	25	308
42270	GPRC8	20	23	0	-10	99	71	298
42271	GPRC8	23	26	0	-10	7	13	333
42272	GPRC8	26	29	0	-10	9	10	425
42273	GPRC8	29	32	0	-10	12	54	392
42274	GPRC8	32	35	0	-10	17	21	310
42275	GPRC8	35	38	0	-10	11	29	278
42276	GPRC8	38	41	0	-10	5	9	213
42277	GPRC8	41	44	0	-10	7	8	193
42278	GPRC8	44	47	0	-10	7	19	130
42279	GPRC8	47	50	0	-10	7	15	124
42280	STD	0	0	0	460	3744	25.8	16.3
42281	GPRC8	50	53	0	-10	8	11	85
42282	GPRC8	53	56	0	-10	7	10	105
42283	GPRC8	56	59	0	-10	8	8	202
42284	GPRC8	59	62	0	-10	8	6	113
42285	GPRC8	62	65	0	-10	8	10	85
42286	GPRC8	65	68	0	-10	7	8	61
42287	GPRC8	68	71	0	-10	5	4	54
42288	GPRC8	71	74	0	-10	6	7	67
42289	GPRC8	74	77	0	-10	7	6	63
42290	GPRC8	77	79	0	-10	10	11	50
42291	GPRC1	0	3	0	-10	10	37	157
42292	GPRC1	3	6	0	-10	18	152	171
42293	GPRC1	6	9	0	-10	27	118	120
42294	GPRC1	9	12	0	-10	27	120	252
42295	GPRC1	12	15	0	-10	52	383	450
42296	GPRC1	15	18	0	-10	35	492	1104
42297	GPRC1	18	21	0	-10	88	115	358
42298	GPRC1	21	24	0	-10	11	81	495
42299	GPRC1	24	27	0	-10	7	27	526
42300	STD	0	0	0	-10	1.26	16	40
42301	GPRC1	27	30	0	-10	10	12	539
42302	GPRC1	30	33	0	-10	5	23	531

APPENDIX GOWRIE PARK DRILL CHIP ASSAYS

SAMPLE	HOLE	DEPTHF M	DEPTHT M	AU_A	AG_A	CU_A	PB_A	ZN_A
42201	GPRC5	8	11	0	-10	25	36	157
42202	GPRC5	11	14	0	-10	25	46	442
42203	GPRC5	14	17	0	-10	34	74	456
42204	GPRC5	17	20	0	-10	32	26	515
42205	GPRC5	20	23	0	-10	44	24	450
42206	GPRC5	23	26	0	-10	29	24	466
42207	GPRC5	26	27	0	-10	11	10	367
42208	GPRC5	29	32	0	-10	14	19	296
42209	GPRC5	32	35	0	-10	22	28	242
42210	GPRC5	35	38	0	-10	10	23	201
42211	GPRC5	38	41	0	-10	9	25	232
42212	GPRC5	41	44	0	-10	6	19	195
42213	GPRC5	44	47	0	-10	6	10	131
42214	GPRC5	47	50	0	-10	7	21	225
42215	GPRC5	50	53	0	-10	7	16	115
42216	GPRC5	53	56	0	-10	13	19	117
42217	GPRC5	56	58	0	-10	14	17	106
42218	GPRC2	0	3	0	-10	20	129	182
42219	GPRC2	3	6	0	-10	18	196	181
42220	GPRC2	6	9	0	-10	14	136	257
42221	GPRC2	9	12	0	-10	17	145	346
42222	GPRC2	12	15	0	-10	10	61	481
42223	GPRC2	15	18	0	-10	9	65	455
42224	GPRC2	18	21	0	-10	6	33	303
42225	GPRC2	21	24	0	-10	27	138	571
42226	GPRC2	24	27	0	-10	10	62	303
42227	GPRC2	27	30	0	-10	10	55	273
42228	GPRC2	30	33	0	-10	10	95	318
42229	GPRC2	33	36	0	10	11	69	451
42230	GPRC2	36	39	0	-10	25	22	495
42231	GPRC2	39	42	0	-10	28	38	490
42232	GPRC2	42	45	0	-10	12	35	407
42233	GPRC2	45	48	0	-10	7	17	226
42234	GPRC2	48	51	0	-10	6	19	247
42235	GPRC2	51	54	0	-10	15	37	193
42236	GPRC2	54	57	0	-10	9	13	164
42237	GPRC2	57	60	0	-10	15	23	185
42238	GPRC2	60	61	0	-10	32	40	192
42239	GPRC6	16	19	0	-10	32	134	347
42240	STD	0	0	0	-10	3.68	387	1135
42241	GPRC6	19	22	0	-10	41	18	519
42242	GPRC6	22	25	0	-10	19	6	453
42243	GPRC6	25	28	0	-10	18	8	506
42244	GPRC6	28	31	0	-10	13	6	478
42245	GPRC7	13	16	0	-10	17	41	296
42246	GPRC7	16	19	0	-10	10	25	329
42247	GPRC7	19	22	0	-10	14	22	354
42248	GPRC7	22	25	0	-10	26	63	310
42249	GPRC7	25	28	0	-10	8	12	213
42250	GPRC7	28	31	0	-10	8	14	246

APPENDIX 4

Interpretation of Induced Polarisation, and VLF-EM Ground Geophysical Data,
Gowrie Park, Tasmania.

INTERNAL REPORT

GOWRIE PARK

EL 32/94

*INTERPRETATION OF INDUCED POLARISATION, AND VLF-EM
GROUND GEOPHYSICAL DATA, GOWRIE PARK, TASMANIA.*

Vol 1 of 1

HELD BY: Renison Limited

MANAGER & OPERATOR: RGC Exploration

AUTHOR(s): Chris Dauth

13 December, 1996

PROSPECTS: Gowrie Park

MAP SHEETS: 1:25,000: Cethana 1:100,000: Forth

**GEOGRAPHIC COORDS Min East: 432 000mE Max East: 438 000mE
Min North: 5 0406 000mN Max North: 5 409 000mN**

COMMODITY(s): Cu, Pb, Zn, and Au

KEY WORDS: base-metals, conductivity, EM, IP, mineralisation, polarisable, VLF

Distribution:

- o RGC Exploration Information Centre Reference:
- RGC Zeehan

SUMMARY AND CONCLUSIONS

Induced polarisation and VLF EM survey data have been acquired and interpreted over EL 32/94, Gowrie Park Tasmania. The aim of the surveys were to identify geophysical responses associated with volcanic hosted massive sulphide mineralisation.

Previous exploration by CRA Exploration delineated a zone by geochemistry, geophysics, and drilling as having stringer style base metals mineralisation in the west of the Gowrie Park grid. IP and VLF data interpreted during this new phase of exploration were acquired over this anomalous zone as a way of calibrating the techniques. Both techniques showed anomalous response over the known mineralisation.

Extension of the IP survey data to the east of the known mineralisation has failed to detect any significantly anomalous zones to warrant a drill target. Anomalous apparent chargeabilities up to 20 msec were recorded in the remainder of the grid, however these most commonly occur as non closed off anomalies on the southern extent of grid lines. There is evidence in the data that higher chargeabilities may be encountered south of the surveyed grid. Data were not able to be acquired further to the south due to the cessation of grid lines at the base of the steep topographic expression of Mt Claude, Mt Van Dyke, and Mt Roland.

VLF data have delineated two east-west striking anomalous zones in the northeast and southeast of the survey region. The southern VLF anomaly is supported by elevated apparent chargeability readings, exists in a favorable geological position, and is within a zone of demagnetisation delineated on ground magnetic data, and thus presents a priority target for further exploration. The northern of the anomalies does not fall in a favorable geological setting and hence is a lower priority target zone. Direct drill testing or alternatively a dipole-dipole IP survey over the southern VLF anomaly has been recommended. Further investigation of the northern VLF anomaly will depend upon results of ground follow-up and possible geochemical sampling.

An apparent resistivity anomaly (in the same location as a UTEM anomaly discovered by CRA Exploration) has been delineated. The UTEM anomaly had previously been drilled in 1984, however the drilling results do not provide sufficient information to be able to explain the resistivity anomaly.

Background apparent resistivities generally showed higher values over rhyolitic, than andesitic lavas. Background apparent chargeabilities were generally not able to be correlated with lithology, however two linear zones of elevated apparent chargeability do occur within structural lineaments delineated from ground magnetic data.

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Gowrie Park (EL 32/94), located approximately 34km south of Devonport Tasmania, is currently being explored by RGC Exploration for volcanic hosted massive sulphide (VHMS) deposits. This report presents the results of induced polarisation (IP), and VLF electromagnetic (VLF-EM) ground geophysical surveys conducted as part of ongoing exploration activities.

The Gowrie Park tenement is considered to have potential to host Rosebery style Cu-Pb-Zn-Ag mineralisation. The ground being explored comprises andesitic, rhyolitic and volcanoclastic sequences. These volcanic sequences are often obscured from surface identification by a layer of quartz rich scree derived from the Late Cambrian Owen Conglomerate that forms Mt Claude, Mt Van Dyke, and Mt Roland located to the south of the Gowrie Park tenements. Topography is controlled by the steep northern and western slopes of these mountains, and it presents a considerable obstacle to exploration.

The IP and VLF surveys were conducted by SCINTREX Pty Ltd and RGC personnel during September-October 1996. The aim of the geophysical surveys were primarily, to delineate sulphide mineralisation as a direct ore detection technique, and secondly, to assist with geological mapping. It is often observed that the metallic sulphide mineral content of VHMS deposits exhibit anomalous polarisability and/or conductivity, thus providing an excellent target for electrical geophysical techniques.

2. GEOLOGY AND MINERALISATION

The geology and previous exploration at Gowrie Park have been described by Halley and Vicary (1996). They report an 8km belt of variably altered rhyolitic to andesitic volcanic rock extending from Cethana in the west to Gowrie Park. The interbedded andesitic to rhyolitic lavas and volcanoclastic sediments show variable sericite-silica-chlorite-pyrite alteration. These volcanic rocks strike east-west and are generally steeply dipping to the north.

The geology at Gowrie Park has been divided into three parts. These include a rhyolite dominated sequence in the west, an andesite dominated sequence in the north-east, and a mixed volcanoclastic package in-between. A rhyolitic intrusive has been mapped in the western region. Approximately 50-70% of the ground is covered by Quaternary cover comprising the Owen Conglomerate. This extensive cover is thought to be largely glacial deposits.

Exploration has largely focused on the western region of the tenement area where anomalous geochemistry and IP responses have been followed up with a number of diamond drill holes. These drill holes are reported to have intersected anomalous levels of basemetals, and sub-seafloor style basemetal veining. Stringer zone style Pb-Zn mineralisation was intersected in holes GPC1 (collared at 5406830mN, 433600mE), GPC2 (collared at 5406850mN, 433475mE), and GPC3 (collared at 5407100mN, 432550mE) drilled by CRAE in 1977. It is the eastern extension of this anomalous zone that is the main focus of this stage of exploration being conducted by RGC Exploration.

3. THEORETICAL CONSIDERATIONS

Following is a brief summary on the theoretical factors that must be considered with regard to IP and VLF EM survey techniques.

INDUCED POLARISATION

The IP survey utilised a gradient array configuration whereby current electrodes separated by 2km directly introduced electrical current into the ground. Potential voltages are then measured in between these current electrodes via contact with the ground using non polarisable electrode pots. For the technique to be effective, it requires current to be able to flow through the mineralised zone. This may not be possible where the conductive and/or polarisable body is perfectly shielded by an electrical insulator (such as silicification). In this case, an economic VHMS deposit could potentially go unidentified by an IP survey.

It is assumed in gradient array IP, that the current density is equal at all measurement points for a survey in a homogenous ground. This is not the case closer to the current electrodes where erroneous and often misleading IP data may be recorded. As a rule of thumb, it is generally regarded that a square grid the central third of the current electrode separation be measured to avoid problems associated with non uniform current density near the electrodes. In this survey, measurements were often made outside of this "safe region" (due to logistical reasons), and as a general guide, measurements made within 500m of the current electrode northing should be regarded as unreliable. On the outside reaches of a grid, readings will be made parallel to lines of equipotential thereby lowering the expected potential voltage reading (ie lower than expected apparent resistivity). Lines central to the survey grid and close to the current electrodes will cover regions of higher current density and therefore higher potential differences will be recorded (higher than expected apparent resistivity). Apparent chargeability readings within these zones will be variable and often show unrealistically high or negative values.

Topographic features will have an effect on IP readings. Topographic highs result in a dispersion of equipotential lines and therefore result in resistivity lows and visa-versa for valleys. Slopes of less than 10° are not considered to provide significant apparent resistivity anomalies. Apparent chargeability readings are less effected by topographic features than apparent resistivities.

VLF

VLF (Very Low Frequency) electromagnetics is an inductive exploration method which is based on measuring variations in components of EM fields set up by communications stations operating in the frequency range 15 to 25 kHz. The North West Cape communications antennae in Western Australia (operating at 19.8 kHz) was used for this survey.

The survey is relatively inexpensive (similar to ground magnetics acquisition) and provides a response that is dependent on the conductivity and thickness of subsurface conductors (such as a VHMS deposit containing conductive sulphides), the host rock resistivity, and overburden thickness. The response will also depend on the geometry of the subsurface conductor with respect to the location of the communications transmitter. Ideally for maximum response (best coupling of the conductor with the primary magnetic field), the geological strike should be directed towards the transmitter.

The SCINTREX VLF receiver used for the survey measured two parameters, the in-phase and out of phase vertical components of the magnetic field oscillating at the frequency of the

transmitter. The receiver also measured the total horizontal field, however variations in the strength of the total field make these measurements unreliable. Interpretation is rather qualitative due to the complex nature of the anomaly shape in regions with a variable overburden cover. VLF anomalies result from a wider range of conductivities than for other lower frequency EM survey techniques. Targets such as shear zones and disseminated sulphides do produce a VLF anomaly. The depth of investigation with the VLF technique depends on the ground conductivity. The higher the conductivity, the lower the depth of investigation. Assuming a host rock resistivity of 3000 ohm.m, the effective depth of investigation will be approximately 75m.

4. SURVEY PARAMETERS

The IP survey was conducted using the SCINTREX TSQ-3 3kW time domain transmitter and the IPR-12 time domain receiver.

Data were recorded on four gradient array, and one dipole-dipole spread. The gradient array data utilised 2km current electrode separations. Transmitting currents of between 0.8 and 3 Amps were employed during the survey. Current electrodes comprised three adjacent pits lined with aluminium foil. Locations of the current electrodes are given below:

Array 1.	C1	3600mE	8550mN
	C2	3600mE	6550mN
Array 2.	C1	4400mE	8850mN
	C2	4400mE	6820mN
Array 3.	C1	5200mE	8300mN
	C2	5200mE	6590mN
Array 4.	C1	6000mE	8150mN
	C2	6000mE	6150mN

IP and resistivity data were acquired with 25m dipoles at 25m station interval from line 3200mE to 6400mE. Data were acquired on lines up to 1.5km in length between the current electrodes. A single repeat line was recorded for each adjacent grid to enable tying in of the adjacent survey data. A total of 26.55km of gradient array data were acquired. Lines are generally spaced at 200m intervals except in Array 1 where there are several 100m lines.

VLF data were acquired over 25 lines extending from 2000mE to 6400mE for a total of 33.935km. A data interval of 12.5m was utilised for all lines except line 3200mE, 3300mE, and 3500mE where the sample interval was 25m.

5. RESULTS

Survey data have been gridded and are displayed in Plan 1, Plan 2, Plan 3, Plan 4, and Plan 5. Ground magnetic data from a previous survey are presented in Plan 6. Profiles of the data for each line are presented in Figure 1 to Figure 26. Dipole-dipole pseudosections for line 3600 are presented in Figure 27.

Array 1 of the gradient array IP survey (line 3200mE to 4000mE) is located in a region that has previously been covered by IP (CRA Exploration 1977). The CRA Exploration data shows a 50 msec apparent chargeability anomaly and coincident resistivity low centred at 433590mE, 5406780mN. This anomaly strikes east-west, with a strike extent of 500m extending from 433200mE to 433700mE. The anomalous zone has previously been targeted

by exploration drilling and was found to contain stringer style base-metal mineralisation. Array 1 of this survey was positioned to cover a portion of the anomalous zone to enable to two surveys to be tied together, as well as checking the instrument and survey layout.

Data from Array 1 (lines 3200-4000) show anomalous apparent chargeability and low resistivity coincident with the CRA Exploration IP anomalies. The Array 1 data shows a maximum apparent chargeability of 36 msec on line 3400. Data was unable to be acquired over the centre of the CRA Exploration IP zone as the data became unreliable due to the close proximity of the southern current electrode. Results showed a generally good correlation between the 1977 IP survey data, and the 1996 RGC survey. The 1977 CRA Exploration survey extended lines further to the south than the RGC survey, which would probably suggest that their southern current electrodes were set up over the other side of Mt Van Dyke.

Apparent resistivity data (Plan 2) show an apparent resistivity low (<400 ohm.m) striking east-west, and extending from 3600mE to 4600mE (across Array 1 and Array 2). This anomaly is centred on a northing of 7750mN. It is within a region covered by Owen Conglomerate scree, hence the nature of this resistivity anomaly is not known. The contact between rhyolite and andesitic lavas has been mapped on the eastern extent of this resistivity low. It is possible that the anomaly represents a more conductive zone along this contact, such as a weathered zone. It should be noted that this zone is more conductive than any other zone encountered during the IP survey (more so than the known mineralised zone centred at 433590mE, 5406780mN which has an apparent resistivity of 500ohm.m). Despite the apparent resistivity anomaly being situated within a favorable geological position (andesite/rhyolite contact), the absence of a coincident apparent chargeability response would suggest that this anomaly is not associated with mineralisation. In fact, the background chargeabilities generally become lower directly over the resistivity anomaly. The anomaly is also coincident for much of its strike extent (3600mE-4200mE) with a highly magnetic unit delineated from ground magnetic data (see Plan 5). This suggests a lithological cause. CRA Exploration drilled a diamond drill-hole at 433855mE, 5407715mN targeting a UTEM time domain electromagnetic anomaly. This hole was well positioned to test the low apparent resistivity anomaly, and did not intersect significant mineralisation. The physical nature of the resistivity anomaly is not well understood, and it should be pointed out that the cause of such low apparent resistivity readings are unable to be explained by the current geological information.

Resistivity values are generally elevated over the rhyolitic lavas (most likely as a result of higher quartz content), and lower over the andesitic lavas. There does not appear to be a strong correlation between apparent resistivity data and Owen Conglomerate scree or topography. This suggests a relatively high resistivity of the overlying scree (which would be expected due to a high quartz content, and fresh water content). Therefore the overlying scree should not be considered as a significant problem to the electrical measurements.

An apparent chargeability low zone that extends from line 3200 to 3800 striking approximately east-west and centred on a northing of 7250mN. This position correlates well (although not perfectly) with the location of a mapped rhyolitic intrusive. The low is not well defined as it only represents a drop in background chargeability from 10 msec to 8 msec.

Given that CRA Exploration have adequately tested the IP anomalies covered by their 1977 IP survey, there are no additional targets delineated by the region covered by Array 1 of the RGC IP survey.

Array 2 is adjacent, and to the east of Array 1. The southern current electrode due to logistical constraints was only able to be located at 6820mN. Although data on lines 4000, 4200, 4400, 4400, and 4800 were acquired as far south as 6850mN, the data south of 7100mN is unreliable. This is shown by comparison of the repeat lines 4000 and 4800 with the adjacent arrays. There is a poor correlation of data between adjacent grids south of 7050mN. Therefore, data south of 7050mN can not be compared with the remainder of the survey region. Despite this, it can be observed on lines 4200, 4400, and 4600 that elevated chargeabilities (up to 22 msec) were recorded on the southmost extent of each line. Although these values are unable to be quantitatively interpreted, they do suggest that a chargeable zone does exist at the southern extent of each line except 4000 and 4800. High apparent resistivities are associated with all elevated apparent chargeabilities at the end of each of these lines. These higher apparent resistivities may be totally attributable to the fact that these measurements were made close to the current electrodes in regions of greater current density. The imaged data of Plan 1 does not show the apparent chargeability high zone centred at 4400mE, 6900mN since readings regarded as unreliable have been excluded. Follow-up work (drilling or further IP) would be required before conclusions can be drawn as to its significance.

There were no apparent chargeability anomalies north of 7000mN in Array 2 that would warrant further investigation.

Array 3 data show similar results to Array 2. Elevated apparent chargeabilities (up to 20 msec on line 4800) are observed on lines 4800, 5400, and 5600 at the southern most stations (to 6850mN). Again the data within the anomalous zone exists too close to the current electrode to be reliable. Lines 5000 and 5200 do not show elevated apparent chargeabilities at their southern extents.

Slightly elevated apparent chargeabilities are observed coincident with the northern side of a NW-SE striking lineament delineated from ground magnetic data extending from 4400mE, 8000mN to 6600mE, 6300mN. Andesitic lavas are the main lithology encountered to the north of this lineament. The high chargeability zone is not coincident with an apparent resistivity low as would be expected if the elevated chargeabilities were due to clay content along a weathered structure. For this reason it is proposed that there may be some minor disseminated mineralisation along this structure. The elevated chargeabilities are not of anomalous level (<12 msec), and this horizon would not warrant further investigation.

Array 4 is the most southern of the IP arrays, and actually extends onto the Owen Conglomerate via a valley developed between Mt Van Dyke and Mt Roland. Slightly anomalous chargeabilities (up to 14 msec) and low apparent resistivities were observed on lines 5600 and 5800 centred on 6550mN. These anomalies strike east-west and have been closed off to the south. The anomalies do have coincident apparent resistivity lows (<1200 ohm.m). The magnitude of the IP anomaly would not warrant follow-up in this position, however the location of the anomalies suggests an increase in chargeability to the west. This raises the possibility of the IP anomaly continuing west of Array 4 and south of Array 3 that has not been traversed due to the close proximity of the current electrode of Array 3. A significant VLF anomaly (discussed in more detail later) is situated directly south of Array 3 IP readings on lines 4800, 5000, 5200, 5400, and 5600 striking WNW-ESE on a northing of 6800mN in the west to 6550mN in the east. This anomalous zone should be considered for follow-up work.

A NW-SE striking zone of elevated background apparent chargeabilities (up to 13.5 msec) and coincident high apparent resistivities (>2000 ohm.m) extends through Array 4 from 7900mN on line 5600 to 7500mN on line 6400. This linear feature is located directly over a

NW-SE lineament of demagnetisation delineated from ground magnetic data. This zone occurs within a region mapped as andesitic lavas and andesitic volcanoclastic sediments. As this zone does not appear to be lithological, then it may be inferred that the lineament is structural, and that elevated apparent chargeabilities are related to minor disseminated mineralisation along the structure.

A 13.5 msec apparent chargeability and 600 ohm.m apparent resistivity anomaly is located at the north of line 6200 on a northing of 7850mN. Line 6400 shows a slightly lower amplitude chargeability anomaly at the north of the line (12 msec at 7850mN). These numbers do not warrant direct follow-up, however the elevated values do upgrade the significance of a strong VLF anomaly that is observed striking east-west directly to the north. Line 5600 traverses the western extent on the VLF anomaly at 8090mN. Apparent resistivity values at this point were anomalous (400 ohm.m), however the apparent chargeability values were also extremely low (3 msec). Geological mapping in this region shows this VLF anomaly, and the apparent resistivity anomaly on line 5600 are over Quaternary Owen Conglomerate scree/glacial deposits, however they are regionally within andesitic volcanic lavas, and could be projected along strike of a contact between andesitic lava and andesitic volcanoclastic sediments. It is unlikely that this contact would cause such a high amplitude VLF response. The low apparent chargeabilities recorded on line 5600 over the western extent of the VLF anomaly would downgrade its potential as being mineralisation related, however the elevated apparent chargeabilities recorded to the north of lines 6200 and 6400 give evidence to the contrary.

The VLF data is displayed as profiles in Figures 1 - 26, and as coloured contours of Frazer filtered data in Plans 4 and 5. By the nature of the physics involved with VLF measurements, the top of a conductive body is indicated by a cross-over with opposite polarity peaks to either side. The Frazer filter operation transforms the data to give high values directly above a cross-over (ie directly over the conductive body causing the anomaly).

Three anomalous zones were delineated in the VLF data.

A VLF anomaly exists at the southern extent of lines 2800 to 3800 (Frazer filtered VLF amplitudes of up to 400). The position of this anomaly is similar to the position of the anomalous chargeability and resistivity data obtained by CRA Exploration in 1977. As discussed previously, several drill holes were sited to test the IP anomalies which intersected stringer style base metal mineralisation. The VLF anomalies were not closed off to the south (due to logistical problems associated with extreme topographic relief). The VLF data on line 3600 shows two cross-over anomalies (centred at 6740mN and 6640mN). A line of dipole-dipole IP was conducted over line 3600 to see if the more southern VLF anomaly had a coincident IP anomaly. The dipole-dipole pseudosections (Figure 27) show a characteristic dipole-dipole anomaly for a north dipping chargeable zone centred at 6750mN, but was unable to delineate a southern chargeable zone. Further investigation is not recommended. The VLF anomaly as a whole showed there to be a relatively good correlation between anomalous IP results and VLF data.

The second VLF anomaly is a linear feature that extends from line 4800 to 6000. This is a high amplitude broad anomaly. Line 4800 (the western extent of the VLF anomaly) shows an apparent chargeability high (20 msec) directly associated with the peak of the VLF anomaly (amplitude 200). The main part of the anomaly (highest amplitudes up to 600) exists on line 5000, 5200, and 5400 (centres at 6820mN, 6700mN, and 6680mN) where there are no IP data. Line 5400 shows rising apparent chargeabilities (up to 11 msec) at the southern extent of the IP data (6900mN) which may suggest an increase in chargeability associated with readings closer to the VLF anomaly centre at 6680mN (this remains purely speculative). Line

5600 and 5800 show coincident apparent chargeabilities were recorded directly above the VLF centre (13.5 and 13 msec at 6540mN on both lines). At lines 5600 and 5800 the amplitude of the Frazer filtered VLF data are 230 and 260 respectively. Although these values do not represent a quantifiable physical parameter (such as chargeability and resistivity), they have been shown at Gowrie Park to be related to the chargeability. If we assume the association is correct, then high apparent chargeabilities might be expected over the VLF anomaly centres on line 5000 to 5400. Further investigation (geophysical and/or drilling) of this target is recommended.

The third VLF anomaly is an east-west striking high amplitude zone (Frazer filtered values up 500) in the north-east of Gowrie Park that extends from line 5600 (northing 8090mN) to 6400 (northing 7920mN). This anomaly was described previously in discussion of the IP results. The mapped geology and geochemistry of this region is not particularly favorable for potential as a site for a VHMS deposit. As this region is largely covered by glacial and scree deposits (west of 6000mE), further ground investigation should be conducted.

6. RECOMMENDATIONS

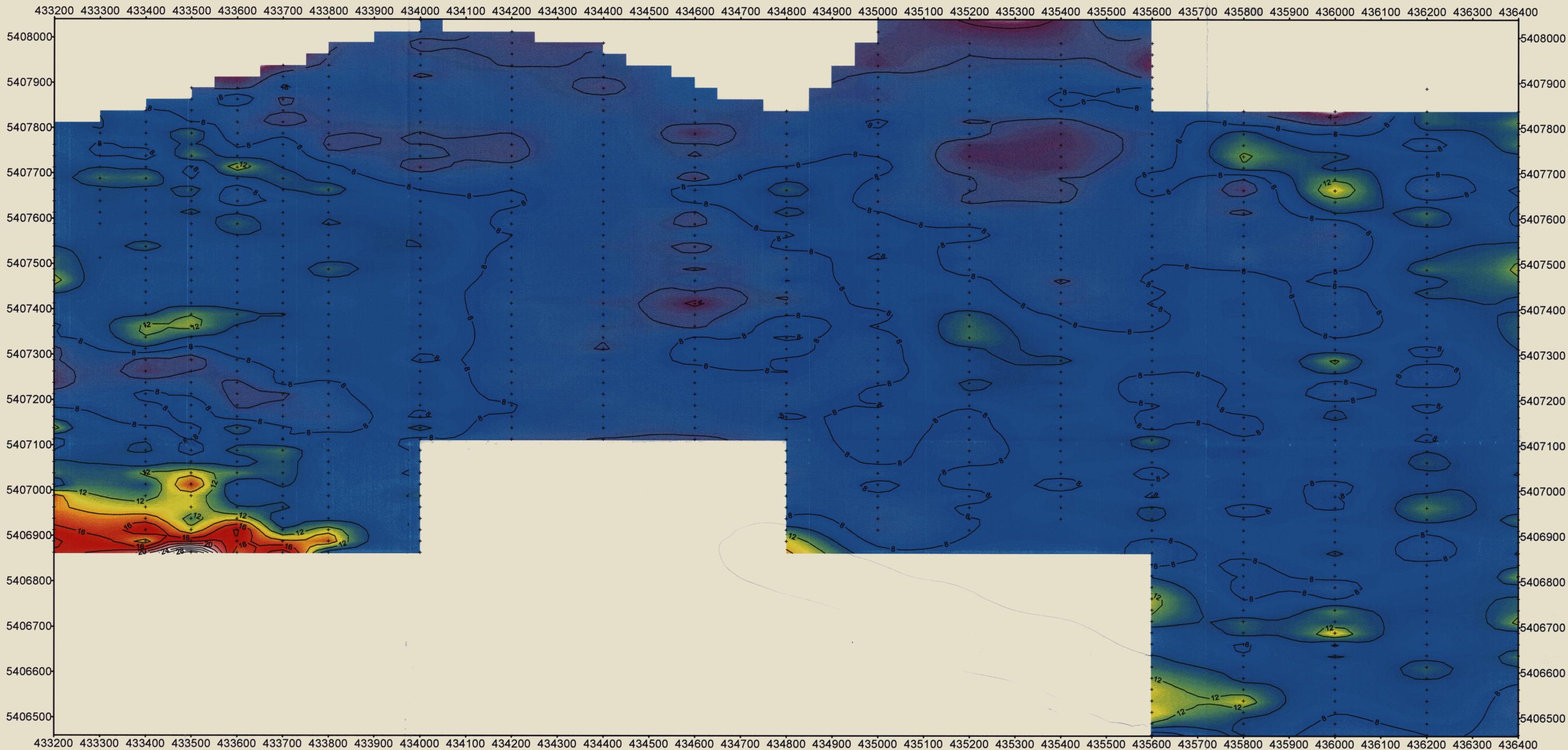
The following recommendations are made from the results of the geophysical surveys:

- The VLF anomaly in the southeast of the survey region (lines 5000, 5200, and 5400 centered at 6820mN, 6700mN, and 6680mN) should be investigated. The rhyolite/andesite contact mapped to the east of the anomaly should be examined on the ground for evidence of alteration. Further geochemistry would most probably not be of use as the anomaly is covered by glacial and scree deposits. A drillhole to test this VLF anomaly should be sited on line 5000 oriented to the south and designed to intersect 6820mE at a vertical depth of 100m-150m. Alternatively a dipole-dipole IP survey could be conducted over lines 5000, 5200, 5400, and 5600 to determine if the zone does in fact comprise a chargeability anomaly. An attempt should be made to extend some of the grid lines further to the south if this option is taken.
- Ground follow-up (including geochemical sampling) of the north-east VLF anomaly from line 5600 to 6400 on approximately 8000mN should be conducted. Investigation of the eastern andesite lava and andesitic volcanoclastic sediment contact should be investigated to try and identify any alteration. If possible, geochemical samples should be taken on the horizon extending from 8000 to 8050mN on line 5800 (previously unsampled). If these results are not encouraging, then the VLF anomaly should be downgraded. If drilling results from the previous VLF anomaly (described in the preceding point) show mineralisation, then this VLF anomaly should be drilled (despite unfavorable geological conditions) on the basis that two out of the three VLF anomalies would have been found to be related to mineralisation.
- Further investigation of the low apparent resistivity anomaly (coincident with the CRAE UTEM anomaly drilled in 1984) could be warranted. This is particularly due to its favorable geological location along the contact between andesite lava to the north and rhyolite to the south. This zone extends from line 3600 to 4600 on a northing of 7750mN. If required, a drill target would follow review of the CRAE drilling results and ground follow-up of the anomalies location.

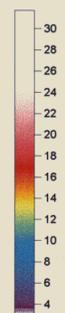
7. REFERENCES

Halley, S. W., and Vicary, M. J., 1996, EL 32/94 Gowrie Park Annual Report, RGC annual report submitted to Tasmanian Mines Department

Kirton, M., 1977, Phase I induced polarisation surveys Cethana EL 10/76 Tasmania 1976-77, CRA Exploration Rept No. 8960, TCR 81-1616

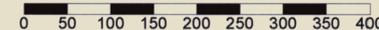


Apparent Chargeability
msec



5 cm

SCALE 1:5000



Projection: UTM
Grid: Australian Map Grid
Zone: SK/55
Datum: AGD66
Spheroid: ANS 66

97-39644
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RENISON LTD - D GREGORY OXY
EL 32/94

RGC EXPLORATION PTY LTD

Plan 1

**GOWRIE PARK EL 32/94
NORTH WESTERN TASMANIA SK/55-NW**

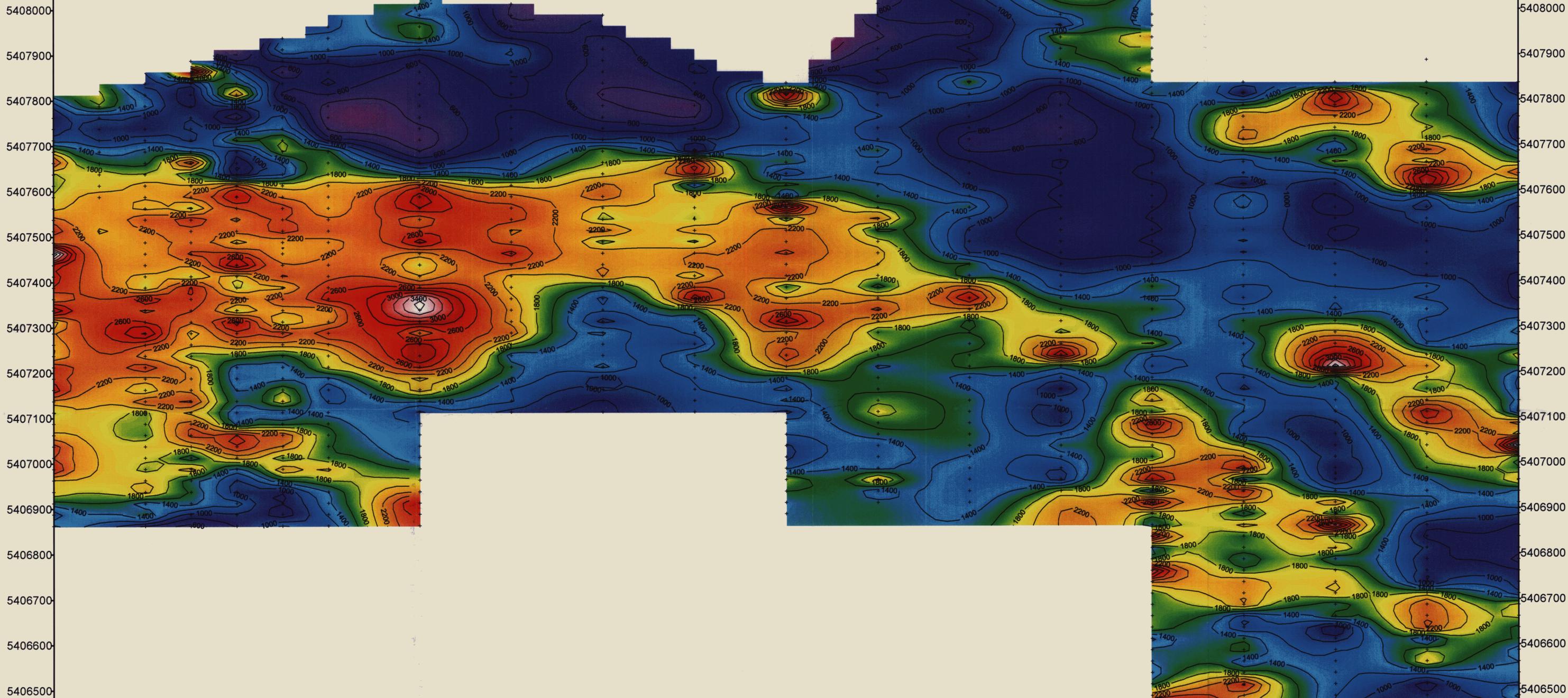
**Induced Polarisation Survey
Coloured Contours of
APPARENT CHARGEABILITY**

319069

Drawn By: Chris Dauth

Date: 17/10/96

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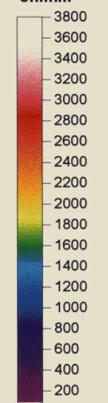


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Apparent Resistivity
ohm.m



5 cm

SCALE 1:5000



Projection: UTM
Grid: Australian Map Grid
Zone: SK/55
Datum: AGD66
Spheroid: ANS 66

97-3964

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EL EL 32/94

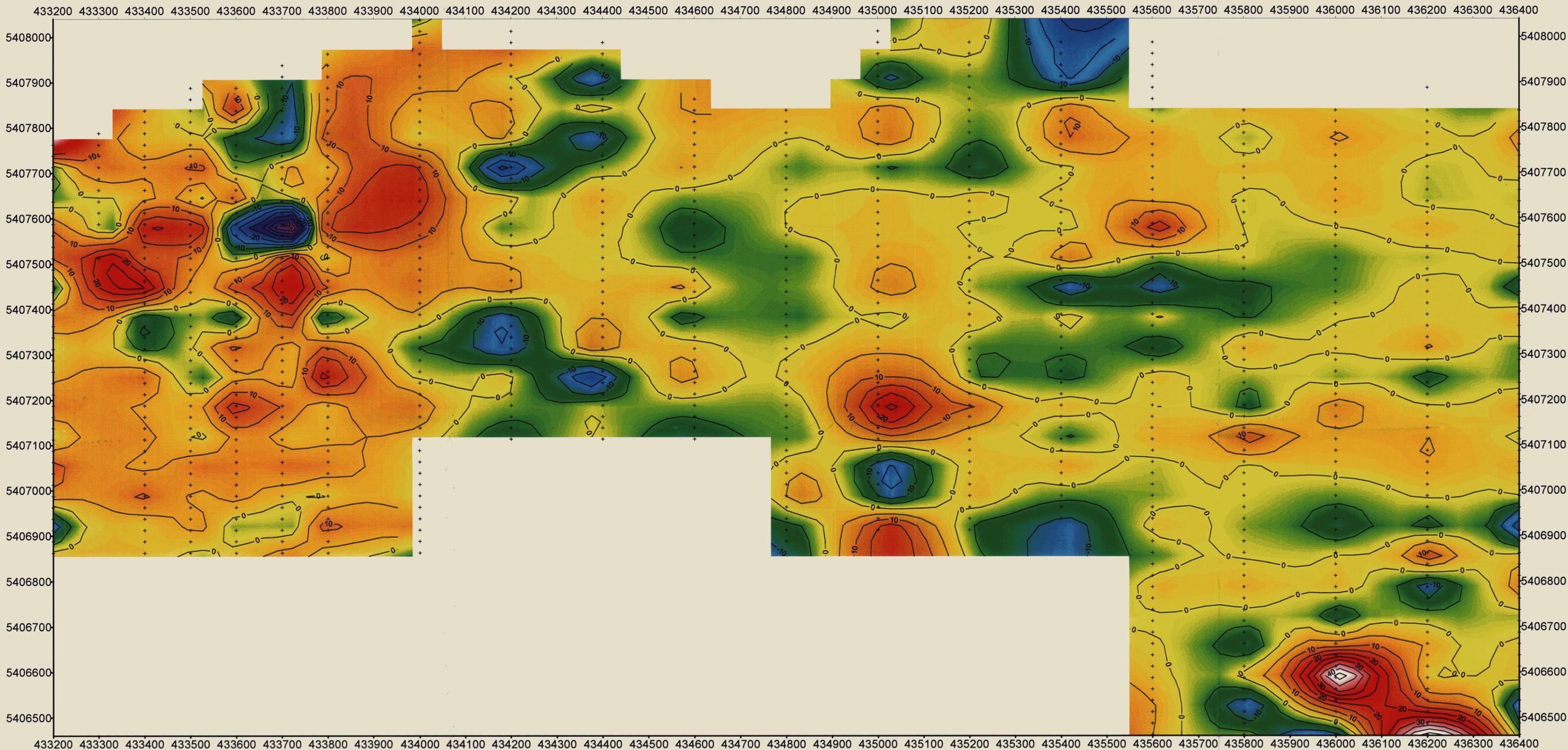
RGC EXPLORATION PTY LTD

Plan 2
GOWRIE PARK EL 32/94
NORTH WESTERN TASMANIA SK/55-NW

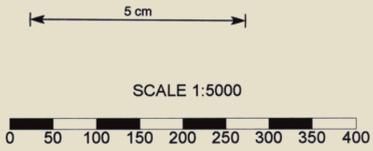
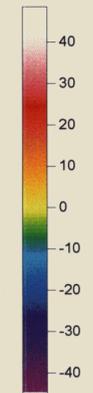
Induced Polarisation Survey
Coloured Contours of
APPARENT RESISTIVITY

Drawn By: Chris Dauth

Date: 17/10/96



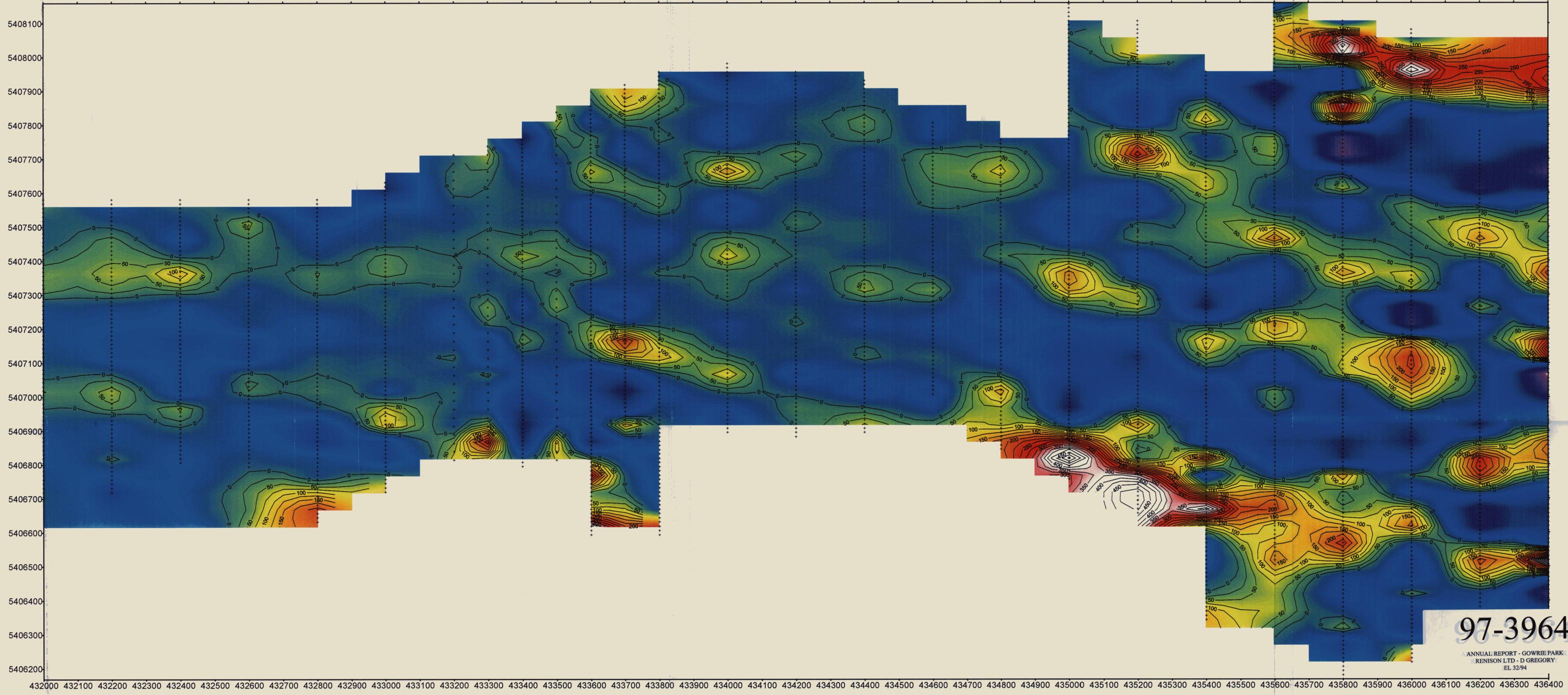
Self Potential Gradient (mV/25m)



Projection: UTM
 Grid: Australian Map Grid
 Zone: SK/55
 Datum: AGD66
 Spheroid: ANS 66

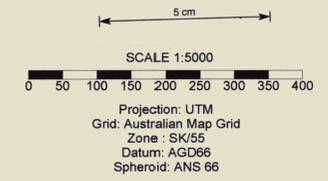
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RGC EXPLORATION PTY LTD
 Plan 3
 GOWRIE PARK EL 32/94
 ORTH WESTERN TASMANIA SK/55-NW
 Induced Polarisation Survey
 Coloured Contours of
SELF POTENTIAL GRADIENT (mV/25m)
319070



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RGC EXPLORATION PTY LTD

Plan 4

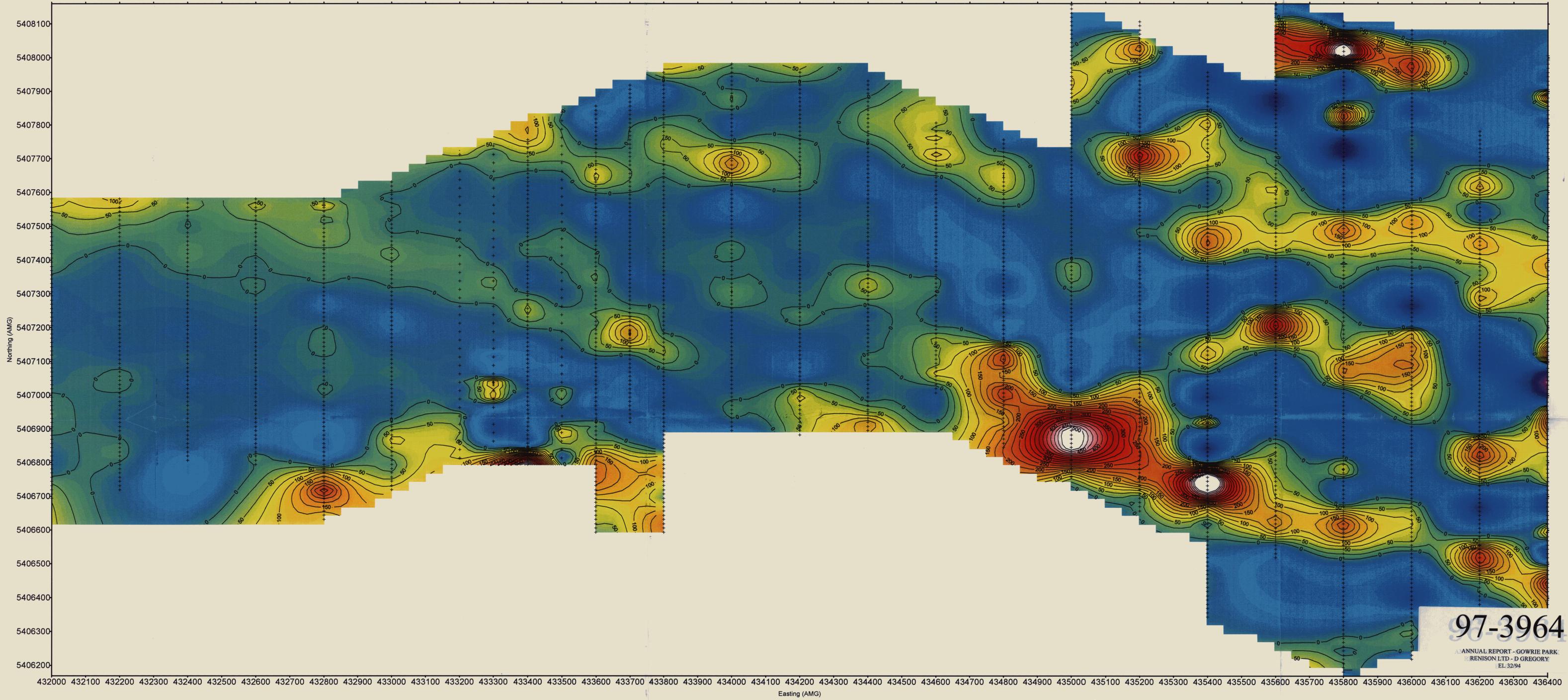
**GOWRIE PARK EL32/94
 NORTH WESTERN TASMANIA SK/55-NW**

**VLF-EM SURVEY
 Contours of
 FRAZER FILTERED VERTICAL IN PHASE COMPONENT**

319071

Drawn By: Chris Dauth

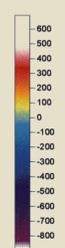
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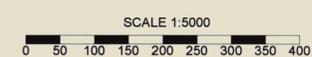
97-3964

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 RENISON LTD - D GREGORY
 EL 32/94

Frazer Filtered VLF



5 cm



SCALE 1:5000

Projection: UTM
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RGC EXPLORATION PTY LTD

Plan 5

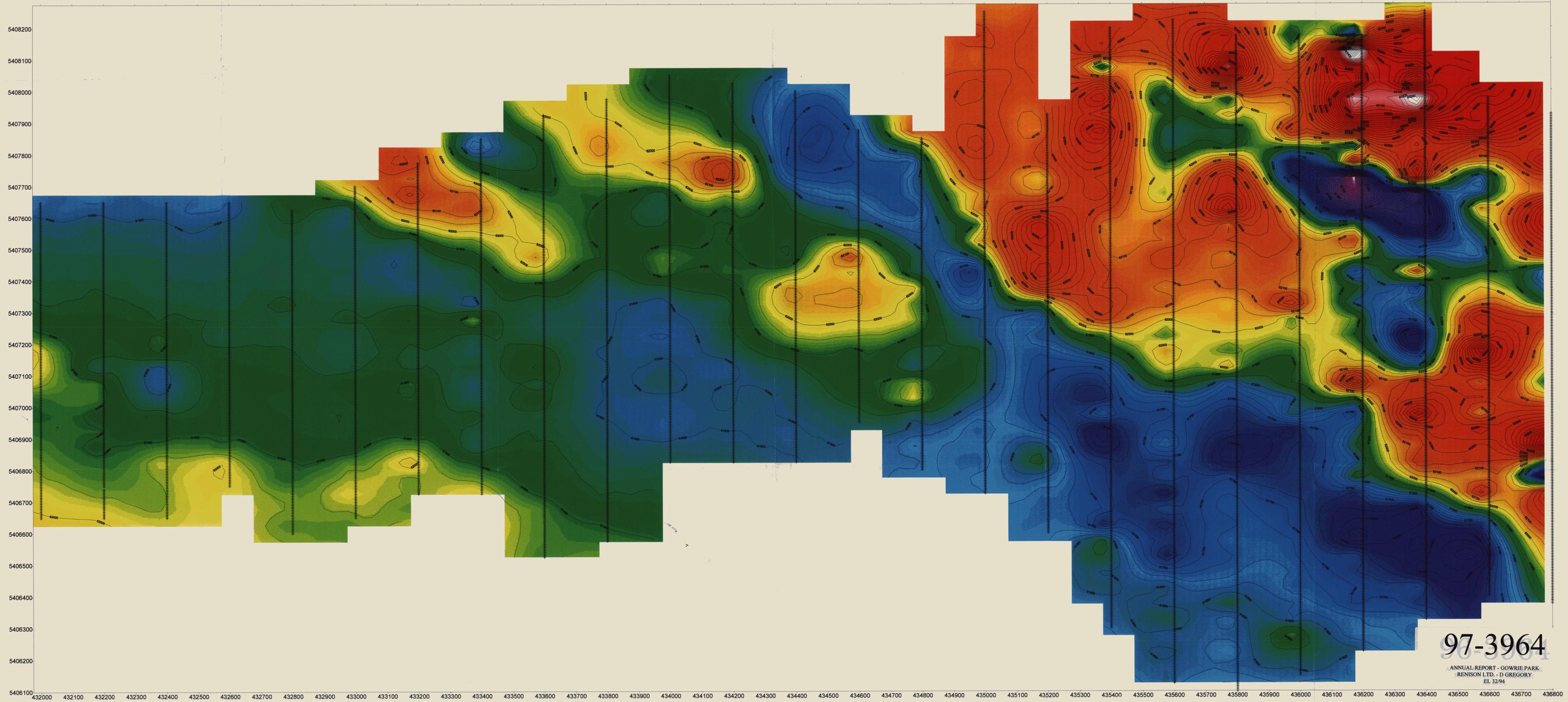
**GOWRIE PARK EL32/94
 NORTH WESTERN TASMANIA SK/55-NW**

**VLF-EM SURVEY
 Contours of
 FRAZER FILTERED VERTICAL OUT OF PHASE COMPONENT**

319072

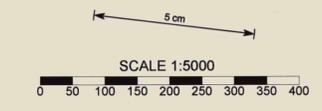
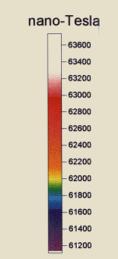
Drawn By: Chris Dauth

Date: 17/10/96



97-3964

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 RENISON LTD. - D GREGORY
 EL 32/94



Projection: UTM
 Grid: AMG
 Zone: SK/55
 Datum: AGD66
 Spheroid: ANS66

RGX EXPLORATION PTY LTD

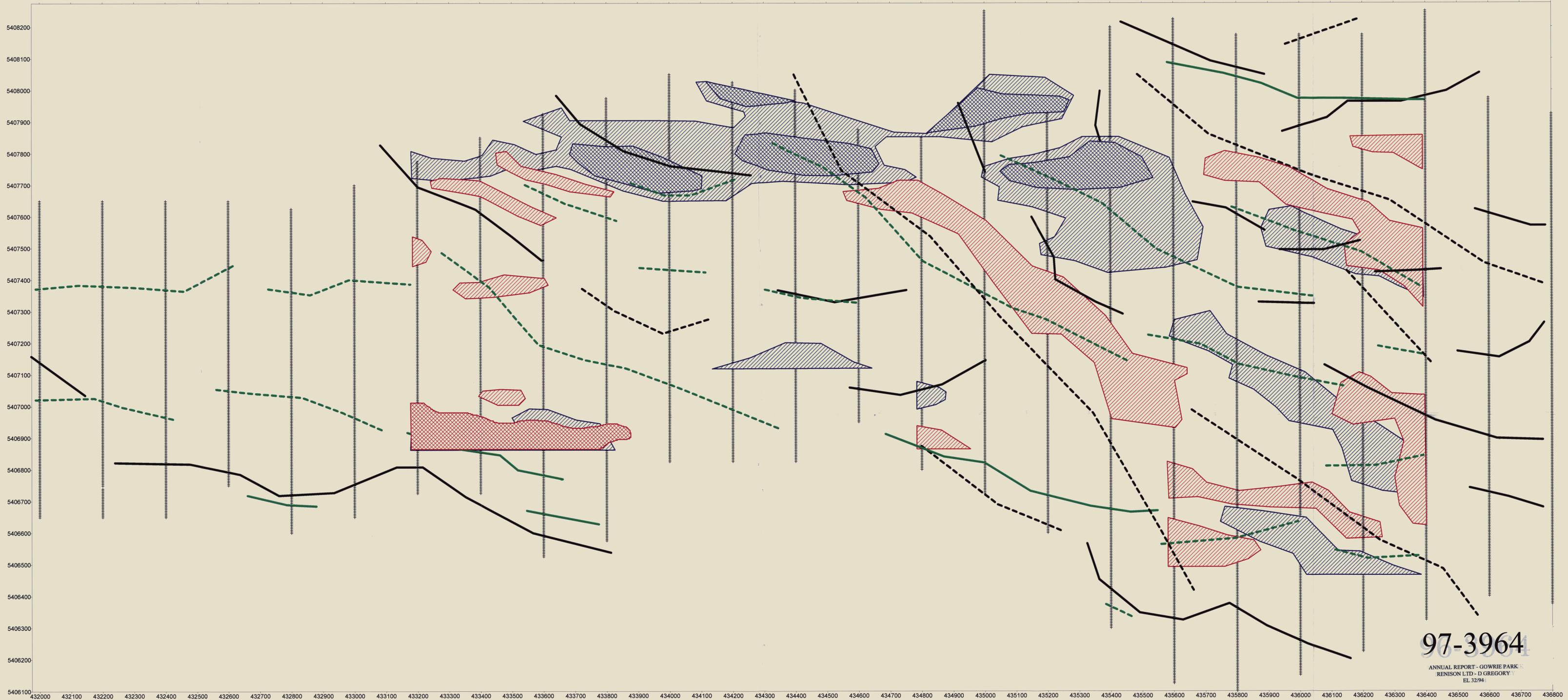
Plan 6

GOWRIE PARK EL32/94
 NORTH WESTERN TASMANIA SK/55-NW

GROUND MAGNETIC SURVEY
 Contours of
 CONTOURS OF REDUCED TO POLE TMI

319073

Drawn By: Chris Dauth Date: 26/10/96

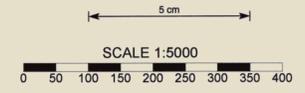


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ANNUAL REPORT - GOWRIE PARK
 RENISON LTD - D GREGORY
 EL 32/94

LEGEND

- High amplitude magnetic lineament
- Zone of demagnetisation
- Strong VLF anomaly
- Weak VLF anomaly
- Anomalous chargeability
- Elevated background chargeability
- Anomalous resistivity (low)
- Lower background resistivity



Projection: UTM
 Grid: AMG
 Zone: SK/55
 Datum: AGD66
 Spheroid: ANS66

RGC EXPLORATION PTY LTD

Plan 7

GOWRIE PARK EL32/94
 NORTH WESTERN TASMANIA SK/55-NW

GEOPHYSICAL COMPILATION
 LOCATION OF ANOMALOUS
 GEOPHYSICAL RESPONSE

319074