GOLD FIELDS EXPLORATION PTY. LIMITED

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015001

E.L.9/66 - PART 1

TYNDALL AREA, TASMANIA

ANNUAL REPORT, 1985/86

VOLUME 1 - TEXT & APPENDICES

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GOLD FIELDS EXPLORATION PTY. LIMITED

015002

E.L.9/66 - PART I

TYNDALL AREA, TASMANIA

ANNUAL REPORT, 1985/86

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SUMMARY

This report covers the 1985-86 exploration undertaken on EL9/66, Part 1, the northwestern block of the Tyndall area in Western Tasmania. All of the work completed this season has been at the Henty Prospect, where a significant gold mineralised system occurs. Total expenditure for the 11 month period to the end of May1986 on EL9/66, Part 1, was $177,000.

A major diamond drilling programme was completed at the Henty Prospect, testing the gold mineralised system at depth and north of previous drilling. Three diamond drill holes outlined extensions of the gold mineralised system to the north and at depth, in silicified pyritic volcanics adjacent to the Henty Fault. The best intersection from this programme was in hole HP9 which obtained 17.6 g/t Au from 1.8m (true width) at a 0.5 g/t Au cut off.

Other exploration programmes carried out during 1985-86 included bedrock geochemistry using a portable percussive power auger, geological mapping and rock chip sampling, a VLF-EM survey and a dipole-dipole IP survey. These field programmes were designed to test the Henty Fault away from the area of known mineralisation. The detailed geological mapping at 1:2,000 has enabled a clear interpretation of the Henty Prospect geology. The VLF-EM survey proved useful in locating the footwall contact of the Henty Fault and the bedrock geochemical programmes have outlined surface anomalies at several locations along the footwall of the Henty Fault. The dipole-dipole IP survey was a single line survey, oriented along the length of the Fault. Two significant anomalies were recorded, one around the area of known mineralisation in the south, the other to the north, over old copper workings and an early Mt. Lyell costean. This northern IP anomaly, which has coincident bedrock geochemical anomalies, is currently being drilled by a fourth hole, HP10.

The proposed programme for 1986-87 involves continuation of the drilling at the gold mineralised zone at the Henty Prospect, where three diamond drill holes (two deep holes, with wedges and one shallow hole, to the north), totalling 1500m, are planned. Other work proposals involve a detailed study of the mineralisation at the Henty Prospect, using the available drill intersections, some preliminary metallurgical testwork and a detailed examination of the gold mineralised zone by exposing it at surface over the HP9 intersection.

At the White Spur Prospect, it is recommended that the probable southern extension of the Rosebery host horizon is tested for volcanogenic massive sulphide

mineralisation by means of a down-hole EM survey on an existing hole (WSP1), drilling one new 400m hole and carrying out a subsequent down-hole EM survey.

Additional drilling may be required to follow up encouraging results in either of the two prospects - 1000m of drilling is budgetted for this purpose. Thus, the 1986-87 exploration programme at the Henty and White Spur Prospects is expected to cost $326,500, assuming that 2,900m of diamond drilling is completed on EL9/66, Part I over the next 12 months.

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Figure 32	"	"	51N	"	"	"
Figure 33	"	"	52N	"	"	"
Figure 34	"	"	53N	"	"	"
Figure 35	"	"	54N	"	"	"
Figure 36	"	"	55N	"	"	"
Figure 37	"	"	56N	"	"	"
Figure 38	"	"	57N	"	"	"
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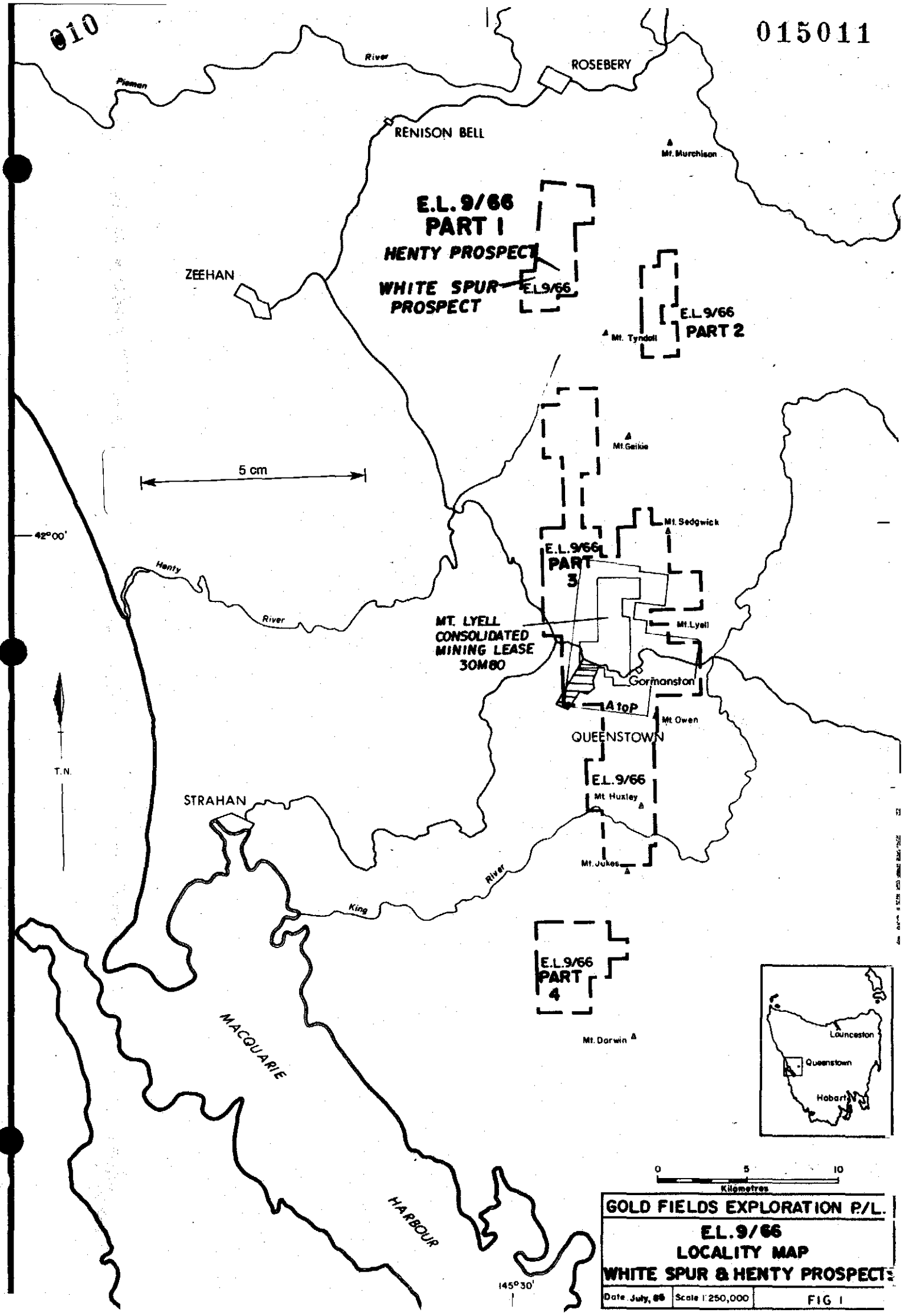
1. INTRODUCTION

The Henty and White Spur Prospects are situated in the northwestern block (Part 1) of EL9/66 (Figure 1). The 18 km² covered by this section of the licence includes steep hillsides and forested valleys, and ranges in altitude from 500m to 1100m ASL. The Henty Prospect is located alongside the Henty River, which occupies the valley between Mt. Read and The Gooseneck. The White Spur Prospect lies to the southwest (Figures 1 and 2) and is fully described in Appendix 7.

The geology of the area is dominated by the Henty Fault, a fundamental structural break that extends for tens of kilometres through Western Tasmania. The Fault strikes NNE and separates older Central Sequence volcanics in the west from younger Tyndall Group volcanics in the east. Gold mineralisation is now known to be associated with this structure over a considerable distance to the north, confirming its importance as an exploration target. At the Henty Prospect, an auriferous-sulphide zone ranging in thickness from several metres to several tens of metres, lies on the immediate footwall of the Henty Fault (mylonite-crush zone). This auriferous zone, which appears to have a complex internal structure, has now been intersected by a number of drill holes, with encouraging results.

A significant proportion of the 1985-86 Tyndall budget was spent on the Henty Prospect, where two shallow (HP8, HP9) and one deep (HP7) holes were drilled for a total of 885m. At the time of writing this report, a fourth hole (HP10) was in progress on the northern section of the Henty Prospect. Also completed during this season's field programme at Henty were: a dipole-dipole IP orientation study and subsequent "along-strike" survey, VLF-EM traverses over lines 45N to 65N, a continuation of last season's Wacker bed rock geochemical sampling along selected lines, and geological mapping at 1:2,000 throughout the prospect. No exploration was undertaken at White Spur during the 1985/86 season, however diamond drilling is proposed for the 1986-87 season (see Appendix 7). Exploration on the remainder of EL 9/66 (Parts 2, 3 and 4) is covered in a separate report (FitzGerald, 1986).

Construction of the Henty Dam, part of the Henty-Anthony Hydro-Electric Development Scheme, began in earnest during late 1985. The excavations made for the various roads and general works have exposed large areas of



GOLD FIELDS EXPLORATION P/L.

E.L. 9/66

LOCALITY MAP

WHITE SPUR & HENTY PROSPECTS

Date July, 66	Scale 1:250,000	FIG 1

bedrock in the southern part of the Henty Prospect, greatly facilitating mapping in this area. The HEC will continue to be active in the Henty area until the completion of their scheme, in 1988. A plan illustrating the major elements of the Henty Dam part of the Scheme is shown as Figure 2.

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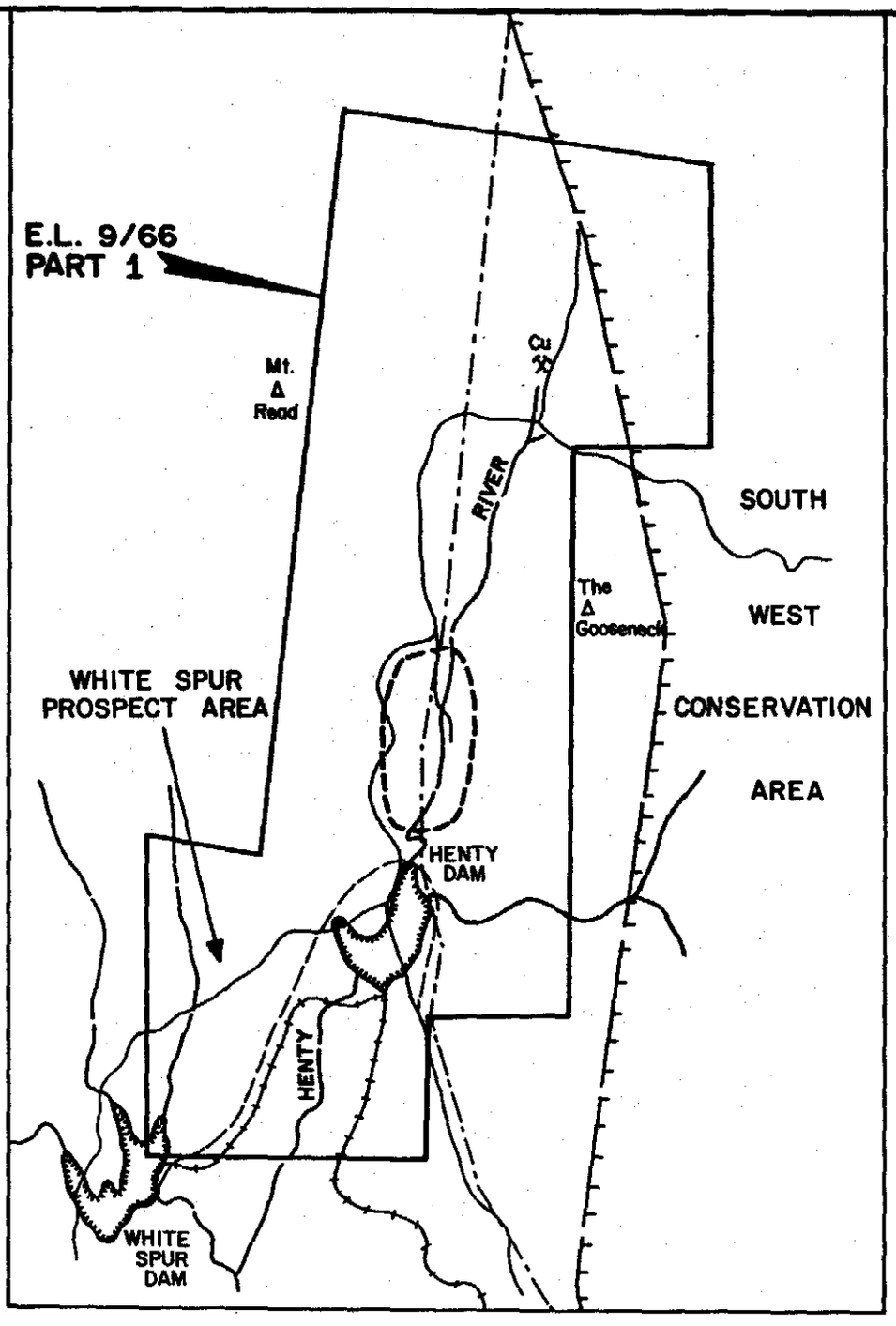

LEGEND

- EXISTING ROADS
- NEW ROADS
- HENTY PROSPECT : AREA COVERING RECENT DRILLING ACTIVITY
- CANALS
- NEW TRANSMISSION LINE
- OLD WORKINGS
- S.W. CONSERVATION AREA BOUNDARY (AND EXISTING TRANSMISSION LINE)
- H.E.C. DEVELOPMENTS : LAKE AND DAM

5 cm

GOLD FIELDS EXPLORATION PTY. LIMITED

E.L. 9/66 PART 1

HENTY - ANTHONY H.E.C. DEVELOPMENTS WITHIN

DRAWN BY : T.C.
DRAFTSMAN: T.G.D.S
DATE : June '85
REVISIONS :
FILE NO.

SCALE 1:50000 (800 0 1000 Metres)

FIG. 2

A 12548

2. LAND TENURE

EL9/66, the original licence covering the Henty Prospect, was granted in 1966. Over the next ten years, three further licences were granted in the Queenstown area; these were all amalgamated into one licence (EL9/66) in 1978. In 1983, the licence area was reduced from 637 km² to 446 km², and in 1984 it was further reduced to the 124 km² currently held by RGC. As shown in Figure 1, the licence consists of four parts, the northwesternmost one covering the Henty Prospect.

In 1976, EL9/66 became the subject of a Joint Venture Agreement with Getty Oil. In January 1985, Getty Oil ceased contributing to the Joint Venture and began diluting its interest. Later that year, Little River Goldfields NL acquired this interest in EL9/66 from Getty, and have also chosen not to contribute to date.

Under the current EL tenure conditions, the licence must be relinquished by August 1987.

3. EXPENDITURE

Expenditure on the Henty Prospect Area (EL9/66, Part 1), in the eleven months to the end of May 1986 amounted to $177,000. A total of $486,300 was spent on the entire Tyndall Licence (EL9/66, all Parts) over the same period.

Expenditure details for the Henty Prospect are listed in Appendix 1. For details of expenditure on the other parts of the licence, see FitzGerald (1986).

4. PREVIOUS EXPLORATION

Exploration at the Henty Prospect began in 1968-69 when a quarter-mile spaced grid was established in the area, the target being sheared Mt. Read Volcanics, thought to host Mt. Lyell-style mineralisation (Newnham, 1969). This grid was mapped, soil sampled and covered with low-quality ground geophysical techniques in the late sixties (McKibben, 1971), but further work was not recommenced until 1972, when small, old copper workings were discovered in the north of the area (McKibben, 1972). Costeaning at these workings yielded 1.22% Cu over 40 feet in pyrite-chalcopyrite-bearing chloritic schists. These results rekindled interest in the area and infill gridding, mapping and geophysics, including IP, were then undertaken (Wells, 1973). The latter produced eight IP anomalies which were followed up with soil sampling during 1973-74. Several geochemical anomalies coincident with the IP responses were found, and these were costeaned and/or drilled (Wells, 1974). A costean over the central anomaly (Line 49N) revealed semi-massive sulphides 2-4m wide, which assayed 1.8% Cu, 1.8% Pb and 0.2% Zn. A total of six holes were completed, HFZ 1 to 2 under the old copper workings to the north, HFZ 3 to 4 into an anomaly in the south and HFZ 5 to 6 under the costean. Of these holes, only HFZ6 was considered successful, as it intersected a narrow massive sulphide body. Further, detailed soil sampling and IP surveys were also made in the costean area, in 1974 (Wells, 1974).

As the mineralisation discovered was thought to be conformable bedded massive sulphides, angular relationships inferred between the Henty Fault and the host Tyndall Group rocks suggested at the time that the available space for the development of a sizeable deposit was severely limited to the north (Wells, 1974). Therefore, in 1974-75, the emphasis moved to the south where HFZ 7 and 8 were drilled with discouraging results (Stevens-Hoare, 1975). Apart from a small mapping programme in 1975 (Sevens-Hoare, 1976), and a small applied potential survey in 1979-80 (Meares et. al., 1980), exploration at the Henty Prospect ceased until 1982-83.

A review of the available data in 1982-83 (Purvis et. al.(i), 1983) suggested that the previously inferred structural constraints on the potential size of the mineralised body may not exist. Consequently three more holes (HFZ 9 to 11) were drilled. Two of these (HFZ 9 and 10) obtained thin massive sulphide intersections with significant gold values. In addition, a second

mineralised zone containing auriferous pyritic mineralisation was recognised in HFZ10 (Purvis et. al., 1983ii).

In 1983-84 a further hole, HFZ12, was drilled south of and deeper than HFZ10, to test both gold bearing zones. The results were disappointing as both zones were thin and low grade (Roberts and Cartwright, 1984).

The Tyndall licence was reduced in area to its presesnt configuration (Figure 1) in 1984, in accordance with the new Mines Department regulations. A brief review of the available data at this stage (Roberts and Cartwright, 1984) led to the recognition of an unassayed, potentially gold-bearing zone in HFZ5. Gold assays of this zone were most encouraging, and consequently a major exploration programme was completed at the Henty Prospect in 1984-85 in an attempt to delineatethe extent of this auriferous pyritic system.

The exploration programme undertaken in 1984-85 (FitzGerald and Pease, 1985) consisted of: a re-examination of existing core, in particular re-assaying and relogging selected sections of the old drill holes; diamond drilling six holes (HP1 to HP6) and three second cut wedges for a total of 2470m; a large bedrock sampling programme using the Wacker (portable, percussion) power auger over the projected outcrop of the mineralised zone; and limited geological mapping up cleaned-out creeks. The results of this programme confirmed the presence of the mineralised zone over a significant strike length (greater than 900m) and maintained the high prospectivity of the Henty area.

5. WORK COMPLETED AND RESULTS, 1985-86

A two-fold approach to exploration of the Henty Prospect was taken in 1985-86. FitzGerald and Pease (1985) recommended that:

(i) the definition of the extent of the known mineralisation be improved, and

(ii) the other targets elsewhere within the licence (Part 1) along the Henty Fault, be defined.

To assist in achieving both of these objectives, geological mapping, rock chip sampling and VLF-EM programmes were undertaken. Also, the "Wacker" sampling coverage from the 1984-85 field season was extended to both the north and the south. To search for additional targets along the Henty Fault, a dipole-dipole IP survey was completed, after a smaller, initial orientation survey. A total of three diamond drill holes (HP7 to HP9) have been completed, extending the area of known auriferous mineralisation both to the north and at depth. A fourth hole, HP10, is currently in progress, testing a target generated by the dipole-dipole IP survey.

5.1 Geology

Detailed geological mapping at 1:2,000 over the entire length of the Henty Fault Zone within the licence was completed this season. Preliminary outcrop geology maps were drawn from mapping traverses along re-cleared grid lines, cleared out creeks, existing roads and the new exposures created by the HEC towards the south of the area. Interpretative geological plans were then constructed from these maps and these are presented as Figures 3 to 5. Rock chip samples were also taken as the various exposures were mapped, and their descriptions and assays are given in Appendix 2. All sample locations and assay results are shown on the geochemical plans (Figures 6 to 23).

The results of this programme of detailed mapping and sampling have not significantly changed the geological interpretation. Contacts between the various units have been defined more accurately but the contact relationships and rock types are predominantly as described in the 1984-85 Annual Report (FitzGerald and Pease, 1985). Several modifications have been made, however, and these are as follows:

(i) the Owen Conglomerate has been subdivided into two major types, which differ in both composition and structure. At the northern end of The Gooseneck, the Owen Conglomerate is made up of coarse bedded conglomerate with a significant component of hematitic pebbles and forms a synclinal structure, plunging to the south. At the southern end of The Gooseneck, the conglomerate lacks the hematitic clast component and is part of the more basal Newton Creek Sandstone Member of Corbett (1974). It appears likely that the contact between the two conglomerates is a fault and may possibly be the northern extension of the Great Lyell Fault.

(ii) the lithic volcaniclastics that contain the mineralisation at the Henty Prospect have been extended to the north and south. Although this horizon is shown on Figures 3 to 5 to be separate from the volcaniclastics of the Tyndall Group, they are actually the same unit; the alteration and mineralisation has been used to differentiate between the two. The mineralised horizon appears to pinch out between the Henty Fault and the quartz porphyry lavas to the north, and seems to wedge out against the South Henty Fault to the south.

(iii) the Henty Fault has been subdivided into a mylonitic zone and a crush zone. Together, these zones are approximately 40m thick and the crush zone (the thinner of the two) occurs on the eastern, footwall side of the mylonite zone. The two zones persist from the north of the area mapped to where the Henty Fault bifurcates into a northern and southern branch. Both of these structures are relatively tight, with small pug zones less than a metre wide developed between unaltered, moderately foliated wallrocks.

5.2 Geochemistry

In addition to the rock chip samples taken and assayed during the mapping programmes, an extension of the 1984-85 bedrock sampling programme was also completed, over lines 43N-45N, 55N, 60N, 63N and 65N. As with the original phase of sampling, N. Poltock's Wacker percussive auger was used, and samples were taken at 5m intervals. In general,

the sampling depths averaged around 2.0m to 3.0m, indicating that the technique was reaching bedrock. The samples were assayed for Au, Ag, As, Cu, Pb, Zn and Bi, the results of which are listed in Appendix 4, together with sample descriptions. Plots of selected elements (Au, Ag, Cu, Pb and Zn) of both bedrock samples and rock chip samples are attached (Figures 6 to 23). Composite line profiles (Figures 24 to 43) also show the results of all the bedrock sampling programmes.

The results obtained were mildly encouraging, with geochemical anomalies being detected in the footwall of the Henty Fault on many of the lines. Results from lines 45N, 44N and 43N clearly cut off the main anomalous zone to the south. In the north, results from lines 65N, 63N and 60N indicate anomalous levels of the base metals within the sheared chloritic epiclastics. Results similar to those obtained in 1984-85 on lines 53N to 54N were recorded on line 55N; base metal assays were strongly anomalous but gold values were low.

In general terms, it appears that the main gold anomalous zone extends between lines 49N and 52N (all sampled in 1984-85), with low levels of gold and anomalous base metal values persisting to the south and north.

5.3 Geophysics

Two separate geophysical techniques were used at the Henty Prospect in 1985-86, to overcome two different problems. Firstly, a VLF-EM survey was undertaken in conjunction with the geological mapping programme to accurately fix the position of the Henty Fault, as exposures of the Fault were extremely limited. Secondly, a dipole-dipole IP survey was completed to evaluate the potential of the entire length of the Henty Fault within EL9/66, Part 1. A geophysical approach to this problem was chosen because of the prohibitive cost of large bedrock sampling programmes and the presence of deep scree (from The Gooseneck) covering the Fault in places. An IP technique was chosen as the disseminated sulphide mineralisation is not readily detected by EM techniques, but had responded well, locally, to earlier gradient array surveys. The dipole-dipole array was chosen in preference to gradient array because it is considered better at resolving relatively deep chargeable sources.

5.3.1 VLF-EM Survey

The VLF-EM survey was carried out on lines 43N to 60N, 63N and 65N. Readings were taken at 10m stations along the 200m to 300m sections of the lines thought to cover the Henty Fault. Profiles showing the VLF-EM results are displayed in Figures 24 to 43.

In general, the technique was successful in locating the Henty Fault structure. An anomaly was also obtained over the lens of known massive sulphide mineralisation on line 49N. The results of the VLF-EM have been used in locating the Henty Fault on the interpretative geological plans (Figures 3 to 5).

5.3.2 Dipole-Dipole IP Survey

This survey was begun with an initial test early in the season along lines 50N and 51N, by Mitre Geophysics. Two data sets were collected on each line, one using 20m dipoles, the other 50m dipoles. Analysis of the data collected (shown on Figure 44) indicated that the fault position and near surface mineralisation could be detected, but it seemed that the 50m dipole configuration was not detecting deeper mineralisation (e.g. the HP4 intersection) and larger dipoles would be required to achieve this. However, larger dipoles in the standard across-strike configuration were considered to be impractical for two reasons:

(i) the difference between the size of the dipole and the width of the target would increase to a level where volumetrically the sulphide mineralisation would be insignificant within the test area, and would therefore become undetectable.

(ii) across-strike at the Henty Prospect also means across-relief, and the severe topography would produce apparent resistivity effects of its own, again severely downgrading the potential for detecting mineralisation.

Therefore, an along-strike configuration was suggested by Mitre Geophysics, as it was thought to have a number of advantages:

(i) The full length of the Henty Fault could be tested, rather than selected cross-sections.

(ii) Volumetrically, the sulphide concentrations should be significant within the array.

(iii) The potential for current channelling down the sulphide zone should enhance the deep seeking requirement.

The disadvantages of this system were considered to be:

(i) Loss of positional control in cross-section (i.e. at right angles to the fault)

(ii) Difficulty in interpretation

(iii) High degree of geological control required.

The detailed geological mapping programme and the VLF-EM survey provided sufficient geological control for this survey to be undertaken, and a 6 km long geophysical base line (shown on Figures 3 to 5) was cut.

The first stage of this IP survey was an orientation programme over the base line covering mineralisation defined by drilling to date (between lines 46N and 51N). This section was covered using four dipole spacings (50m, 100m, 150m and 200m) by Solo Geophysics. All configurations defined the lateral extent of the mineralised zone, with greatest detail being generated by the 50m array, broadening to a "trouser-leg" anomaly through to the 200m array. The 150m array was considered to provide the most useful set of data and this array was used in the rest of the survey to the north and south.

In general, the results obtained from the dipole-dipole IP confirmed those of the earlier gradient array surveys, with only two major anomalies being defined; the northern anomaly in the region of line 63N and the southern anomaly over the drilled zone (lines 50N to 47N). Anomalous chargeabilities were also found to the south of line 47N, but these are attributed to the shales present in the unit between the North and South branches of the Henty Fault.

A detailed report describing the survey is provided by Mitre Geophysics in Appendix 4, which also contains pseudosections of the two major anomalies.

5.4 Drilling

Three diamond drill holes (HP7 to 9), designed to test the main Henty mineralised zone, were completed between February and mid-May 1986 for a total 885m. Since then, a fourth hole (HP10) has been in progress testing the northern IP anomaly, near the old copper workings on line 63N. Drill holes HP8 to 10 have been drilled with a Longyear 38 rig and hole HP7 was drilled using a Longyear 44 rig, all with ground-support.

As drill hole HP10 had not been completed at the time of writing, the results of the hole are not discussed further in this report.

All of the holes were surveyed at regular intervals using an Eastman single shot camera and their collar positions were surveyed by Renison Ltd. Hole details are presented in Table 1. The holes were logged and photographed, and sections of the core from the footwall of the Henty Fault were sampled and assayed. Petrographic examination by CMS of the mineralised zone intersected in HP9 was also made.

The drill hole locations are shown on Figures 3 to 5, and full logs, profiles, petrographic descriptions and assays are given in Appendices 5 and 6. In addition, where appropriate, some holes have been plotted on the Composite Profiles (Figures 24 to 43).

Hole No.	Collar Co-Ordinates mN	mE	Collar RL m	Dip °	Bearing (AMG)°	Length m
HP7	5363978	379883	624	-65	078	497.5
HP8	5364164	380091	591	-45	095	197.4
HP9	5364263	380135	612	-57	056	190.0

Table 1 Henty Project - Diamond Drilling Completed 1985-86

Drill hole HP7 was a relatively deep hole, and was designed to test for gold mineralisation at the 300m RL, beneath holes HP4 and HP1. A strongly mineralised system was intersected in the footwall of the Henty Fault. Although this appeared a promising intersection with abundant visible base metal mineralisation, the assays were not encouraging, however anomalous gold values were obtained over a wide interval (19.0m down-hole at 0.79 g/t).

Drill holes HP8 and HP9 were shallow holes, designed to test ground at the 500m RL, between the surface geochemical anomalies on lines 51N and 50N, above holes HP4 and HP6. The first hole, HP8, intersected a narrow, weakly mineralised system, which had been partially fractured by the Fault. The best gold assays obtained from this hole averaged 0.94 g/t over 3.0m down-hole. The second hole, HP9, intersected a slightly wider but more strongly mineralised system, which in places resembled mineralisation encountered in HFZ5. Assaying of this mineralisation produced good results, with a good intersection of 8.5m (down-hole) averaging 6.4 g/t, including 3.0m (down-hole) at 17.6 g/t. A petrographic examination of the latter zone indicated the presence of coarse gold associated with several phases of quartz-carbonate veining in several samples.

These results confirm the variable and patchy nature of the gold mineralisation at the Henty Prospect. They also show that the system continues to be strong to the north and at depth. A summary of all the drilling results from all of the holes completed at the main mineralised zone of the Henty Prospect is given in Tables 2 and 3. The data presented in these tables was used in the construction of a longitudinal projection at 1:1,000 scale (Figure 45). Cut-offs at grades of 0.1 g/t and 0.5 g/t were used. Also, a structure contour plan showing the footwall of the Henty Fault and the foot and hanging walls of a 'gold mineralised zone' was drawn (Figure 46). This gold mineralised zone represents the entire width of elevated gold grades encountered in each hole, and therefore contains sections with poor gold grades between high grade intersections. It was necessary to use this approach when drafting the structure contours, as the Zone A-Zone B system of FitzGerald and Pease (1985) would have been extremely difficult to contour.

The main features that can be seen on Figure 46 are the following:

(i) the hanging wall of the mineralised zone closely follows the footwall of the Henty Fault, particularly nearer the surface. In many places the mineralised zone is actually caught up in the Henty Fault.

Hole No.	Interval (m) From	To	True Width (m)	Fire Assay Au (g/t) 0.1 g/t Cut Off
HFZ 5	125.0	130.9	5.2	7.9
HFZ 6	114.6	115.2	0.5	2.0
	129.5	132.6	2.5	0.6
HFZ 9	261.9	262.9	0.9	1.4
HFZ 10	208.9	209.6	0.6	7.2
	211.0	213.0	1.7	0.2
	238.0	243.6	4.8	1.5
HFZ 12	326.0	328.0	1.3	0.2
	340.0	346.0	4.0	0.2
	367.0	368.0	0.7	0.2
	451.5	457.8	4.2	0.6
HP 1	298.0	310.0	11.2	0.3
	312.0	313.0	0.9	1.1
	326.0	331.0	4.7	1.4
HP 2	459.0	462.4	3.4	3.1
	516.0	520.0	4.4	0.2
HP 2A	516.0	517.0	1.0	0.1
HP 4	226.3	229.0	2.4	0.5
	232.0	239.0	6.3	7.9
	245.0	263.0	16.2	2.9
HP 4A	323.0	237.0	4.5	4.2
	245.0	250.0	4.5	1.0
	251.0	253.0	1.8	0.2
	254.0	262.0	7.2	2.0
HP 5	234.1	235.1	0.8	0.3
	238.1	240.1	1.6	0.1
	246.1	255.1	7.4	0.2
HP 5A	246.4	255.4	7.4	0.2
HP 6	260.8	261.8	0.9	0.2
	272.8	279.8	6.0	2.4
	284.8	285.8	0.9	0.1
HP 7	363.0	382.0	14.8	0.8
	409.5	410.5	0.8	0.2
	404.0	408.7	3.7	0.5
HP 8	103.2	106.8	3.3	0.8
	116.5	117.5	0.9	0.1
HP 9	112.6	113.4	0.5	0.1
	116.0	118.0	1.2	0.1
	127.0	135.5	5.0	6.4

Table 2 Drilling results from completed holes at the Henty Prospect, using a 0.1 g/t Au cut off.

Hole No.	Interval (m) From	To	True Width (m)	Fire Assay Au (g/t) 0.5 g/t Cut Off
HFZ 5	125.0	130.9	5.2	7.9
HFZ 6	114.6	115.2	0.5	2.0
	129.5	132.6	2.5	0.6
HFZ 9	261.9	262.9	0.9	1.4
HFZ 10	208.9	209.6	0.6	7.2
	242.1	243.6	1.3	4.6
HFZ 12	451.5	456.0	3.0	0.7
HP 1	299.0	300.0	0.9	0.7
	309.0	310.0	0.9	1.0
	326.0	328.0	1.9	2.6
	329.0	330.0	0.9	1.4
HP 2	459.0	461.0	2.0	4.5
	519.0	520.0	1.0	0.5
HP 4	232.0	234.0	1.8	0.8
	235.0	238.0	2.7	17.6
	246.0	248.0	1.8	1.3
	249.0	250.0	0.9	1.4
	256.0	262.0	5.4	7.7
HP 4A	234.0	236.0	1.8	10.2
	246.0	247.0	0.9	1.8
	248.0	250.0	1.8	1.1
	255.0	257.0	1.8	0.9
	258.0	262.0	3.6	3.4
HP 5A	250.4	251.4	0.8	0.6
HP 6	273.8	276.8	2.6	4.2
	277.8	278.8	0.9	0.9
HP 7	364.0	365.0	0.8	1.8
	371.0	376.0	3.9	1.9
HP 8	105.2	106.2	0.9	2.2
HP 9	128.0	131.0	1.8	17.6

Table 3 Drilling results from completed holes at the Henty Prospect, using a 0.5 g/t Au cut off

(ii) the footwall of the mineralised zone although generally parallel to the other contours, is steeper. Consequently with increasing depth, the mineralised zone becomes wider. The footwall of the zone is only affected by the Henty Fault in the vicinity of HFZ11. Here, the entire mineralised zone is believed to have been faulted out.

(iii) all three sets of contours dip regularly over most of the drilled zone, except in the HP9 to HP6 area where both the Henty Fault footwall and the mineralised zone steepen appreciably.

The longitudinal projection shown in Figure 45 is actually a projection of the entire sulphide-bearing zone in the Henty Fault footwall (i.e. from the Fault footwall or the start of the mineralised zone through to the end of the strong sulphide alteration system). Also shown is the significant gold mineralisation zone. The longitudinal projection line is displayed on Figure 46.

6. CONCLUSIONS

The 1985-86 exploration programmes at the Henty Prospect were undertaken for two main reasons:

(i) to improve definition of the extent and grade of gold mineralisation within the zone in the Henty Fault footwall, and

(ii) to explore the Henty Fault system throughout the remainder of EL9/66, Part 1 and define target zones along the Fault. In order to achieve the objectives a major field programme was completed in addition to a sustained drilling programme.

The field programme consisted of geological mapping, rock chip sampling and VLF-EM, all of which have been used in successfully constructing detailed geological maps of the licence area. While the general geology of these maps is little different from the pre-existing ones (Corbett, 1974; 1984), the detailed and accurate location of many features such as the Henty Fault has been invaluable in assessing the potential of the area. The geochemical and geophysical surveys were used to evaluate the prospectivity of the Henty Fault system; the former technique primarily around the known mineralisation and the latter as a reconnaissance technique along the remainder of the Fault. Bedrock geochemical anomalies were found to be best developed over the known mineralisation (lines 49N to 52N), but significant base metal anomalies also extend to the north and south for approximately 500m in both directions. The dipole-dipole IP survey also successfully outlined the known auriferous, pyritic mineralisation. A similar, but less intense anomaly was discovered on line 63N, near the old copper workings in the north. This northern anomaly, which has a weak, coincident bedrock geochemical anomaly, is currently being drilled (HP10).

The results of the drilling programme completed this season were mixed. Two of the holes, HP7 and HP8, returned poor gold assays from the mineralised zone, whereas HP9 produced a good gold intersection. This latter result has opened potential to the north (and at shallow depths) under the bedrock geochemical anomalies extending to the quartz porphyry lavas on line 54N. Other prospective areas within the mineralised zone that remain untested are at depth, below HP4 and beneath HFZ9. A smaller, more limited prospective

section lies to the south, above HP2 to HFZ12. Here, surface bedrock geochemical anomalies also persist, however gold values are poor.

EL9/66 is due to be relinquished in August 1987. It is now felt that the exploration programmes completed this season have fully tested the area outside the main mineralised zone, and that the remaining gold potential of EL9/66, Part 1 lies primarily within this mineralised zone and secondly at the northern anomaly.

7. RECOMMENDATIONS

7.1 Henty Prospect

It is proposed that three diamond drill holes be completed at the Henty Prospect in 1986-87, to test for extensions, both at depth and to the north, of the gold mineralised system. Two deep holes (each 600m long) with subsequent wedge second cuts, if required, should be drilled beneath and between HP5 and HFZ9, as shown on Figure 45. A shallow hole (200m long), also shown on Figure 45, is proposed to the north of HP9. It is anticipated that this drilling programme will total 1500m. Depending on the success of these drill holes (and HP10 currently in progress), further holes may be drilled; the proposed budget (Appendix 1) was constructed on the assumption that a further 1000m may be required. The initial 1500m drilling programme is planned to be finished by the end of 1986. All the drilling should be ground supported.

It is recommended that a close examination of the gold mineralised system at the surface be carried out. To achieve this, the ground at line 51N (over the HP9 intersection) should be cleared and the bedrock across the mineralised zone exposed. It is hoped that this will substantially improve our knowledge of the internal structures and mineralisation styles of the zone.

Early in 1987, at the completion of the proposed drilling programme, a detailed study of all geological aspects of the mineralisation at the Henty Prospect should be carried out, using all the available drill core. This work should assist in determining the ultimate ore potential of the Henty mineralised system.

Finally, some preliminary metallurgical testwork should be undertaken as and when sufficient drill core is available. Petrological studies of gold mineralisation to help guide such testwork should continue.

7.2 White Spur Prospect

A detailed explanation of the geology and ore potential of the White Spur area is given in Appendix 7. In summary, the White Spur area is considered prospective for volcanogenic massive sulphide deposits,

primarily because it is underlain by the probable southern extension of the Rosebery host horizon. Detailed mapping at White Spur by F. FitzGerald (Roberts and Cartwright, 1984) has revealed a complex sequence of variable altered (sericitised) pyroclastics and epiclastics containing a particular (possible host) horizon of strongly altered epiclastics.

Soil geochemistry results are generally patchy with some high base metal values, and a gradient array IP anomaly coincides with the southern part of the altered epiclastic unit. This unit, which has a strike length greater than 1 km, has only been tested by one drill hole (WSP1) which obtained minor, disseminated sulphides.

One additional diamond drill hole is proposed at this prospect in 1986-87. Prior to a final decision on the hole's location, the first hole (WSP1) should be unblocked and surveyed with down-hole EM. If this survey reveals a conductive body nearby, then it should be tested with the proposed hole. If the survey's results are negative, then the hole should be drilled 400m to the north of WSP1, as recommended in Appendix 7. Either way, the hole is expected to be approximately 400m long. Once the hole is complete, it should also be surveyed with down-hole EM. Consideration should also be given to surveying both holes with down-hole IP.

If the hole is drilled at the northern site, then once the down-hole geophysics has been completed, approximately 700m of the potential host horizon's 1km strike length will have been tested to more than 200m depth.

The proposed budget for 1986-87 amounts to $326,500 (see Appendix 1), and is designed on the assumption that 2,900m of diamond drilling will be completed on Part 1 of EL9/66 during the next twelve months.

8. REFERENCES

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APPENDIX 1

EXPENDITURE 1985-86

and

PROPOSED BUDGET 1986-87

034

015035

HENTY EXPENDITURE

11 Months to End May, 1986.

Salaries, Wages and On-Costs	$ 52,200
Travel & Accommodation	800
Consultants	10,000
Contractors	45,000
Assaying	6,100
Drilling	53,800
Stores	1,500
Vehicles/Plant	5,300
Tenement	1,200
Office	1,100
	$ 177,000

GOLD FIELDS EXPLORATION PTY. LIMITED

035

015036

BUDGET 1986/87

E.L.9/66 PART 1

Salaries, Wages and On-Costs	$ 60,000
Travel and Accommodation	2,500
Consultants and Contractors	25,000
Assaying	14,000
Drilling	209,000
Stores	2,500
Vehicles/Plant	7,000
Tenement	2,000
Computing	2,000
Office	2,500
TOTAL	$ 326,500

APPENDIX 2

ROCK CHIP SAMPLE DESCRIPTIONS AND ASSAYS

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

PROJECT: Uppdell PROSPECT: Hanity SAMPLE STORAGE REQ'D: LABORATORY: DATE DISPATCHED:

1:~~250~~ 000 SHEET: H10. TYPE OF SAMPLE: Lat. Auger SAMPLE PREP. REQ'D: ANALYSIS REQ'D: DATE RECEIVED:

037

A1996

SAMPLE NUMBER	LOCATION		DESCRIPTION	ANALYSES								
				Ag	As	Cu	Pb	Zn	Bi	Ba		
T1174			Sil · clay - (Chlorite) grey green clastic	<0.005	<0.1	3	<1	23	<1	185		
T1175			Chlorite. f.g. compact clastic.	"	"	1	<1	22	<1	210		

0150038

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

PROJECT: Tyndall — PROSPECT: Herty — SAMPLE STORAGE REQ'D: — LABORATORY: Analabs — COLLECTED BY: CP

1:~~250~~2.000 SHEET: H10 — TYPE OF SAMPLE: Soil, Auger — SAMPLE PREP. REQ'D: — ANALYSIS REQ'D: — DATE DISPATCHED: Jan 86

DATE RECEIVED: Jun 86 — A1996

SAMPLE NUMBER	LOCATION		DESCRIPTION	ANALYSES								
				Au	Ag	As	Cu	Pb	Zn	Bi		
T1176	See	1:200 Map.	Bleached, silicified volcaniclastic.	<0.01	0.2	<1	3	4	8	1		
1177			Fine grained green volcaniclastic. Sil-chl-ab alt'n.	"	0.1	58	34	81	80	1		
1178			Bleached, silicified volcaniclastic - green tuff.	Not	Assayed							
1179			Grey siltstone.	<0.01	0.1	21	8	11	44	2		
1180			Dora conglomerate.	Not	Assayed							
1181			Chloritic volcaniclastic		"							
1182			Bedded lithic volcaniclastic.		"							
1183			Fine grained, green, cleaved tuffaceous sediment.		"							
1184			Dark green, lithic, quartz phyric " " .	<0.01	<0.1	12	4	10	172	<1		
1185			Volcaniclastic with pyrite on joints.	0.011	"	13	4	12	163	2		
1186			Variably bleached volcaniclastic.	<0.01	0.1	12	63	6	60	<1		
1187			Quartz porphyry lava. Brecciated.	"	0.1	13	3	3	14	"		
1188			" " " . Siliceous, pyritic	"	0.1	<1	5	4	8	"		
1189			" " " . " " .	"	0.1	"	5	5	8	"		
1190			" " " . " " .	"	0.1	16	5	3	33	2		
1191			" " " . Sericitic.	"	<0.1	<1	3	5	14	2		
1192			" " " .	"	0.1	16	2	5	33	<1		
1193			Pyritic volcaniclastic.	"	0.1	<1	11	9	83	1		
2601			Quartz-sericite fault gouge, N branch HFZ	0.010	<0.5	3	25	15	35	<1		

GOLD FIELDS EXPLORATION PTY. LTD. **SAMPLE RECORD AND ANALYTICAL DATA SHEET** COLLECTED BY: Cleare 039

PROJECT: TYNDALL PROSPECT: HEWITT SAMPLE STORAGE REQ'D: LABORATORY: DATE DISPATCHED:

1:~~250,000~~ 2000 SHEET: H9+H10 TYPE OF SAMPLE: Rock Chip SAMPLE PREP. REQ'D: ANALYSIS REQ'D: DATE RECEIVED: A199

SAMPLE NUMBER	LOCATION		DESCRIPTION	ANALYSES								
				Au	Ag	Cu	Pb	Zn	Bi	Mo		
T1401	Costean		Part of Costean section from MS → 2m ETW in FW	0.057	1.9	25	25	11	<1	45		
T1402	Costean		" " " " from 2m → 5m ETW in FW	<0.005	<0.1	22	20	23	"	170		
T1403	Costean		" " " " from 5m → 9m ETW in FW	"	"	20	23	56	"	225		
T1404	Costean		Sericitic Clays in Costean (Hewitt Fault?)	"	"	56	18	163	"	85		
T1405			" " in Rd between 449.1 - 449.2 N	"	"	13	14	142	"	115		
T1406			Sericite - qtz breccia " " "	"	"	16	47	87	"	85		
T1407	50N	50E	Siliceous Ignimbrite (?).	"	"	6	4	14	"	20		
T1408	Costean		Immediate HW section of MS Sulphide	0.048	2.4	95	152	30	17	35		
T1409	In Hewitt R.	5m N of 50 SW	Mafic Dyke	<0.005	<0.1	91	10	163	<1	200		
T1410	"	20m N of 50 SW	Pink green fairly coarse volcaniclastic (Ignim)	"	"	7	4	22	"	110		
T1411	Creek off W River	(25m ↑)	Fine g. ignimbrite (?) Chlorite - Altd + alteration	"	"	5	5	23	"	320		
T1412	" " "	(35m ↑)	" " " " " + sericite	0.012	"	5	10	26	"	295		
T1413	" " "	(50m ↑)	Foliated clayey med - fine g. ignimbrite (Alt - seric)	0.014	"	11	6	19	"	120		
T1414	47	225	Recrystallised fine g. siliceous volcanic?	0.013	"	17	45	190	"	85		
T1415	47 - 15m N	205	Sheared volcanics in HW of Hewitt Fault?	<0.005	"	31	8	82	"	540		
T1416	47 - 25m N	205	Sheared Altd - sericitic volcanics in HW of Hewitt Fault	"	"	5	5	23	"	100		
T1417	47 + 10m N	210	Severely sheared sericitic volcanics (HW of Hewitt Fault?)	"	"	33	2	33	"	380		
T1418	46	320	Dark green f - med grained volcaniclastic	"	"	4	3	51	"	15		
T1419	46 + 5m N	285	F-grained well cleaved dk green volcaniclastic	0.014	"	2	3	72	"	5		
T1420	46 + 5m N	283	Silicified or cherty volcanic	0.015	"	17	<1	42	"	<5		
T1421	46 + 5m N	275	Possible re-concreted (Fe) stream sediment.	0.015	"	6	14	48	"	15		

015040

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

PROJECT: Tyndall PROSPECT: Henty SAMPLE STORAGE REQ'D: LABORATORY: DATE DISPATCHED:

1:~~25~~000 SHEET: H10 TYPE OF SAMPLE: Rock Chip SAMPLE PREP. REQ'D: ANALYSIS REQ'D: DATE RECEIVED:

SAMPLE NUMBER	LOCATION		DESCRIPTION	ANALYSES								
				Ptu	Hg	Cu	Pb	Zn	Bi	Ba		
T1422	46+5mN	275E	V. strongly foliated clayey unit.	0·008	<0·1	11	10	162	<1	45		
T1423	46+5mN	277E	" " " " "	0·010	"	20	10	102	"	10		
T1424	46-15mN	205E	Schistose lithic volcaniclastic (Hwly Henty Fault)	0·013	"	11	18	38	"	545		
T1425	46-35mN	195E	Schistose lithic volcaniclastic (" " " ")	<0·005	"	3	4	22	"	160		
T1426	46-4mN	190E	Weakly cleaved lithic volcaniclastic (" " " ")	"	"	15	6	17	"	135		
T1427	46-35mN	300E	Soft micaceous shale?	"	"	5	2	17	"	200		
T1428	46-50mN	on tie line to 1430	" " grey shale?	0·013	"	17	4	67	"	225		
T1429		"	" " " ")	<0·005	"	5	12	35	"	190		
T1430	45+50N	105E	V. hard siliceous med. gpd. volcaniclastic	0·012	"	33	4	75	"	100		
T1431	"	"	Qtz vein hosted by T1430	0·013	"	5	1	10	"	35		
T1432	"	"	V. hard siliceous med gpd. volcaniclastic	<0·005	"	3	2	129	"	180		
T1433	45N	135E	Lithic volcaniclastic	"	"	2	<1	90	"	120		
T1434			Qtz phyric volcaniclastic	0·012	"	5	<1	17	"	130		
T1435			" " "	<0·005	"	2	<1	45	"	25		
T1436			strongly cleaved volcaniclastic	0·028	"	12	35	158	"	90		
T1437			" " "	0·029	"	34	8	275	"	<5		
T1438			Qtz phyric volcaniclastic	0·011	"	13	2	100	"	15		
T1439	In Costean		Qtz sericite shear zone near T1404	0·008	"	15	20	36	"	80		
T1440	46N+8m	305E	Cloudy schistose volcaniclastic?	0·012	"	40	11	20	6	200		
T1441			V. Fissile rock (sericitic + shear)	0·054	"	11	10	35	"	145		

0150411

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

COLLECTED BY: CPOAT

PROJECT: Tyndall — PROSPECT: Henty — SAMPLE STORAGE REQ'D: — LABORATORY: — DATE DISPATCHED:

1:~~200~~.000 SHEET: H9+H10 — TYPE OF SAMPLE: Rock Chip — SAMPLE PREP. REQ'D: — ANALYSIS REQ'D: — DATE RECEIVED:

A199

SAMPLE NUMBER	LOCATION		DESCRIPTION	ANALYSES							
				Au	Ag	Cu	Pb	Zn	Bi	Be	
T1442			Cleaved greenish volcanic	<0.003	<0.1	3	<1	125	<1	65	
T1443			Mafic dyke or lava?	0.073	"	94	27	190	"	125	
T1444	SOM	63E	Bedded - greenish volcanic	0.187	"	1	<1	4	"	45	
T1445	50+ N		Fissile - lately greenish volcanic mudstone?	0.145	"	2	<1	38	"	260	
T1446	50+ N		Quartz phyric volcanic, Possible Tyndall Group?	0.060	"	2	<1	23	"	90	
T1447	50+ N		Stream Float, green lithofacies conglomerate	<0.003	"	3	7	25	"	125	
T1448			[illegible]	"	"	8	1	19	"	65	
T1449			[illegible]	0.193	"	31	15	102	"	125	
T1450			[illegible]	0.377	0.6	565	50	92	31	175	

0150042

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

PROJECT: Tyndall PROSPECT: Heatly SAMPLE STORAGE REQ'D: LABORATORY: COLLECTED BY: CP

1:~~250~~.000 SHEET: 49 TYPE OF SAMPLE: Rock Chips SAMPLE PREP. REQ'D: ANALYSIS REQ'D: DATE DISPATCHED: DATE RECEIVED: 042

A19962

SAMPLE NUMBER	LOCATION		DESCRIPTION	ANALYSES								
				Sn	Mo	Cu	Pb	Zn	Bi	Be		
T1460			Gritty volcaniclastic (Tyndall Group?)	0.019	<0.1	2	4	16	<1	90		
T1461			silty - gritty volcaniclastic	<0.003	"	73	1	66	"	175		
T1462			coarse volcaniclastic (conglomeratic)	"	"	3	2	67	"	170		
T1463			Qtz - porphyry lava (Tyndall Group)	0.009	"	3	<1	29	"	75		
T1464	STANDARD			—	—	—	—	—	—	—		
T1465			Qtz - porphyry lava	0.003	"	2	8	38	"	145		
T1466			Float sample as qtz porphyry lava.	0.032	"	3	2	27	"	35		
T1467			Volcaniclastic (Tyndall Group)	<0.003	"	1	15	46	"	210		
T1468	52	1900'E	Gritty Volcaniclastic	0.010	"	4	4	17	"	105		
T1469	52	1550'E	Volcaniclastic (conglomeratic)	0.044	"	4	3	48	"	110		
T1470			cleaved v.fine grained volcaniclastic	<0.003	"	1	<1	22	"	245		
T1471			Cleaved volcaniclastic	0.030	"	4	41	15	"	105		
T1472			crystal-rich volcaniclastic	<0.003	"	4	4	30	"	75		
T1473			sericite-quartz rich sheared volcaniclastic	"	"	16	3	21	"	185		
T1474			sheared sericitic unit.	"	"	22	1	15	"	100		
T1475	53	365	V. fissile cleaved volcaniclastic.	"	0.2	3	<1	29	"	115		
T1476			grey-green lithic volcaniclastic, with f-g. pyrite-sericite qtz	0.013	<0.1	12	85	155	2	245		
T1477			" " f-g. lithic volcaniclastic	0.015	<0.1	2	3	10	8	185		
T1478			Coarse grey-green lithic rich volcaniclastic with py-ser-qtz.	0.149	0.4	25	55	30	36	235		
T1479			Volcaniclastic (sil + ser)	<0.003	<0.1	2	<1	22	<1	45		
T1480			siliceous volcaniclastic (ser + qtz.)	"	"	5	17	83	"	135		

01150443

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

PROJECT: Tyndall PROSPECT: Heavitree SAMPLE STORAGE REQ'D: LABORATORY: DATE DISPATCHED: 043

1:250.000 SHEET: H9 TYPE OF SAMPLE: Rock Chip SAMPLE PREP. REQ'D: ANALYSIS REQ'D: DATE RECEIVED: A1996

SAMPLE NUMBER	LOCATION		DESCRIPTION	ANALYSES								
				Au	Hg	Cu	Pb	Zn	Bi	Ba		
T1481			Silicified - (sericitic) volcaniclastic	<0.003	<0.1	1	<1	11	<1	30		
T1482			V. fissile cleaved - sericitic volcaniclastic	"	<0.1	2	<1	20	5	85		
T1483			Silicified - (sericitic) volcaniclastic.	"	0.1	3	66	173	<1	280		
T1484			" " "	"	<0.1	4	43	242	"	170		
T1485			" " "	0.012	"	6	3	23	"	70		
T1486			Gritty silicified - (sericitic) volcaniclastic	<0.003	"	3	<1	8	"	45		
T1487			Quartz porphyry lava	"	"	1	<1	39	"	65		
T1488			Epiclastic (sericitic	"	"	2	13	28	"	125		
T1489			Quartz porphyry lava	0.003	"	1	12	32	"	170		
T1490			" " "	<0.003	"	1	<1	33	"	60		
T1491			Highly deformed volcanic		NOT		ASS	AYED				
T1492			" " "	0.018	"	22	<1	6	"	85		
T1493			Silicified + weakly deformed volcanic	0.009	"	4	<1	4	"	80		
T1494			sericitic volcaniclastic	0.004	"	8	<1	22	"	90		
T1495			chloritic volcaniclastic	<0.003	"	3	3	81	"	760		
T1496			Volcaniclastic - dark grey green sericitic + chloritic	<0.01	"	3	<1	42	"	110		
T1497			Grey green chloritic - (sericitic) volcaniclastic.	<0.01	"	3	<1	19	"	55		
T1498			Dark green chloritic fissile volcanic	<0.01	"	3	2	145	"	70		
T1499			Grey-green chloritic (sericitic) schistose volcanic	<0.01	0.1	3	1	15	"	325		
T1500			V. fissile sericitic - bleached volcanic	<0.01	<0.1	2	<1	9	"	50		

0150044

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

PROJECT: Tyndall PROSPECT: Hearty SAMPLE STORAGE REQ'D: LABORATORY: DATE DISPATCHED: 04/84

1:~~250~~2.000 SHEET: H9+H8 TYPE OF SAMPLE: Rock Chip SAMPLE PREP. REQ'D: ANALYSIS REQ'D: DATE RECEIVED: A1956

SAMPLE NUMBER	LOCATION		DESCRIPTION	ANALYSES								
				Au	Ag	Cu	Pb	Zn	Bi	Ba		
T1501			Quart Porphyry lava	<0.01	<0.1	3	3	31	<1	40		
T1502			Chlorite veined pink/grey-green chloritic volcaniclastic	"	<0.1	6	13	29	"	60		
1503			V. fine grained grey-green volcaniclastic	"	0.5	50	700	1100	"	315		
1504			V. dark green chloritic volcaniclastic	"	<0.5	65	175	340	"	690		
1505			Sericite - pyrite sheared volcanic	"	0.5	10	245	475	"	55		
1506			Quart porphyry lava - quartz pyrite epiclastic	"	<0.1	3	3	25	"	55		
1507			Quartz vein.	"	"	5	<1	7	"	20		
1508			Ser. - Chlor. volcaniclastic	"	"	3	42	35	"	85		
1509			Chlor - Ser fissile - competent volcaniclastic	"	"	14	77	200	"	200		
1510			F. grained chloritic sheared volcanic	"	"	7	12	240	"	65		
1511			Chloritic "podday" volcanic	"	"	47	53	168	"	40		
1512			Chloritic - pyritic pod from within T1511 unit	"	<0.5	3850	85	50	14	70		
1513			F. grained sheared - podded volcanic. Some altered (?) pod	"	0.5	430	15	200	<1	115		
1514			White - green silicified volcanic. Trace Py.	"	<0.1	16	4	76	"	165		
1515			greenish mottled, pink lava - lithic volcaniclastic. Poss Qtz Phyric	"	0.1	17	18	200	"	25		
1516			Quart. porphyry lava.	"	<0.1	11	5	40	"	150		
1517			F. grained chloritic fissile volcanic	"	"	4	36	290	"	100		
1518			Strongly sheared QPL or quartz phyric volcaniclastic	"	0.1	3	<1	10	"	30		
1519			Quartz phyric volcanic or QPL.	"	<0.1	13	22	82	"	120		
1520			Quartz porphyry lava.	0.01	"	7	1	37	"	45		
					"							

0150 45

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

PROJECT: Tyndall PROSPECT: Hentys SAMPLE STORAGE REQ'D: LABORATORY: Analabs COLLECTED BY: CP 045

1:250.000 SHEET: H8 TYPE OF SAMPLE: Rock Chips SAMPLE PREP. REQ'D: ANALYSIS REQ'D: DATE DISPATCHED: '85 DATE RECEIVED: A199

SAMPLE NUMBER	LOCATION		DESCRIPTION	ANALYSES								
				Au	Ag	Cu	Pb	Zn	Bi	Ba		
T1541			weakly pyritic Qtz-ser. schist	<0.01	<0.1	28	8	5	<1	120		
1542			F-g pyritic sediment (?)	"	"	30	5	28	"	120		
1543			V-strongly weathered mafic volcanic	"	"	84	9	188	"	105		
1544			Qtz-sericite-(py) schist	"	"	23	7	16	"	120		
1545			" " " "	"	"	10	2	3	"	90		
1546			Mafic volcanic	"	"	18	5	145	2	90		
1547			Qtz-ser-py. schist	"	"	18	7	5	<1	245		
1548			F-g. mafic volcanic	"	"	58	9	169	"	145		
1549			(Qtz-ser-py) schist	"	"	25	6	88	"	665		
1550			chloritic schist (?recrystallised)	"	<0.5	85	25	375	"	140		
1551			" " "	"	<0.1	121	55	197	"	100		
1552			Mafic Volcanic (f-g)	"	"	54	8	181	"	115		
1553			sericite-quartz schist	"	"	24	13	29	"	130		
1554			Qtz-sericite-(py) schist	"	"	340	14	116	"	200		
1555			" " " "	"	"	101	12	11	"	200		
1556			" " -pyrite schist	"	"	72	11	13	"	135		
1557			" " " "	"	0.1	34	6	5	"	145		
1558			chlorite veined mafic volcanic	"	"	44	5	80	"	170		
1559			Chert (?recrystallised)	"	"	6	7	114	"	80		
1560			Strongly deformed mafic volcanic (f-g)	"	"	42	3	210	"	60		

0150046

GOLD FIELDS EXPLORATION PTY. LTD. **SAMPLE RECORD AND ANALYTICAL DATA SHEET** COLLECTED BY: CP 046

PROJECT: Tyndall PROSPECT: Hells Rock Chip SAMPLE STORAGE REQ'D: LABORATORY: DATE DISPATCHED:

1:~~250~~2.000 SHEET H8 TYPE OF SAMPLE: SAMPLE PREP. REQ'D: ANALYSIS REQ'D: DATE RECEIVED: A199

SAMPLE NUMBER	LOCATION		DESCRIPTION	ANALYSES								
				Au	Ag	Cu	Pb	Zn	Bi	Ba		
T1561			Qtz - Plagic epiclastic	<0.01	<0.1	8	2	19	<1	125		
1562			Bleached - cleaved quartz porphyry lava	0.02	<0.1	3	<1	6	"	35		
1563			V. soft fissile deformed chloritic f.g. volcanic	0.01	<0.5	50	25	335	"	25		
1564			Cleaved (bleached) lith porphyry lava	0.03	<0.1	3	5	23	"	25		
1565			f.g. chloritic volcanic	0.04	"	81	53	115	"	120		
1566			F.g. weakly padded chloritic volcanic	0.02	<0.5	290	20	270	"	10		
1567			siliceous pod within chloritic matrix	0.04	4.0	2450	<1	10	2	5		
1568			Dump Sample - strongly mineralised siliceous pod	0.15	16.0	3.60%	10	40	1	5		
1569			Sulphide mineralised pod in chloritic matrix	0.48	6.0	1.90%	10	70	21	10		
1570			F.g. chloritic fissile volc. host to siliceous pods"	0.01	<0.5	8700	10	345	<1	20		
1571			" " " " " " "	0.02	<0.1	320	3	195	"	25		
1572			Siliceous (sulphide) "pod"	0.02	"	630	11	34	"	15		
1573			Finely "banded" chlor - siliceous volcanic (sulphide vein)	<001	<0.5	400	20	255	"	10		
1574			Fissile - chloritic - altered f.g. volcaniclastic	"	<0.1	10	2	67	"	70		
1575			Creamy altered (?) volcaniclastic - (minor chloritic component)	"	"	12	1	8	"	45		
1576			Creamy - fawn altered fissile volcaniclastic	"	"	14	5	21	"	50		
1577			Qtz veined volcanic (with blackish sulphide (?))	"	"	12	<1	10	"	35		
1578			Minor siliceous banding in chloritic f.g. volcanic	"	<0.5	350	20	175	"	60		
1579			V. ~~siliceous~~ ruggy crushed + oxidised chloritic volc.	"	<0.1	32	13	380	"	55		
T1580			siliceous banded chloritic volcanic.	"	"	7	5	186	"	35		

01150447

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

PROJECT: Tyndall PROSPECT: Henty SAMPLE STORAGE REQ'D: LABORATORY: Analabs COLLECTED BY: CB

1:~~250~~2,000 SHEET: H8 TYPE OF SAMPLE: Rock Chip SAMPLE PREP. REQ'D: ANALYSIS REQ'D: DATE RECEIVED: DATE DISPATCHED: 8/5/85

A1996

SAMPLE NUMBER	LOCATION		DESCRIPTION	ANALYSES								
				Au	Ag	Cu	Pb	Zn	Bi	Ba		
T1541			weakly pyritic Qtz-ser. schist	<0.01	<0.1	28	8	5	<1	120		
1542			F-g pyritic sediment (?)	"	"	30	5	28	"	120		
1543			V-strongly weathered mafic volcanic	"	"	84	9	188	"	105		
1544			Qtz-sericite-(py) schist	"	"	23	7	16	"	120		
1545			" " " "	"	"	10	2	3	"	90		
1546			Mafic volcanic	"	"	18	5	145	2	90		
1547			Qtz-ser-py. schist	"	"	18	7	5	<1	245		
1548			F-g. mafic volcanic	"	"	58	9	169	"	145		
1549			Qtz-ser-(py) schist	"	"	25	6	88	"	665		
1550			chloritic schist (recrystallised)	"	<0.5	85	25	375	"	140		
1551			" " "	"	<0.1	121	55	197	"	100		
1552			Mafic Volcanic (f-g)	"	"	54	8	181	"	115		
1553			sericite-quartz schist	"	"	24	13	29	"	130		
1554			Qtz-sericite-(py) schist	"	"	340	14	116	"	200		
1555			" " " "	"	"	101	12	11	"	200		
1556			" " -pyrite schist	"	"	72	11	13	"	135		
1557			" " " "	"	0.1	34	6	5	"	145		
1558			chlorite veined mafic volcanic	"	"	44	5	80	"	170		
1559			Chloritic volcaniclastic	"	"	6	7	114	"	80		
1560			Strongly deformed mafic volcanic (f-g)	"	"	42	3	210	"	60		

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

PROJECT: Tyndall PROSPECT: Henty SAMPLE STORAGE REQ'D: LABORATORY: DATE DISPATCHED: 0 4 8

1:~~250~~.000 SHEET: H8 TYPE OF SAMPLE: Rock Chip SAMPLE PREP. REQ'D: ANALYSIS REQ'D: DATE RECEIVED: A1996

SAMPLE NUMBER	LOCATION		DESCRIPTION	ANALYSES								
				Au	Ag	Cu	Pb	Zn	Bi	Ba		
1581			V. friable chloritic f-g. schist	<0.01	<0.1	7	3	250	<1	20		
1582	Near Henty	Camp Ridge	locally pyritic (siliceous) banded f-g. chloritic rock.	"	<0.5	1200	140	70	10	10		
1583	"	" "	As above but flexured, contorted + folded.	"	<0.1	410	34	80	<1	10		
1584	"	" "	"soapy" chloritic f-g schist with local pyrite	"	0.1	50	28	110	"	25		
1585			pyritic greeny-grey shaley f-g. schist	"	<0.1	26	16	71	"	70		
1586			Si-py banded greeny-grey f-g. friable schist	"	"	1200	14	59	5	10		
1587			F-g. fawn-creamy schist	"	"	7	16	25	<1	55		
1588			fawn-green-pink mot. x-bd rich schist	"	"	9	5	24	"	60		
1589			V. strongly disrupted f-g. green schist	"	"	4	71	420	"	15		
1590			Quartz, pegtite lens	<0.08	0.1	8	2	28	3	195		
1591			sheared schist in Henty Fault	"	0.1	6	<1	43	1	90		
1592			Chlorite-carbonate schist (F-g)	"	<0.1	10	6	480	1	100		
1593			Chlorite (sil-carb) schist	"	"	6	10	191	<1	80		
1594			" "	"	"	8	5	117	<1	45		
1595			V.f-g chlorite veined f-g schist	"	0.1	93	21	207	3	70		
1596			Chlorite (+) fawn-creamy schist	"	<0.1	2	2	12	<1	160		
1597			" " " "	"	0.1	4	3	23	"	120		
1598			Chlorite-chlorite mud grained schist	"	<0.1	5	5	36	"	145		
1599			Chlorite f-g schist	"	"	5	1	77	"	80		
1600			Chlorite-chlorite pass agglomerate	0.047	"	4	<1	6	"	165		

0150449

GOLD FIELDS EXPLORATION PTY. LTD. **SAMPLE RECORD AND ANALYTICAL DATA SHEET** COLLECTED BY: A.S.C.

PROJECT: TYNDALL PROSPECT: HENTY SAMPLE STORAGE REQ'D: LABORATORY: ANALABS DATE DISPATCHED: 3

1:~~250~~2,000 SHEET: H10 TYPE OF SAMPLE: ROCK CHIP SAMPLE PREP. REQ'D: 015050 ANALYSIS REQ'D: DATE RECEIVED: 0

SAMPLE NUMBER	LOCATION		DESCRIPTION	ANALYSES (ppm) Au	Ag	As	Cu	Pb	Zn	Bi
T 2541			Dark-grey/black fissile, laminated siltstone. Altered (weakly) with pyritic veinlets and joints.	<0·008	<0·1	54	295	20	135	1
T2542			Green fissile siltstone. Minor pyritic veinlets.	0·184	"	77	330	3	96	3
T2543			Pink-green siliceous pyroclastic. Numerous thick quartz (mekimaphic) veins.	<0·008	"	45	11	5	19	1
T2544			Pale green, sericitic, very fine grained siltstone. Fractured with dark green chlorite.	0·073	0·1	7	8	65	74	2
T2545			Hard, quartz phyric, silicified, greenish-grey, tuffaceous pyroclastic	0·009	<0·1	4	4	<1	11	<1
T2546			Green, chloritic, quartz phyric, silicified pyroclastic. Rare pyrite.	<0·008	"	10	5	"	43	"
T2547			Strongly quartz phyric, weakly silicified pyroclastic. Pink-green.	"	"	5	4	"	31	"
T2548			Quartz phyric, pink/green pyroclastic,	"	"	4	6	"	38	3

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

PROJECT: TYNDALL PROSPECT: HENTY SAMPLE STORAGE REQ'D: 015051 LABORATORY: ANALABS DATE DISPATCHED: 5/10

1:~~250~~ 2.000 SHEET: H10 TYPE OF SAMPLE: ROCK CHIP SAMPLE PREP. REQ'D: ANALYSIS REQ'D: DATE RECEIVED:

SAMPLE NUMBER	LOCATION		DESCRIPTION	ANALYSES (ppm) Au	Ag	As	Cu	Pb	Zn	Bi
			with minor metamorphic quartz veining.							
T2549			Strongly quartz phyric, pale brown/cream pyroclastic	<0.008	<0.1	6	3	<1	10	2
T2550			Green, fissile shale. Talcose and weathered.	"	"	28	21	8	108	3
T2551			Purple siltstone - laminated, weakly weathered	"	"	4	19	3	90	6
T2552			Weathered clayey fault gug; weathered lithic pyroclastics; and weathered purple siltstone. A 40cm sample across the fault zone	"	"	4	25	19	51	1
T2553			Moderately fissile, pale green siltstone, with dark green chloritic veinlets. Weathered.	"	"	10	21	17	145	<1
T2554			Silicified, green/grey shale. Rare quartz phenocrysts. Foliated with rare sulphides.	0.008	"	27	11	1	39	3
T2555			Breccio-conglomerate. Angular, coarse grained quartzose clasts in a clast-poor, very fine grained chloritic, shale matrix. Weakly silicified.	<0.008	0.1	58	20	25	56	1

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

PROJECT: TYNDALL PROSPECT: HENTY SAMPLE STORAGE REQ'D: 015052 LABORATORY: ANALABS DATE DISPATCHED: 8/3/84

1:~~250~~ 2.000 SHEET: H10 TYPE OF SAMPLE: ROCK CHIP SAMPLE PREP. REQ'D: ANALYSIS REQ'D: DATE RECEIVED: 14/3/84

SAMPLE NUMBER	LOCATION		DESCRIPTION	ANALYSES (ppm)						
				Au	Ag	As	Cu	Pb	Zn	Bi
T2556			As for T2555	0·093	0·1	32	25	14	93	<1
T2557			Dark/light green sandy siltstone. Weakly quartz phyric with chlorite veins and chert bands	<0·008	<0·1	4	2	1	103	1
T2558			Strongly weathered, clayey green siltstone. Minor quartz veining.	"	"	16	70	13	75	<1
T2559			Weathered, strongly foliated, clayey shale. Moderately pyritic.	"	0·3	53	710	51	191	"
T2560			Fissile purple shale. Strongly foliated.	"	<0·1	7	77	3	129	"
T2561			Grey/green shale — coarse/medium grained sandstone.	"	"	23	15	13	133	"
T2562			Strongly foliated, weathered, purple siltstone. Possibly silicified.	"	"	49	60	20	97	"
T2563			Massive, blocky jointed, pale green, gritty volcaniclastic.	"	0·1	30	42	58	200	3

GOLD FIELDS EXPLORATION PTY. LTD. **SAMPLE RECORD AND ANALYTICAL DATA SHEET** COLLECTED BY: [illegible]

PROJECT: TYNDALL PROSPECT: HENTY SAMPLE STORAGE REQ'D: LABORATORY: ANALABS DATE DISPATCHED:

1-~~250~~.000 SHEET: H10 TYPE OF SAMPLE: ROCK CHIP SAMPLE PREP. REQ'D: **015053** ANALYSIS REQ'D: DATE RECEIVED:

SAMPLE NUMBER	LOCATION		DESCRIPTION	ANALYSES (ppm) Au	Ag	As	Cu	Pb	Zn	Sb
T2564			Weakly quartz phyric, green and white banded volcaniclastics. Fissile and shaley.	<0·008	<0·1	9	29	<1	74	<1
T2565			Sample across fault. Prog; weathered, sheared purple siltstone; highly sheared, soft felsic volcaniclastics.	"	"	8	33	78	20	"
T2566			Mixed dark green tuffaceous shales with strongly quartz phyric breccia containing pink quartz phyric lava fragments and quartz phenocrysts in a fine grained chloritic matrix.	"	"	2	10	2	51	"
T2567			Pale green shale with chloritic veins.	0·011	"	4	9	2	64	"
T2568			Green volcaniclastic with quartz phenocrysts and dark green chloritic veinlets.	0·013	"	3	4	3	186	"
T2569			Pale green/grey gritty volcaniclastic with quartz and white lithic fragments. Silicified.	0·015	"	2	74	<1	55	"
T2570			Strongly fractured fine grained epiclastic hands and	<0·008	"	4	3	"	85	1

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

PROJECT: TYNDALL PROSPECT: HENTY SAMPLE STORAGE REQ'D: 015054 LABORATORY: ANALABS DATE DISPATCHED:

1:~~250~~2.000 SHEET: H10 TYPE OF SAMPLE: ROCK CHIP SAMPLE PREP. REQ'D: ANALYSIS REQ'D: DATE RECEIVED: 8/5/87

SAMPLE NUMBER	LOCATION		DESCRIPTION	ANALYSES (ppm & %)						
				Au	Ag	As	Cu	Pb	Zn	Sb
			cherty zones within quartz phyric, lithic volcaniclastic breccias containing clasts of pink, quartz phyric lava. Chlorite veined.							
T2571			Mixed green epiclastics with pink/green quartz phyric breccia. Some pyrite present.	0.034	<0.1	5	5	5	36	<1
T2572			Quartz phyric, elongate clast dominated, breccio-conglomerate.	<0.005	"	3	2	2	8	7
T2573			Clast-rich breccio-conglomerate (Oven-like)	0.014	0.1	4	"	"	24	<1
T2574			Oven conglomerate with a gritty green volcaniclastic matrix and gritty volcaniclastics/shales.	<0.005	0.2	2	"	<1	64	"
T2575			Highly fissile, dark green/black shale.	"	0.3	4	5	11	89	"
T2576			Siliceous grey shale and gritty volcaniclastics	0.028	0.2	3	4	1	29	2
T2577			Standard B71 (0.12g/t).							

APPENDIX 3

BEDROCK SAMPLE DESCRIPTIONS AND ASSAYS

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

PROJECT: Tyndall PROSPECT: Henty SAMPLE STORAGE REQ'D: LABORATORY: Analabs COLLECTED BY: N. Poltock

1:~~250~~2.000 SHEET: H10 TYPE OF SAMPLE: Wuka SAMPLE PREP. REQ'D: ANALYSIS REQ'D: DATE DISPATCHED: Feb 86 DATE RECEIVED: 05 A1996

SAMPLE NUMBER	GRID LOCATION		DESCRIPTION	ANALYSES (ppm)								
				Au	Ag	As	Cu	Pb	Zn	Bi		
T881	43N	60E	Blue grey rock (wtkd) with grey pods. (0.6m)	<0.008	<0.5	41	10	15	265	<1		
882		50 E	Blue/green bedded rock " tan " . (0.8m)	"	"	3	40	<5	160	3		
883		40 E	Dark grey " " " " " (3.0m)	0.014	"	<1	10	"	120	<1		
884		30 E	Multicoloured wtkd rock (3.9m)	0.016	"	"	140	75	140	"		
885		20 E	Clayey wtkd rock. (1.6m)	<0.008	"	2	150	270	250	"		
887		10 E	Tan/khaki wtkd rock. (1.0m)	0.009	"	2	110	10	110	"		

01505

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

PROJECT: Tindall PROSPECT: Henty SAMPLE STORAGE REQ'D: LABORATORY: Analabs COLLECTED BY: N. Pollock

1:2500 SHEET: H8 TYPE OF SAMPLE: Wicka SAMPLE PREP. REQ'D: ANALYSIS REQ'D: DATE RECEIVED: DATE DISPATCHED: Feb '86

A1996

SAMPLE NUMBER	GRID LOCATION		DESCRIPTION	ANALYSES (ppm)							
				Au	Ag	As	Bi	Pb	Zn	Bi	
T2901	65N	60W	0.3m WBR finely bedded Green with cavelian staining	0.010	<0.5	4	10	10	205	<1	
2902		70W	0.5m Tan/green WBR finely bedded	<0.008	"	3	40	10	140	"	
2903		80W	1.0m finely bedded - bit more clayey khaki-green	0.011	"	5	5	10	215	"	
2904		90W	0.6m WBR light grey with qtz ± gravels	0.016	"	3	5	<5	15	"	
2905		100W	0.3m WBR light grey with slight greenings finely bedded	<0.008	"	2	20	"	25	"	
2906		110W	0.5m WBR tan/grey finely bedded	0.025	"	5	10	5	90	"	
2907		120W	Rock Chip khaki/green	0.028	"	11	10	10	290	"	
2908		125W	0.6m WBR green/grey	<0.008	"	2	5	<5	40	"	
2909		130W	1.5m WBR green	0.015	"	2	5	10	210	2	
2910		135W	1.8m WBR "	0.008	"	3	5	5	250	<1	
2911		140W	0.6m WBR mottled green/grey	<0.008	"	4	15	15	220	"	
2912		145W	0.7m WBR mottled tan/green	"	"	3	5	10	290	"	
2913		150W	0.6m WBR mottled green/grey-tan	"	"	2	5	5	315	"	
2914		155W	0.3m WBR green/grey-tan	0.010	"	11	90	5	240	"	
2915		160W	1.0m WBR green-tan	<0.008	"	<1	20	5	210	"	
2916		165W	1.4m WBR green-cream/grey mottled	0.041	"	3	90	25	185	1	
2917		170W	0.5m WBR green to khaki	0.011	"	2	20	10	205	<1	
2918		50W	1.8m WBR tan to khaki clayey	<0.008	"	50	10	105	285	"	
2919		40W	0.6m WBR green finely bedded with darker grn sections	0.018	"	19	60	10	340	"	
2920		30W	0.8m WBR green finely bedded slippery	0.019	"	6	20	5	260	1	

0150

0150 57

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

COLLECTED BY: N. Pettach

PROJECT: Tyndall — PROSPECT: Henty — SAMPLE STORAGE REQ'D: — LABORATORY: Amdel's — DATE DISPATCHED: Feb 86

1:~~200~~.000 SHEET: H8 — TYPE OF SAMPLE: Wacha — SAMPLE PREP. REQ'D: — ANALYSIS REQ'D: — DATE RECEIVED:

A19963

SAMPLE NUMBER	GRID LOCATION		DESCRIPTION	ANALYSES (ppm) Au	Hg	As	Cu	Pb	Zn	Bi
T2921	65N	20W	1.4m WBR green finely bedded slippery	0.010	<0.5	19	715	<5	390	<1
2922		15W	1.5m WBR " " " - more flakey	0.010	"	4	50	5	310	"
2923		10W	2.8m WBR " mottled	<0.008	"	2	100	10	275	"
2924		5W	2.2m WBR " off white mottled	"	"	12	<5	<5	210	"
2925		DD	2.4m WBR mainly green	"	"	2	5	5	295	"
2926		5E	2.8m WBR green with tan pod thinly bedded	0.011	<0.5	1	10	5	260	"
2927		10E	3.9m WBR tan? mixed up with gravels?	<0.008	"	21	85	265	580	2
2928		15E	2.0m BR? Grey gravelly looking with slight greenish tinge	"	"	6	35	25	70	<1
2929		20E	0.4m WBR " " " with tan tinge	"	"	4	5	<5	30	"
2930		25E	Rock Chip	0.018	"	12	5	"	30	"
2931		30E	Rock Chip	0.008	"	16	5	"	40	"
2932	63N	DDE	4.4m WBR khaki-tan over light cream green WBR	0.040	"	17	10	25	255	2
2933		5E	5.1m WBR green-white finely bedded with light green staining?	0.026	"	17	5	20	360	4
2934		10E	7.8m WBR tan grey cream flecks under greenish clayey WBR	0.017	"	5	75	60	115	3
2935		15E	8.0m WBR grey gravelly looking	0.021	"	14	20	<5	10	2
2936		20E	1.9m WBR grey gravelly with slight green tinge	0.011	"	3	35	65	80	<1
2937		25E	2.0m WBR grey/fawn gravelly	0.010	"	4	35	5	35	"
2938		30E	0.7m WBR tan/fawn - cream	0.017	"	6	25	25	70	"
2939		35E	Rock Chip	0.012	"	10	20	5	25	"
2940		40E	Rock Chip	0.012	"	17	10	5	15	"

016058

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

PROJECT: Tyndall PROSPECT: Hearty SAMPLE STORAGE REQ'D: LABORATORY: Analabs COLLECTED BY: Pollock

1 ~~cm~~²:000 SHEET: H8 TYPE OF SAMPLE: Wedge SAMPLE PREP. REQ'D: ANALYSIS REQ'D: DATE RECEIVED: DATE DISPATCHED: Feb '86

SAMPLE NUMBER	GRID LOCATION		DESCRIPTION	ANALYSES (ppm)								
				Au	Ag	As	Cu	Pb	Zn	Bi		
T2941	63N	5W	3.6m WBR? Tan gravelly lodging	0.028	0.5	13	20	230	110	3		
2942		10W	2.2m WBR? " " "	0.009	0.5	2	50	160	150	<1		
2943		20W	2.4m WBR Tan khaki green mottled	<0.008	<0.5	5	100	50	230	"		
2944		30W	1.0m WBR Mainly khaki/green mottled.	0.183	"	28	145	60	250	"		
2945		40W	0.5m WBR " " "	0.042	0.5	75	210	45	160	5		
2946		50W	1.4m WBR " " "	<0.008	<0.5	18	375	30	225	<1		
2947		60W	0.6m WBR Rusty brown	0.124	"	35	895	70	125	32		
2948		70W	Rock Chip	0.137	3.0	64	2150	25	170	5		
2949		80W	0.6m WBR khaki/green	<0.008	<0.5	20	565	40	265	<1		
2950		90W	Rock Chip	0.046	"	96	1250	45	205	"		
2951		100W	Rock Chip	0.057	"	130	620	55	210	2		
2952		110W	0.4m WBR hight khaki/green	<0.008	"	29	15	15	165	<1		
2953		115W	3.2m WBR Blue/green ?dolerite/green WBR	"	"	15	80	15	205	"		
2954		120W	0.5m WBR green finely bedded with Dr. brown staining ? stream sections ?	"	"	4	10	10	110	"		
2955		125W	0.4m WBR green/brown finely bedded	"	"	1	5	10	70	"		
2956		130W	0.5m WBR green/blue with some brn. staining.	"	"	1	10	10	155	"		
2957		135W	0.3m WBR green with brown staining	"	"	1	5	15	80	2		
2958		140W	Rock Chip	"	"	1	5	15	105	1		
2959		145W	0.6m WBR green with brown staining	"	"	<1	5	20	230	<1		
2960		150W	3.4m WBR green, brown + tan ?dolerite clays with quartz fragments	"	"	23	465	60	175	1		

A1996

015059

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

PROJECT: Tyndall — PROSPECT: Henty — SAMPLE STORAGE REQ'D: — LABORATORY: Analabs — COLLECTED BY: N. Holtoh

1:~~250~~2,000 SHEET: H8 — TYPE OF SAMPLE: Wacka — SAMPLE PREP. REQ'D: — ANALYSIS REQ'D: — DATE DISPATCHED: Feb '86

DATE RECEIVED: — A199

SAMPLE NUMBER	GRID LOCATION		DESCRIPTION	ANALYSES (ppm)								
				Au	Ag	As	Cu	Pb	Zn	Bi		
T2961	63N	155W	4.0m WBR tan clayey under tan/grey clayey with 9½ frags	0·009	0·5	79	790	50	155	<1		
2962		160W	3·9m WBR green, cream, tan & brn mottled	<0·008	<0·5	23	40	15	155	<1		
2963	60N	650E	3·8m WBR grey under poggy grey clays.	"	0·5	83	55	125	285	"		
2964		645E	1·8m WBR Pinky, biscuit, grey, cream tan gravelly	0·015	<0·5	20	5	35	60	"		
2965		640E	2·4m WBR Mainly brn with green & cream, bedded (Finely)	<0·008	"	12	40	10	85	"		
2966		635E	2·8m WBR Cream (Green finely bedded WBR with dk grey peels) Pinky rotten looking rock under, mainly	"	"	5	10	15	280	"		
2967		630E	1·7m WBR khaki/green under tan clays	"	0·5	20	55	25	450	"		
2968		625E	1·4m WBR tan under green clayey WBR	"	<0·5	6	120	35	260	"		
2969		620E	1·2m WBR green	"	"	8	5	25	340	"		
2970		615E	0·6m WBR " with cream section	0·009	"	3	5	20	345	"		
2971		610E	1·2m WBR "	0·041	"	85	100	20	330	"		
2972		605E	2·5m WBR " finely bedded with darker green and (Cream/tan sections ?)	0·012	"	21	10	15	350	"		
2973		600E	2·0m WBR " flecked with off white "dark grey	<0·008	"	5	5	20	240	"		
2974		595E	2·4m WBR " greasy finely bedded.	"	"	3	5	20	210	1		
2975		590E	1·2m WBR " and tan	"	"	4	115	25	180	<1		
2976		580E	0·8m WBR tan khaki green with some pinky sections	"	"	2	260	75	445	"		
2977		570E	0·9m WBR " " " " " " "	"	"	3	30	20	290	"		
2978		560E	0·8m WBR tan/khaki green	0·009	"	23	300	80	600	"		
2979		550E	0·9m WBR Orange/brown, green grey mottled	0·041	"	75	450	45	370	"		
2980		540E	1·8m Tan & brn wet grit - unable to penetrate Rotten	<0·008	"	2600	5	15	330	"		

015060

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

COLLECTED BY: N. Pelled

PROJECT: Tyndall — PROSPECT: Henty — SAMPLE STORAGE REQ'D: — LABORATORY: Analabs — DATE DISPATCHED: Feb '86

1:2500 SHEET: H8 + H9 — TYPE OF SAMPLE: Wacka — SAMPLE PREP. REQ'D: — ANALYSIS REQ'D: — DATE RECEIVED:

SAMPLE NUMBER	GRID LOCATION		DESCRIPTION	ANALYSES (ppm)								
				Au	Ag	As	Cu	Pb	Zn	Bi		
T2951	60N	530 E	1.8m WBR Mainly green Rocky with tan cream sections	<0.008	<0.5	13	30	20	135	<1		
2952		525 E	3.0m WBR light green, cream & tan slightly slippery	"	"	13	25	40	80	"		
2953		520 E	2.2m WBR tan & khaki/green Rocky bedded	"	"	7	40	50	125	"		
2954		515E	2.8m WBR khaki/green	"	"	14	55	40	140	"		
2955		510E	1.1m WBR khaki, finely bedded	"	"	2	15	40	165	"		
2956		505E	0.6m WBR Green-light tan Rocky bedded	"	"	7	15	35	125	"		
2957		500E	0.8m WBR Tan-green finely bedded	"	"	20	95	35	245	"		
2958		495E	0.9m WBR lighter green-tan crumbly	"	"	15	85	40	295	"		
2959		490E	3.8m WBR Tan, pink/brown-green	"	"	16	125	30	185	"		
2960		485E	1.0m WBR Old red brick coloured vein green clayey WBR	"	"	12	30	30	130	"		
2961		480E	3.8m WBR Red brown, dark brown-khaki	"	"	2	125	25	225	"		
2962		475E	0.7m WBR orange/brn with dk brn bands-streaks	"	"	12	30	25	135	"		
2963		470E	1.7m WBR " " " " " " " "	"	"	12	50	20	170	"		
2964	55N	580E	0.6m WBR grey gravelly looking	"	"	1	10	30	45	"		
2965		575E	0.3m WBR " " "	0.010	0.5	13	5	35	20	"		
2966		570E	0.5m WBR " " "	<0.008	<0.5	12	5	45	25	7		
2967		565E	1.7m BR fine grained gravelly looking with dk green tinge	0.024	1.0	26	15	90	285	"		
2968		560E	1.8m fine grained gravelly rock with light tan tinge	<0.008	<0.5	15	5	140	130	"		
2969		555E	1.0m WBR grey gravelly	"	0.5	95	35	45	65	"		
3000		550E	0.9m WBR grey fine gr. gravelly with light green tinge	0.025	<0.5	9	20	65	35	"		

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

COLLECTED BY: N Potter

PROJECT: Tyndall PROSPECT: Henty SAMPLE STORAGE REQ'D: LABORATORY: Amdel's DATE DISPATCHED:

1 ~~250~~.000 SHEET: H9 TYPE OF SAMPLE: Wacka SAMPLE PREP. REQ'D: ANALYSIS REQ'D: DATE RECEIVED: Feb '86

A1996

SAMPLE NUMBER	GRID LOCATION		DESCRIPTION	ANALYSES (ppm)								
				Au	Ag	As	Cu	Pb	Zn	Bi		
3001	55N	545E	1.2m WBR light tan-grey	<0.008	1.5	120	65	650	3350	4		
3002		540E	2.8m WBR? brown gravelly with lt grey gravelly pebbles	"	1.0	50	50	1200	2200	<1		
3003		535E	3.0m WBR tan pinky/brn-green grey with sericite bedding	"	<0.5	61	85	435	865	"		
3004		530E	2.8m WBR tan pinky/brn " " " " "	"	0.5	42	140	275	925	"		
3005		525E	2.9m WBR tan-grey/grn finely bedded/laminated gritty chips	"	1.0	43	105	220	370	"		
3006		520E	2.7m WBR-mottled orange grey-green	0.012	<0.5	99	85	335	720	"		
3007		515E	2.2m WBR tan-khaki/grey	<0.008	"	23	140	90	330	"		
3008		510E	3.8m WBR lt-dk green vuggy tan veined clays	"	"	13	75	60	980	"		
3009		505E	2.7m WBR green (finely bedded) under tan clays	"	0.5	13	105	70	410	"		
3010		500E	1.7m WBR green, cream, grey & tan	"	<0.5	24	50	65	420	"		
3011		495E	1.1m WBR green & cream	"	"	4	35	30	125	"		
3012		490E	1.3m WBR green	"	"	7	90	60	170	"		
3013		485E	1.0m WBR "	"	"	11	35	30	180	"		
3014		480E	1.4m WBR cream with light pink tinge under tan gritty chips	"	"	2	60	20	100	"		
3015		475E	2.5m WBR Tan clayey	"	0.5	4	95	20	180	"		
3016		470E	WBR cream to light khaki gritty with tan veining Rite	"	<0.5	5	35	40	50	"		
3017		465E	1.4m WBR Olive/tan clayey under green-grey chips	"	"	7	70	40	180	"		
3018		460E	1.8m WBR " " " " " "	"	"	2	75	30	250	"		
3019		455E	1.0m WBR Olive green finely bedded under green chips	0.008	"	2	55	35	165	"		
3020		450E	0.5m WBR? Green/grey gritty in floor/plain of creek	<0.008	"	2	35	30	30	"		

0150062

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

COLLECTED BY: N. Poltak

PROJECT: Tyndall PROSPECT: Henty SAMPLE STORAGE REQ'D: LABORATORY: Analabs DATE DISPATCHED: Feb '86

1:250.000 SHEET: H9+H10 TYPE OF SAMPLE: Wacka SAMPLE PREP. REQ'D: ANALYSIS REQ'D: DATE RECEIVED:

A1996

062

SAMPLE NUMBER	GRID LOCATION		DESCRIPTION	ANALYSES (ppm)							
				Au	Ag	As	Cu	Pb	Zn	Bi	
T3021	55N	445E	0.8m WBR tan clayey with brn veining in (?) phase (?)	<0.008	<0.5	17	95	<5	135	17	
3022		440E	1.6m WBR tan clayey	"	"	3	80	"	25	3	
3023		435E	0.8m WBR cream, tan + olive less clayey	"	0.5	<1	5	"	45	<1	
3024		430E	1.4m WBR Olive/grey	"	<0.5	"	20	"	30	"	
3025	45N	360E	0.5m GRAVELS or BR - unable to penetrate	0.020	0.5	"	5	"	10	"	
3026		355E	0.6m " " " " " "	0.023	0.5	"	5	"	5	"	
3027		350E	0.7m " " " " " "	0.009	<0.5	"	5	"	5	3	
3028		345E	0.3m, 0.5m " " " " " " 5 attempts	<0.008	"	"	5	"	5	<1	
3029		340E	0.6m " " " " " "	0.017	"	"	5	"	5	"	
3030		335E	1.0m " " " " " "	0.015	"	"	5	"	5	3	
3031		330E	1.0m " " " " " "	<0.008	"	"	5	"	5	<1	
3032		325E	1.5m WBR? grey with qtz frags.	0.015	"	"	5	5	<5	3	
3033		320E	1.4m WBR? " " " "	<0.008	"	1	5	<5	5	<1	
3034		315E	2.2m grey-fawn angular gravels?	"	"	2	5	35	5	"	
3035		310E	1.1m Gravels?	0.009	"	<1	5	<5	<5	"	
3036		305E	1.3m Gravels? fawn + grey sandy	0.018	"	"	5	"	11	9	
3037		300E	1.4m GRAVELS grey qtz.	0.009	"	"	5	"	5	5	
3038		295E	1.2m GRAVELS fawn + grey qtz	<0.008	"	"	5	"	5	<1	
3039		290E	3.0m WBR green/grey finely bedded under gravels	"	"	"	30	5	70	3	
3040		285E	2.4m 2.8m fawn/grey clayey gravels unable to penetrate	"	"	1	10	<5	10	3.	

0150063

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

COLLECTED BY: N. Pollock

PROJECT: Tyndall — PROSPECT: Henty — SAMPLE STORAGE REQ'D: — LABORATORY: Analabs — DATE DISPATCHED: Feb '86

1:250.000 SHEET: H10 — TYPE OF SAMPLE: Wacka — SAMPLE PREP. REQ'D: — ANALYSIS REQ'D: — DATE RECEIVED:

A1996

SAMPLE NUMBER	GRID LOCATION		DESCRIPTION	ANALYSES (ppm) Au	Ag	As	Cu	Pb	Zn	Bi	Co
T 3041	45N	280E	25mm 3.4m WBR? grey gritty with slight green tinge	0·011	<0·5	1	30	30	35	<1	
3042		275E	3.6m WBR Grey gritty	0·012	"	<1	65	30	35	"	
3043		270E	2.5m WBR?? Purple gravelly	0·033	"	2	105	50	45	"	
3044		265E	2.6m BR? lt tan gravelly looking - multi coloured frags	0·028	"	<1	210	50	65	"	
3045		260E	1.9m WBR? tan gritty with multi coloured frags	0·008	"	5	45	15	185	5	
3046	44N	50E	1.6m WBR khaki grey	<0·008	"	28	55	210	165	<1	
3047		60E	1.8m BR? In floodplain of creek Bedrock tan-khaki rock frags	0·008	"	3	25	10	75	"	
3048		70E	Green & cream BR or black in (float) plain & creek { under rounded gravels	<0·008	"	6	25	40	85	5	
3049		80E	2.4m WBR khaki fresh bedrock under green chips	0·009	"	2	35	35	260	<1	
3050		90E	1.9m WBR? Green/grey gravelly looking	<0·008	"	3	15	5	65	"	
3051		100E	1.5m Cream grey rock frags. under to be rotated	"	"	4	15	10	55	"	
3052		110E	2.5m WBR tans green-grey under orange tan chips	0·011	"	35	150	125	360	3	
3053		120E	2.3m WBR orange tans, green & grey	<0·008	"	33	65	5	105	<1	
3054		130E	4.5m light grey bitty looking rock with dk grey pods with slight green tinge }	0·013	"	26	10	<5	140	"	
3055		140E	0.8m WBR Cream & lt tan fresh bedrock under tan chips	0·025	"	37	40	20	65	"	
3056		150E	0.6m light tan bitty looking rock	<0·008	"	1	65	<5	15	"	
3057		160E	0.5m CWBR Cream to biscuit colour - flakey	"	"	1	85	"	70	"	
3058		170E	0.9m WBR bedded green, cream & tan gritty	"	"	<1	60	"	75	"	
3059		180E	2.6m WBR khaki/green looking	"	"	"	145	"	185	"	
3060		190E	2.0m WBR green looking with tan staining under khaki/tan gritty chips	0·013	"	"	20	10	110	"	

0150064

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

PROJECT: Tyndall PROSPECT: Henty SAMPLE STORAGE REQ'D: LABORATORY: Analabs DATE DISPATCHED: Feb '86

1:250,000 SHEET: H10 TYPE OF SAMPLE: Wacka SAMPLE PREP. REQ'D: ANALYSIS REQ'D: DATE RECEIVED:

SAMPLE NUMBER	GRID LOCATION		DESCRIPTION	ANALYSES (ppm) Au	Ag	As	Cu	Pb	Zn	Bi
T3061	44N	200E	2.3m WBR tan, green cream mottled gritty	0.013	<0.5	<1	10	<5	50	<1
3062		210E	2.3m WBR lt grey/grn flaky under tan gritty chips with dk blu vein running thru weathered?	<0.008	"	"	10	"	70	"
3063		220E	1.4m WBR?? Green, tan & cream/grey gritty	"	0.5	"	10	"	55	"
3064		230E	1.7m WBR w/ floats? dark grey under fawn grey gritty chips.	0.011	0.5	"	5	"	20	"
3065		240E	1.9m WBR dk grey-tan finely bedded with qtz vein?	<0.008	0.5	1	10	"	80	"
3066		250E	0.6m WBR Grey finely bedded	"	0.5	<1	10	5	60	"
3067		260E	0.6m Grey, tan, cream & greenish gritty WBR w/ floaters in flood plain	"	<0.5	"	5	<5	30	"
3068		270E	0.8m WBR light green/grey finely bedded	"	0.5	"	5	5	65	3
3069		280E	1.7m Brown sands & gravels unable to penetrate	"	<0.5	"	10	5	10	4
3070		290E	1.5m WBR?? Grey green tan mottled gritty	0.010	"	"	20	35	15	<1
3071		300E	1.5m WBR Grey-light tan finely bedded	0.021	"	8	10	5	55	5
3072		310E	1.0m Fawn/grey gritty WBR or gravels??	0.021	"	<1	5	<5	20	<1
3073		320E	1.5m Tan & grey gritty WBR or gravels	<0.008	0.5	"	5	5	45	"
3074		330E	0.8m fawn & grey gravels unable to penetrate	"	<0.5	"	5	<5	5	"
3075		340E	1.4m Grey/tan finely bedded WBR under gravels	"	"	2	25	20	35	2
3076		350E	0.4m-0.7m 3 attempts unable to penetrate gravels	"	"	<1	5	<5	10	<1
3077	43N	300E	Conglomerate rock chips	0.046	"	"	5	"	5	5
3078		290E	0.6m WBR Grey with greenish beige finely bedded	<0.008	"	"	5	"	70	5
3079		280E	1.8m WBR?? tan, cream & grey green mottled in small creek? (floodplain)	"	"	4	20	5	65	<1
3080		270E	2.0m WBR grey finely bedded under biscuit gritty chips	0.009	0.5	<1	5	<5	10	"

015065

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

COLLECTED BY: N. Pollock

PROJECT: Tyrdall PROSPECT: Henty SAMPLE STORAGE REQ'D: LABORATORY: Analabs DATE DISPATCHED: Feb '86

1:~~200~~2.000 SHEET: H10 TYPE OF SAMPLE: Wacka SAMPLE PREP. REQ'D: ANALYSIS REQ'D: DATE RECEIVED:

A195

SAMPLE NUMBER	LOCATION GRID		DESCRIPTION	ANALYSES (ppm) Au	Ag	As	Cu	Pb	Zn	Bi	
T3081	43N	260E	1.9m WBR? Greenish grey	<0.005	<0.5	<1	5	<5	20	2	
3082		250E	2.3m WBR Grey finely bedded	"	0.5	"	10	"	65	<1	
3083		240E	0.6m WBR " " "	"	<0.5	2	20	"	80	"	
3084		230E	0.7m WBR " " " with tan veining	"	"	<1	10	5	80	"	
3085		220E	1.2m WBR Dark grey " " " greenish tinge	"	"	"	20	<5	75	"	
3086		210E	0.8m WBR Dark grey finely bedded mudst: tan/grey sandy WBR?	"	0.5	"	5	"	60	"	
3087		200E	WBR? fawn/biscuit gravelly next to Qc	"	0.5	"	5	"	10	"	
3088		190E	0.8m fawn/grey gravels or BR?	"	<0.5	"	5	"	5	2	
3089		180E	0.6m fawn/grey gravels or BR? 2 attempts	"	"	"	5	"	10	<1	
3090		170E	1.0m Conglomerate, BR or boulders under tan sandy soils	"	0.5	"	10	5	15	"	
3091		160E	0.8m As 3088 but with khaki/tan cap	"	0.5	15	5	<5	10	"	
3092		150E	1.4m WBR light tan finely bedded	"	0.5	<1	5	"	115	"	
3093		140E	1.1m WBR Green finely bedded Upside: Grey/green/pink nodules flecky with tan veins	"	1.0	"	5	"	145	"	
3094		130E	1.4m WBR Pinky-green flecky mudstone fleecy clays	0.010	<0.5	"	5	"	130	"	
3095		120E	0.4m WBR khaki fleecy	<0.003	"	"	5	"	100	2	
3096		110E	2.2m WBR grey/tan	0.010	"	2	10	5	70	<1	
3097		100E	0.6m Green-mauve gravels. Unable to penetrate	0.013	1.0	1	10	10	25	"	
3098		090E	2.3m WBR Green, grey-tan finely bedded mottled	<0.003	<0.5	8	35	<5	110	"	
3099		080E	bit. tan chip unable to penetrate - fleecy plain	0.013	"	1	5	5	15	"	
3100		070E	0.8m Green-tan frags. - clays flecky plain & creek unable to penetrate	<0.003	0.5	5	20	15	70	"	

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APPENDIX 4

A REPORT ON THE HENTY FAULT I.P. SURVEY

BY MITRE GEOPHYSICS

A PRELIMINARY REPORT ON THE HENTY FAULT IP SURVEY

A dipole-dipole IP survey has been carried out along strike over the Henty Fault. The work was done by Solo Geophysics in January, 1986 using a Huntec mk4 receiver. This report gives a preliminary interpretation and recommends some drill targets. A report in preparation (Bishop, 1986) will examine the data in more detail; this will include a spectral analysis and the merging of data using different dipole lengths (after Edwards, 1977). (Further drilling recommendations may arise from examination of the more subtle anomalies and the results of the spectral analysis.)

The survey covered a strike length of approximately 6kms. A dipole spacing of 150m was used, read down to n=6. (A well-drilled area of the fault was tested with 50m, 100m, 150m & 200m dipoles. The 150m spacing gave the most useful results and this was used for the rest of the line.) The survey was apparently most successful and two distinct IP anomalies were defined, one over the well-drilled area (labelled the Southern Anomaly) and the other, partially drilled, to the north (labelled the Northern Anomaly). The anomalies are very similar in form and have the classical 'trouser-leg' shape.

The target of the survey was a body (or bodies) of gold-bearing, disseminated pyrite parallel to strike. These bodies were expected to be related in some way to the Henty Fault structure (ie, not necessarily fault-bound). An along-strike body is a three dimensional body (ie, it is of limited dimension in all directions) and is not readily amenable to computer modelling. However there is a limited amount of scale modelling available to aid interpretation.

It is known from drilling that there are at least two (?)parallel sulphide bodies causing the Southern anomaly. These cannot be separated in the IP results and a single equivalent body has been interpreted. Figure 1 shows a cross-section of a body that should account for the bulk of the anomaly. The across-strike dimension of the body is at least 1/4 of a dipole spacing; ie, at least 35-40m.

Although the 'best' intersections were within the boundary of the model, several good intersections were obtained outside of it. The model is clearly inadequate, but it can be used to identify where the highest concentrations of sulphide should occur. (A 'halo' of sulphide may presumably also be expected to the south; to perhaps 2100N.) The depth extent of the model is not well resolved; ie, a change of say 50m, plus or minus, would not greatly change the results. It is also possible that the source has a considerably greater depth extent. The recommended drill-hole shown in Figure 1 is designed to test this possibility.

The shape of the southern 'leg' of the Southern Anomaly is consistent with an interference response from two separate

sources, however DDH HFZ12 has shown that there is a significant amount of sulphide here and further testing may be warranted. However this would require even deeper drilling.

The same model has been used to interpret the Northern Anomaly. In this case, only one drill-hole (DDH HFZ1) has confirmed the (shallow extent of the) source (see Figure 2). The recommended hole has been targeted to test at depth, but within the bounds of a (?)minimum source.

Further holes are probably warranted; at least on the Southern Anomaly, however any recommendations should await the results from the drill-holes suggested here.

J.R. Bishop
March, 1986

Bishop, J.R., 1986. Interpretation of the Henty Fault IP survey. Mitre Geophysics report 86/03 (in preparation).

Edwards, L.S., 1977. A modified pseudosection for resistivity and IP. Geophysics, vol. 42, no. 5. pp 1020-1036.

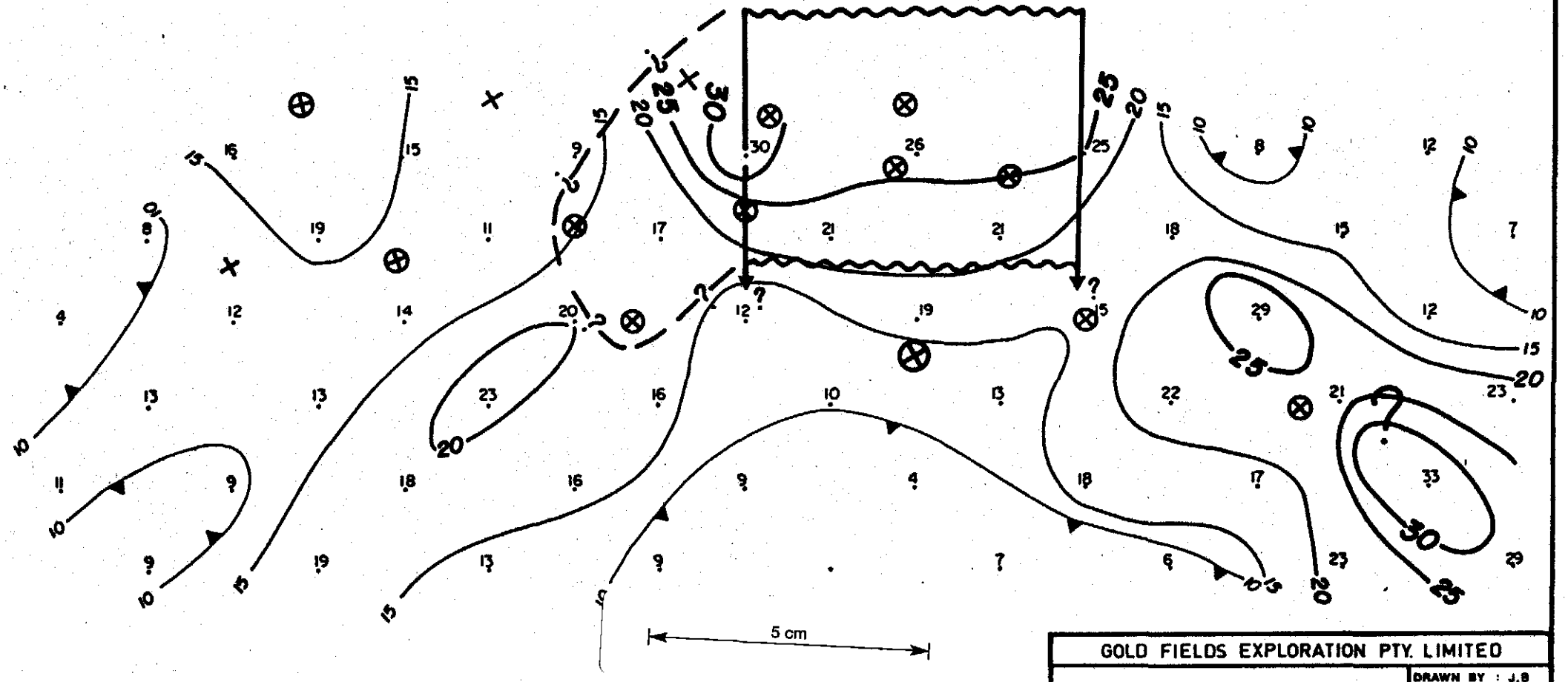
015070

069

ELECTRODE POSITIONS

3000N

2000N



X DDH with little sulphide

⊗ DDH with sulphide intersection

⊗ Recommended DDH

← Boundory of interpreted IP source

Survey by : Solo Geophysics

Date: Jan., 86

rx: Huntec IV

GOLD FIELDS EXPLORATION PTY. LIMITED

TYNDALL - E.L.9/66

HENTY FAULT

IP SURVEY

'Southern Anomaly'

Total Chargeability

DRAWN BY : J.B

DRAFTSMAN: S.F.

DATE : JUNE/86

REVISIONS :

FILE NO.

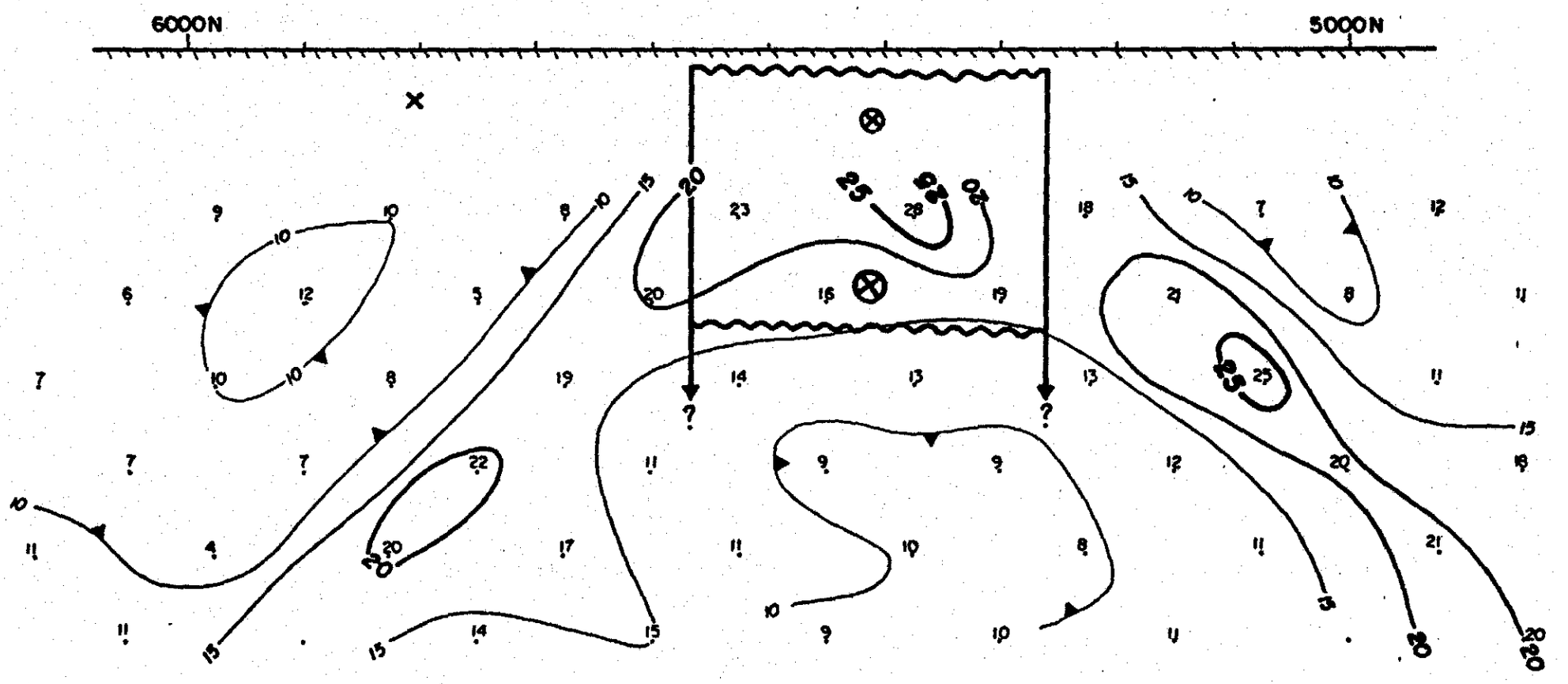
SCALE 1: 5,000 (50 0 100 Metres)

FIG. 1

015071

070

ELECTRODE POSITIONS



× DDH with little sulphide

⊗ DDH with sulphide intersection

⊗ Recommended DDH

← Boundary of interpreted IP source

Survey by : Solo Geophysics

Date : Jan.,86

rx : Huntec IV

GOLD FIELDS EXPLORATION PTY. LIMITED

TYNDALL - E.L.9/66

HENTY FAULT

IP SURVEY

'Northern Anomaly'

Total Chargeability

DRAWN BY : J.B.

DRAFTSMAN: S.F.

DATE : Mar., 86

REVISIONS :

FILE NO.

SCALE 1:5000 50 0 100 Metres

FIG. 2

071

071

071

015072

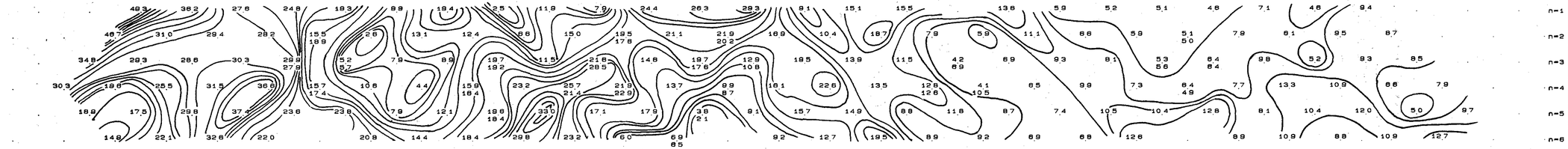
TOPOGRAPHY

CULTURE PLAN

350 500 650 800 950 1100 1250 1400 1550 1700 1850 2000 2150 2300 2450 2600 2750 2900 3050 3200 3350 3500 3650 3800 3950 4100 4250 4400 4550 4700

APPARENT CHARGEABILITY (mv/v)

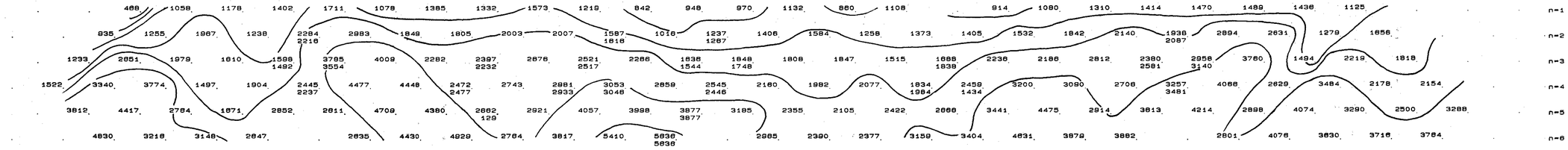
CONTOUR INTERVAL 0 msec



350 500 650 800 950 1100 1250 1400 1550 1700 1850 2000 2150 2300 2450 2600 2750 2900 3050 3200 3350 3500 3650 3800 3950 4100 4250 4400 4550 4700 STATION

APPARENT RESISTIVITY (ohm m)

LOGARITHMIC CONTOUR INTERVAL



RENISON LIMITED

Area : ZEEHAN, TASMANIA

Grid : HENTY FAULT

Line No: 99E

Setup points : 2450N ; 1250N ; 3800N ;

Scale : 1: 7500

Date : 070286-080286

Job No. 612

5 cm

INSTRUMENTATION USED

Rx Type : Huntec Mk Iv s/n

Tx Type : Huntec MK IV 7.5 kW

SURVEY : I.P.& RESISTIVITY

METHOD : Dipole, Dipole Array L= 150m

Time sequence : 2 sec on, 2 sec off

Integration time recorded: Channels 0-9

Integration time plotted : Channels 0- 9

Delay time, TD : 50 msec. after cut off

Linear channel width : 150 msec.

SECTION A : Apparent Chargeability (mv/v) contour interval 0 msec

SECTION B : Apparent Resistivity (ohm m) logarithmic contour interval

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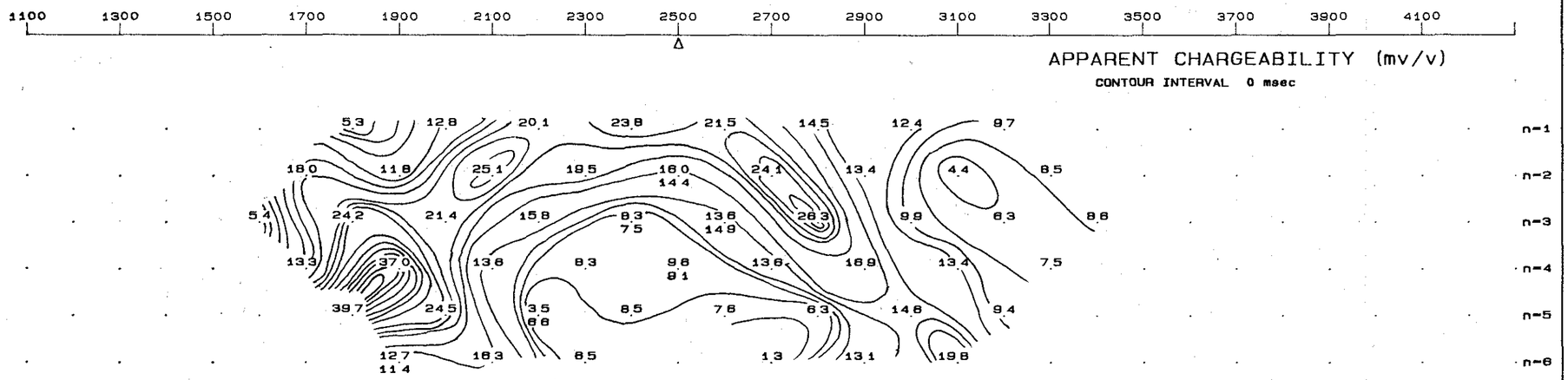
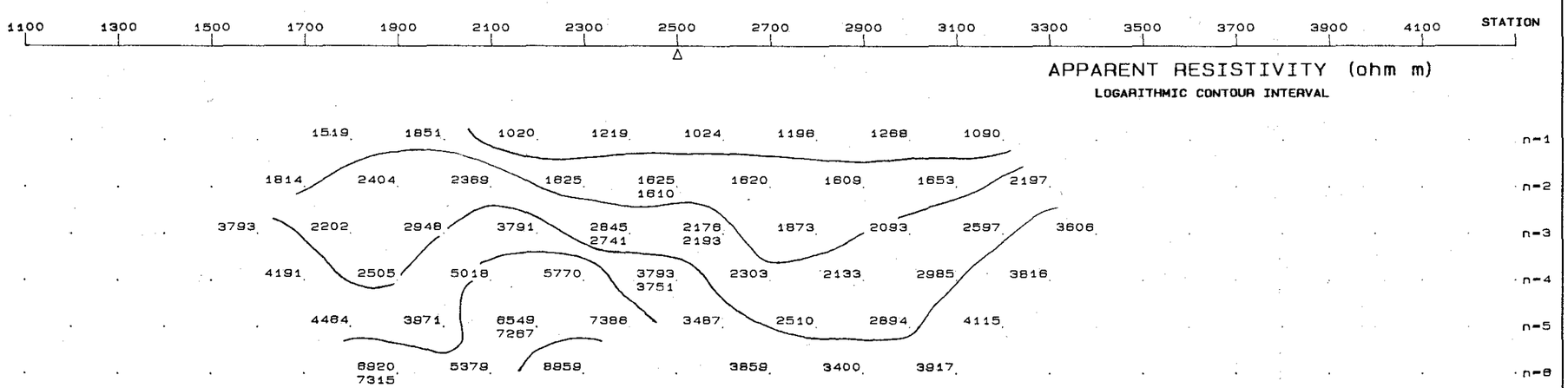
86-2565 1/3

TOPOGRAPHY

CULTURE PLAN





RENISON LIMITED

Area : ZEEHAN, TASMANIA (#3)

Grid : HENTY FAULT

Line No: 99E

Setup points : 2500N ;

Scale : 1: 10000

Date : 260186

Job No. 612

5 cm

INSTRUMENTATION USED

Rx Type : Huntec Mk Iv s/n

Tx Type : Huntec Mk IV 7.5 kW

SURVEY : I.P.& RESISTIVITY

METHOD : Dipole, Dipole Array L= 200m

Time sequence : 2 sec on, 2 sec off
Integration time recorded: Channels 0-9
Integration time plotted : Channels 0- 9
Delay time, TD : 50 msec. after cut off
Linear channel width : 150 msec.

SECTION A : Apparent Chargeability (mv/v)
contour interval 0 msec

SECTION B : Apparent Resistivity (ohm m)
logarithmic contour interval

Surveyed by SOLO GEOPHYSICS & Co

073

073

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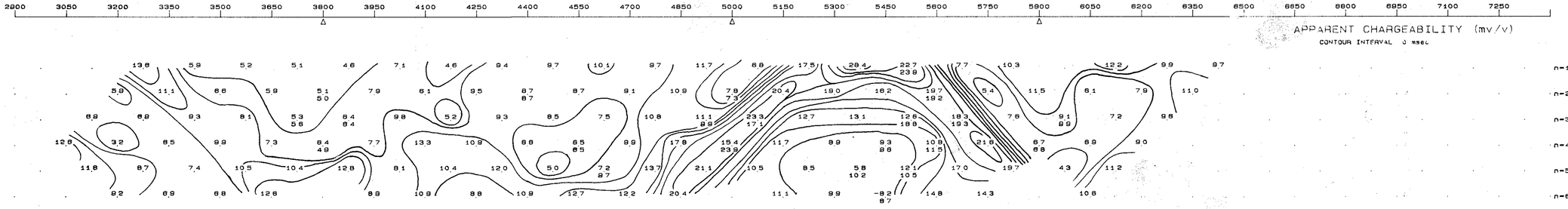
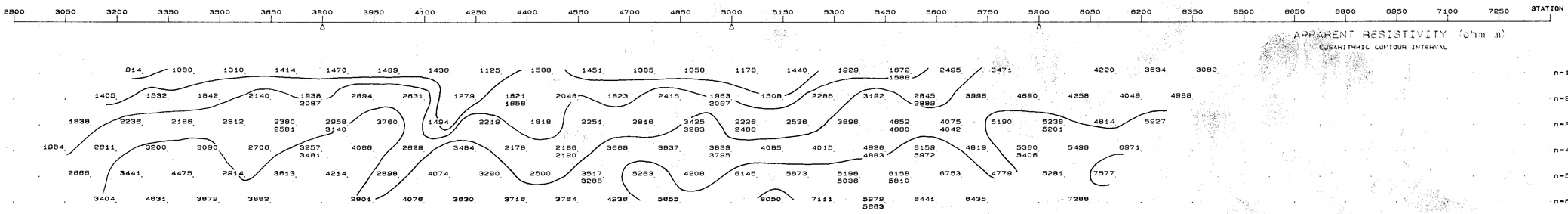
TOPOGRAPHY

CULTURE PLAN





RENISON LIMITED

Area : ZEEHAN, TASMANIA (#6)

Grid : HENTY FAULT

Line No: 99E

Setup points : 5000N ; 3800N ; 5900N ;

Scale : 1: 7500

Date : 110286-120286

Job No. 612

5 cm

INSTRUMENTATION USED

Rx Type : Huntec Mk Iv s/n

Tx Type : Huntec Mk IV 7.5 kW

SURVEY : I.P.& RESISTIVITY

METHOD : Dipole.Dipole Array L= 150m

Time sequence : 2 sec on, 2 sec off
Integration time recorded: Channels 0-9
Integration time plotted : Channels 0- 9
Delay time, TD : 50 msec. after cut off
Linear channel width : 150 msec.

SECTION A : Apparent Chargeability (mv/v) contour interval 0 msec

SECTION B : Apparent Resistivity (ohm m) logarithmic contour interval

Surveyed by SOLO GEOPHYSICS & Co

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074

074

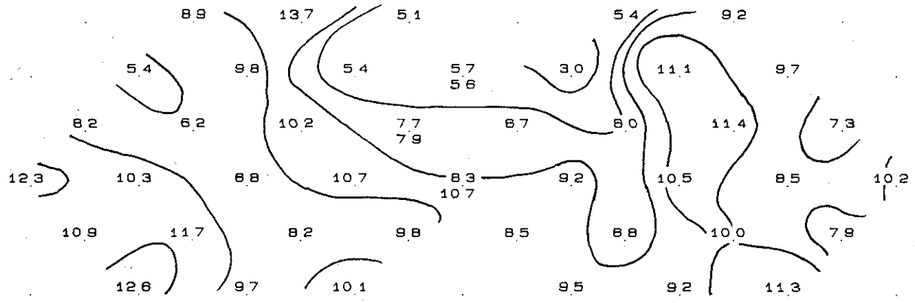
TOPOGRAPHY

CULTURE PLAN

2400 2600 2800 3000 3200 3400 3600 3800 4000 4200 4400 4600 4800 5000 5200 5400

APPARENT CHARGEABILITY (mv/v)

CONTOUR INTERVAL 0 msec

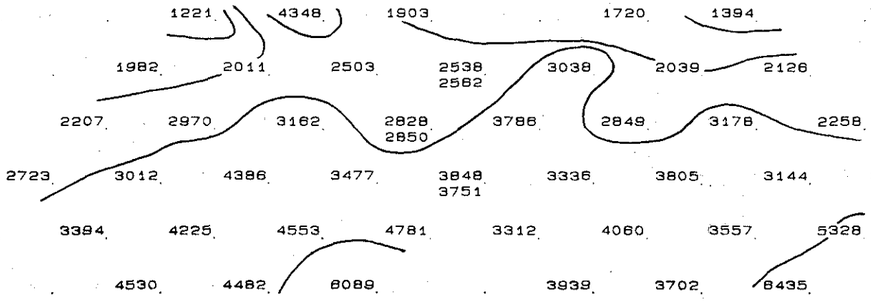


n=1 n=2 n=3 n=4 n=5 n=6

2400 2600 2800 3000 3200 3400 3600 3800 4000 4200 4400 4600 4800 5000 5200 5400 STATION

APPARENT RESISTIVITY (ohm m)

LOGARITHMIC CONTOUR INTERVAL



n=1 n=2 n=3 n=4 n=5 n=6

RENISON LIMITED

Area : ZEEHAN, TASMANIA (#8)

Grid : HENTY FAULT

Line No: 99E

Setup points : 3800N ;

Scale : 1: 10000

Date : 160186-160186

015075

Job No. 612

5 cm

INSTRUMENTATION USED

Rx Type : Huntec Mk Iv s/n

Tx Type : Huntec Mk IV 7.5 kW

SURVEY : I.P.& RESISTIVITY

METHOD : Dipole.Dipole Array L= 200m

Time sequence : 2 sec on, 2 sec off

Integration time recorded: Channels 0-9

Integration time plotted : Channels 0- 9

Delay time, TD : 50 msec. after cut off

Linear channel width : 150 msec.

SECTION A : Apparent Chargeability (mv/v)
contour interval 0 msec

SECTION B : Apparent Resistivity (ohm m)
logarithmic contour interval

Surveyed by SOLO GEOPHYSICS & Co

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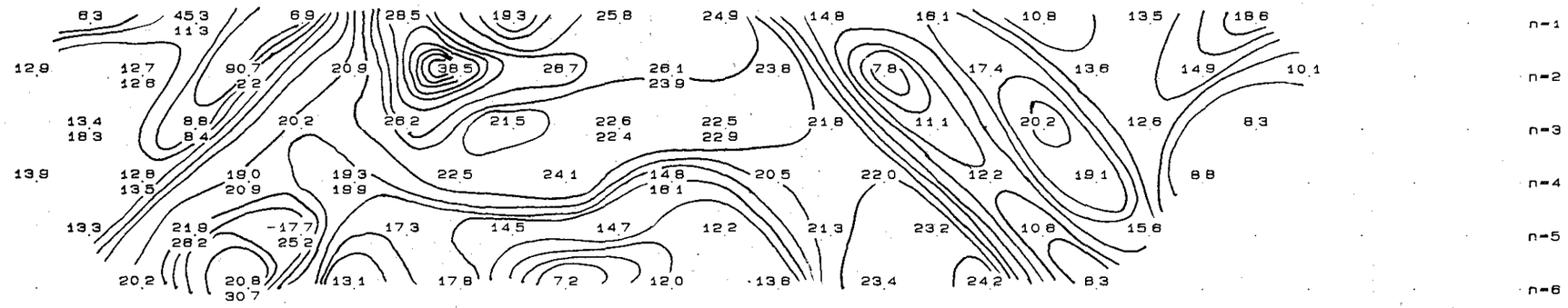
TOPOGRAPHY

CULTURE PLAN

1900 2000 2100 2200 2300 2400 2500 2600 2700 2800 2900 3000 3100 3200

APPARENT CHARGEABILITY (mv/v)

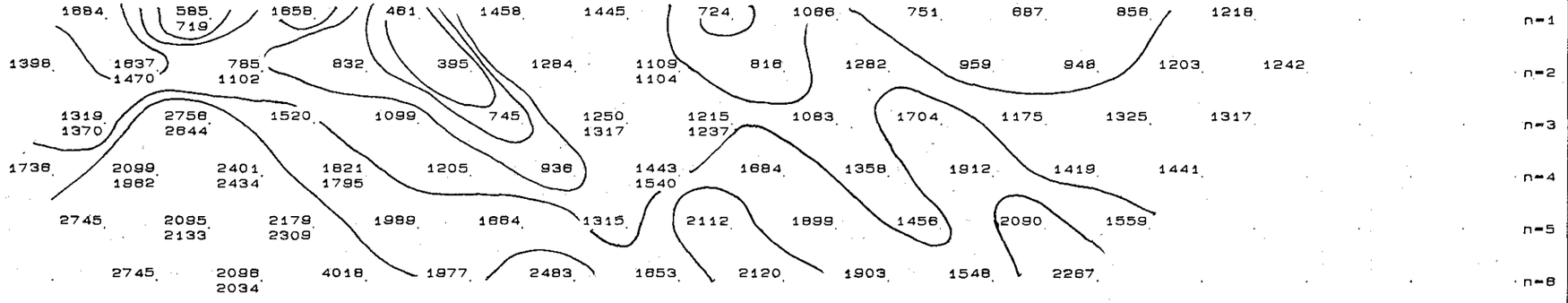
CONTOUR INTERVAL 2 msec



1900 2000 2100 2200 2300 2400 2500 2600 2700 2800 2900 3000 3100 3200 STATION

APPARENT RESISTIVITY (ohm m)

LOGARITHMIC CONTOUR INTERVAL



RENISON LIMITED

075

Area : ZEEHAN, TASMANIA

Grid : HENTY FAULT

Line No: 99E

Setup points : 2500N ;

Scale : 1: 5000

015076

Date : 300186

Job No. 612

5 cm

INSTRUMENTATION USED

Rx Type : Huntec Mk Iv s/n

Tx Type : Huntec Mk IV 7.5 kW

SURVEY : I.P.& RESISTIVITY

METHOD : Dipole.Dipole Array L= 100m

Time sequence : 2 sec on, 2 sec off
Integration time recorded: Channels 0-9
Integration time plotted : Channels 0- 9
Delay time, TD : 50 msec. after cut off
Linear channel width : 150 msec.

SECTION A : Apparent Chargeability (mv/v) contour interval 2 msec

SECTION B : Apparent Resistivity (ohm m) logarithmic contour interval

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076

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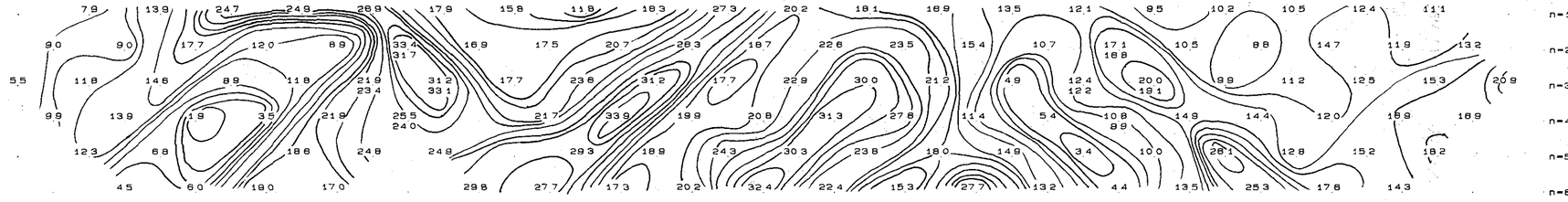
TOPOGRAPHY

CULTURE PLAN

1800 1850 1900 1950 2000 2050 2100 2150 2200 2250 2300 2350 2400 2450 2500 2550 2600 2650 2700 2750 2800 2850 2900 2950 3000

APPARENT CHARGEABILITY (mv/v)

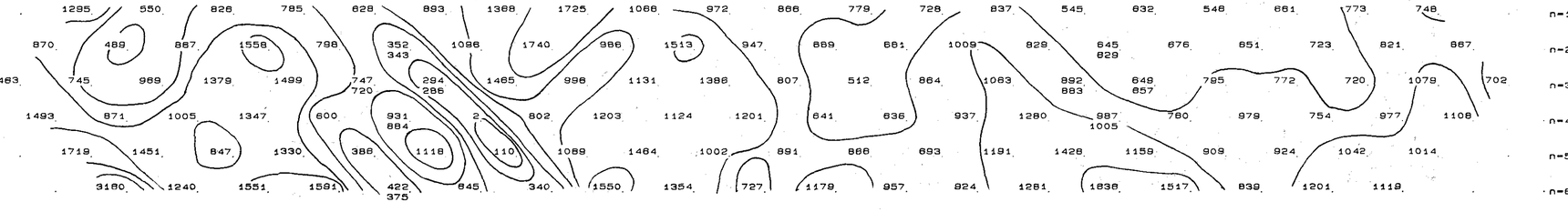
CONTOUR INTERVAL 2 msec



1800 1850 1900 1950 2000 2050 2100 2150 2200 2250 2300 2350 2400 2450 2500 2550 2600 2650 2700 2750 2800 2850 2900 2950 3000 STATION

APPARENT RESISTIVITY (ohm m)

LOGARITHMIC CONTOUR INTERVAL



RENISON LIMITED

Area : ZEEHAN, TASMANIA

Grid : HENTY FAULT

Line No: 99E

Setup points : 2250N ; 2750N ;

Scale : 1: 2500

Date : 240186-250186

Job No. 612

015077

5 cm

INSTRUMENTATION USED

Rx Type : Huntec Mk IV s/n

Tx Type : Huntec Mk IV 7.5 kW

SURVEY : I.P.& RESISTIVITY

METHOD : Dipole,Dipole Array L= 50m

Time sequence : 2 sec on, 2 sec off

Integration time recorded: Channels 0-9

Integration time plotted : Channels 0- 9

Delay time, TD : 50 msec. after cut off

Linear channel width : 150 msec.

SECTION A : Apparent Chargeability (mv/v) contour interval 2 msec

SECTION B : Apparent Resistivity (ohm m) logarithmic contour interval

Surveyed by SOLO GEOPHYSICS & Co

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APPENDIX 5

DIAMOND DRILL HOLES HP7-HP9, LOGS AND ASSAYS

GOLD FIELDS EXPLORATION PTY. LIMITED

DRILL CORE RECORD

015079

HOLE NO.: N.P.7
STATE : TASMANIA

PROJECT	TYNDALL
DESIGNED BY	C. PEASE
LOGGED BY	A. CARTWRIGHT
COMMENCED	30.1.86
COMPLETED	18.3.86

PURPOSE

To test for a deeper occurrence of the mineralisation encountered in N.P.4.

LOG SUMMARY / GENERAL COMMENTS

A strongly mineralised/altered system was intersected on the footwall side of the Henty Fault. Although this appeared a promising intersection with abundant visible base metal mineralisation in both sulphide zones, the assays were not as encouraging.

ASSAY SUMMARY

INTERVAL From	INTERVAL To	Width	Au	Ag	Cu	Pb	Zn	As	Bi	(all p.p.m.)				COMMENTS
363.0	382.0	19.0m	0.79	4.6	1049	2308	2986	73	10					
Including														
372.0	376.0	4.0m	2.22	8.9	1461	6090	8745	145	42					ZONE A
404.0	408.7	4.7m	0.52	4.8	2453	1960	161	61	8					ZONE B

LOCATION

NORTHING	5363978
EASTING	379883
R.L.	623.7
GRID	A.M.G.
LENGTH	497.5

HOLE CONDITION

SIZE Hole Size	SIZE Depth
HW	0.0- 11.0
HW reamed	11.0- 33.0
HQ	11.0-378.5
NQ	378.5-497.5

SIGNIFICANT CORE LOSS INTERVALS From	To	% Lost
11.0	22.0	80

POOR GROUND CONDITION ZONES From	To	Condition
0.0	22.0	Strongly weathered rock
363.6	424.0	Henty Fault Zone. Strongly
		sheared and intensely shattered
		rock fragments and sericitic
		clays.

HOLE CONDITIONS AFTER COMPLETION

Hole is open to 301.0m, where HQ casing was cut.
Remaining in hole are: 77.0m of HQ casing (301-378m) and 33.0m of HW casing (surface - 33m).

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

SURVEY Depth	SURVEY Bearing	SURVEY Dip	INTERVAL From	INTERVAL To	INTERVAL Distance	VERTICAL D. Sin. Dip	VERTICAL R.L.	HORIZONTAL D. Cos. Dip	HORIZONTAL Prog. Total
0.0	078	65.0	0.0	12.0	12.0	10.9	612.8	5.1	5.1
24.0	077	66.0	12.0	35.0	23.0	21.0	591.8	9.4	14.4
46.0	077	66.0	35.0	61.5	26.5	24.2	567.6	10.8	25.7
77.0	in rods	65.0	61.5	99.0	37.5	34.0	533.6	15.9	41.1
21.0	078	63.0	99.0	147.5	48.5	43.2	490.4	22.0	63.1
174.0	078	60.0	147.5	195.5	48.0	41.6	448.8	24.0	87.1
217.0	079	58.0	195.5	241.0	45.5	38.6	410.2	24.1	111.2
265.0	078	56.0	241.0	282.5	41.5	34.4	375.8	23.2	134.4
300.0	081	53.5	282.5	313.5	31.0	24.9	350.9	18.4	152.8
327.0	080	53.0	313.5	340.5	27.0	21.6	329.3	16.3	169.1
354.0	081	52.5	340.5	377.5	37.0	29.4	299.9	22.5	191.6
401.0	084	51.0	377.5	424.0	46.5	36.1	263.8	29.3	220.9

SURVEY Depth	SURVEY Bearing	SURVEY Dip	INTERVAL From	INTERVAL To	INTERVAL Distance	VERTICAL D. Sin. Dip	VERTICAL R.L.	HORIZONTAL D. Cos. Dip	HORIZONTAL Prog. Total
447	086	49.0	424.0	471.5	47.5	35.9	227.9	31.2	252.1
496	088	48.5	471.5	497.5	26.0	19.5	208.4	17.2	269.3

015080

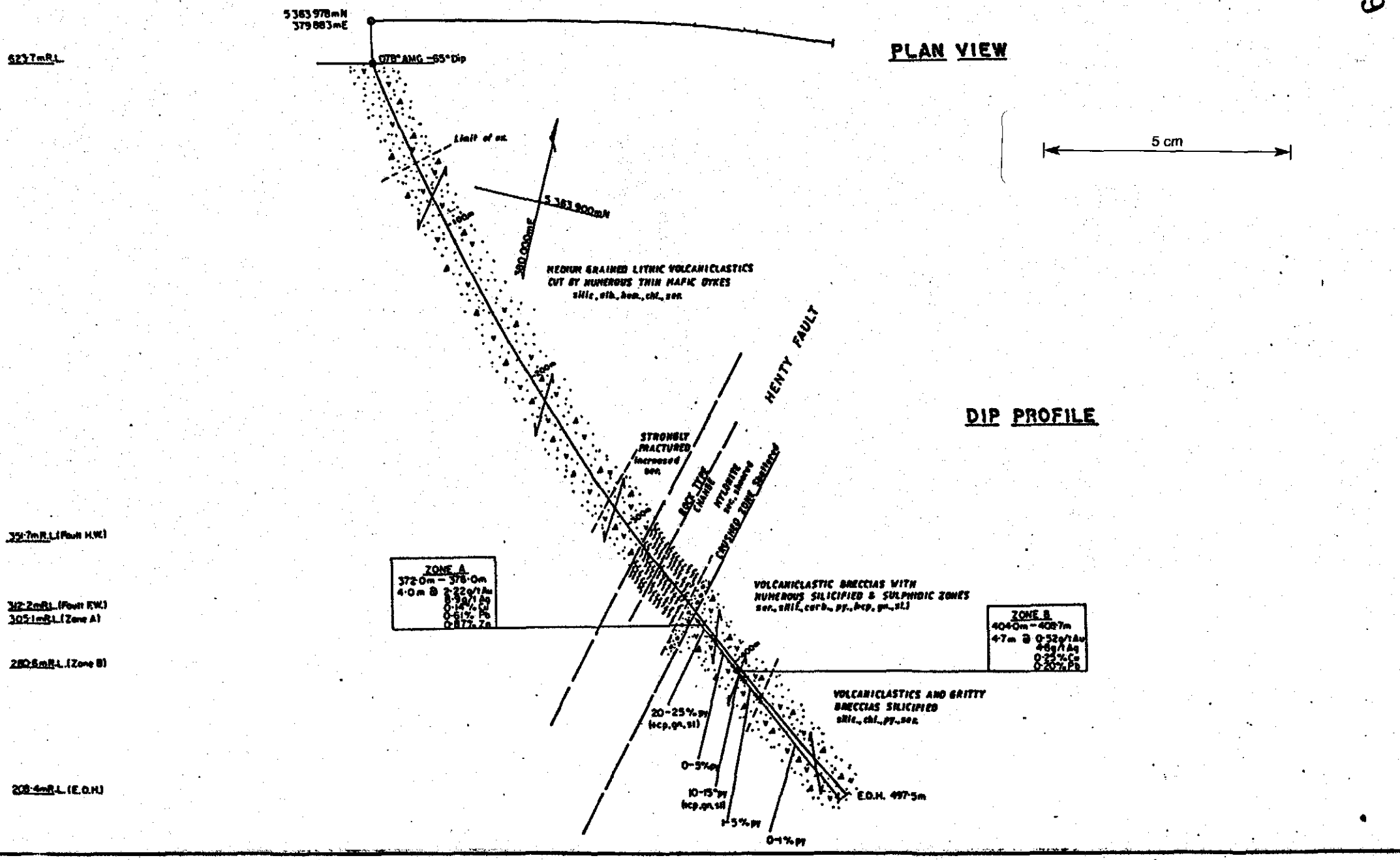
PROJECT: TYNDALL HOLE NO.: HP 7

GOLD FIELDS EXPLORATION PTY. LIMITED

DIAMOND DRILL HOLE PLOT

SCALE 1: 40 20 0 40 80 METRES

079



GOLD FIELDS EXPLORATION PTY. LIMITED

ULV. PRESS

PROJECT: TYNDALL

DRILL CORE LOG AND ASSAY DATA

HOLE NUMBER: H.P.7

Page: 080

INTERVAL		RECOVERY		DESCRIPTION	ASSAY DATA (in p.p.m.)													
From	To	m	%		Sample No.	From	To	Rec. %	Cu	Zn	As	Ag	Au	Pb	Bi			
				SUMMARISED LOG														
0.0	314.0			PINK-GREEN, MEDIUM GRAINED VOLCANICLASTICS WITH ABUNDANT LITHIC FRAGMENTS. WEAKLY ALTERED TO SERICITE-SILICA, METAMORPHOSED TO QUARTZ-ALBITE-HEMATITE-CHLORITE. CUT BY NUMEROUS, THIN MAFIC DYKES.														
314.0	363.6			*HENTY FAULT ZONE. INTENSELY SHEARED MYLONITIC CLAY-ROCK CONTAINING* CRUSHED ZONES OF COMPLETE SHATTERING. INTENSE SERICITISATION OCCURS AND ACCESSORY BATCHELORITE AND FLUORITE ARE PRESENT.														
363.6	424.0			MINERALISED ZONE. TWO STRONGLY SULPHIDIC ZONES SEPARATED BY A HIGHLY SILICIFIED UNIT. ORIGINAL ROCK TYPES ARE UNCERTAIN BUT APPEAR TO BE VOLCANICLASTIC BRECCIAS. STRONG QUARTZ-SERICITE-CARBONATE-SULPHIDE ASSEMBLAGES ARE DEVELOPED.														
424.0	497.5			GRITTY VOLCANICLASTIC BRECCIA. ALTHOUGH STRONGLY SILICIFIED, THIS LITHOLOGY IS WEAKLY ALTERED AND HAS A LOW SULPHIDE CONTENT.														
				DETAILED LOG														
				0.0 - 314.0 PINK-GREEN, SILICEOUS, MEDIUM GRAINED VOLCANICLASTICS *CUT BY NUMEROUS MAFIC DYKES.*														
0.0	11.0		0	Tricone, no core recovered.														
11.0	22.0	2.2	20	Clay, unconsolidated weathered rock fragments and mud. Pale orange-tan in colour, with a few glacial fragments in the top 0.5m.														
22.0	71.0	41.6	85	Strongly weathered, limonitic, pale orange/brown coloured rock. A pink-green volcaniclastic sequence originally, with several green mafic dykes cutting this sequence. All strongly weathered to soft rock and clayey zones. The degree of weathering decreases with depth.														
(22.0-52.0, 22.6m recovered)																		

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GOLD FIELDS EXPLORATION PTY. LIMITED

DLV. PAGES

PROJECT: TYNDALL

DRILL CORE LOG AND ASSAY DATA

HOLE NUMBER: H.F.7

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INTERVAL		RECOVERY		DESCRIPTION	ASSAY DATA (in p.p.m.)												
From	To	m	%		Sample No.	From	To	Rec.%	Cu	Zn	As	Ag	Au	Pb	Bi		
				At 62.0, zones of relatively unweathered volcaniclastics begin													
				to occur between strongly clay-weathered patches. The volcani-													
				clastics contain numerous angular lithic fragments, weathered													
				to white clays.													
71.0	283.0	212.0	100	Pale green-grey, very fine grained siliceous volcaniclastics													
				containing dark green fine and pale pink coarse lithic fragments.													
				Incipient foliation is developed at 45°CA. Thin "metamorphic"													
				veins are common. The core is moderately fractured and limonite													
				joint coatings are well developed. This unit is quite massive													
				and structureless. The limonite disappears soon after 80.0m.													
				At 83.0, a 1.0m thick deep green, fine grained mafic dyke cuts													
				the volcaniclastic sequence.													
				The pink hue developed by the metamorphic veins and within the													
				rock groundmass is probably a regional metamorphic albitisation.													
				It is strongly developed in patches.													
				Another mafic dyke, 1.1m thick, occurs at 89.0.													
				At 103.7, a 1.0m fracture zone occurs consisting of blockily													
				fractured pieces of core to small cobble size.													
				At 108.8, a moderately-strongly fractured zone occurs, extending													
				down to 111.0, with limonite developed on fracture faces.													
				A further 0.3m downhole, a 2.2m thick green mafic dyke cuts													
				the core.													
				Below 116.0, the core is gritty volcaniclastics - numerous pink													
				chips in a green matrix.													
				At 122.0, a 3.3m fractured zone produces wedges and blocks													
				of hard rock with clayey seams. Below this zone the rock type													
				changes to possible epiclastic sequences amongst the pyroclastic-													
				volcaniclastics. Mafic dykes are also present. The normal													
				pink-green volcaniclastics return at 135.2, however the pale													
				brown sericitic veinlets/joint coatings that have been present													
				since 122.0, occur down to 143.6.													
				At 147.7 a mafic dyke occurs to 150.4. Another occurs between													
				152.2 and 154.8. Another dyke, 6.3m wide, occurs at 160.0.													
				Between these dykes the volcaniclastics contain abundant pale													
				brown sericitic veinlets.													

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DRILL CORE LOG AND ASSAY DATA

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INTERVAL From	INTERVAL To	RECOVERY m	RECOVERY %	DESCRIPTION
				Below 169.5, the volcaniclastics are strongly quartz veined
				and very pink in colour (hematite-siliceous). This ends at
				172.0. A mafic dyke occurs at 172.6, ending at 175.9. At 183.9,
				the pink colour with the pale brown sericitic veinlets returns.
				This lasts until 186.5, where a 0.5m fractured zone occurs.
				Below 187.0, the pink-green unaltered volcaniclastic returns -
				moderately fractured. Thin mafic dykes are present also.
				Below 200.0, the rock is pinker in colour and more siliceous.
				This ends at 213.0, then back to pink/green volcaniclastics,
				foliated strongly at 45°CA.
				A mafic dyke occurs between 221.2 and 222.6. Thick, white,
				quartzose metamorphic veins cut the sequence irregularly.
				A series of mafic dykes occurs between 235.6 and 239.6. At
				240.0, the core becomes red-pink in colour and more siliceous.
				This pink sequence is cut by mafic dykes between 247.0 and
				252.3, and ends at 257.0.
				At 261.2, a mafic dyke, 7.1m thick, occurs.
				At 278.1, *the red-pink-siliceous alteration/metamorphism returns.*
				Dark green unaffected volcaniclastic lenses remain through
				the sequence. Between 278.0 and 280.5 a sericitic-fractured
				zone occurs. The reddish-pink sequence ends at 283.0, where
				the rock is pale pink in colour.
283.0	314.0	31.0	100	This pale pink-brown volcaniclastic sequence is finer grained
				than previous units and is moderately sericite (brown colour),
				the sericite occurring as thin veinlets. The core is moderately
				fractured and quartz veined. It is moderately foliated at
				50°CA.
				At 296.7 a she ared mafic dyke occurs. The dyke is 3.5m thick.
				Below this dyke the volcaniclastics are green in colour but
				still retain the sericitisation developed above.
				At 308.5 a 0.5 clayey fractured zone occurs and below this
				the rock returns to the pink-red variety.
				At 312.4, patches of the rock become *pervasively sericitised.*

ASSAY DATA (in p.p.m.)

Sample No.	From	To	Rec. %	Cu	Zn	As	Ag	Au	Pb	Bi			

GOLD FIELDS EXPLORATION PTY. LIMITED

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DRILL CORE LOG AND ASSAY DATA

HOLE NUMBER: H.P.7

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INTERVAL From	INTERVAL To	RECOVERY m	RECOVERY %	DESCRIPTION	Sample No.	From	To	Rec. %	Cu	Zn	As	Ag	Au	Pb	Bi
				314.0-363.6 INTENSELY SHEARED MYLONITES WITH ZONES OF COMPLETE SHATTERING. STRONGLY SERICITIC.											
314.0	329.7	15.7	100	Soft, highly sheared sericitic fine grained volcaniclastics. Strongly altered, pervasively to sericitic. Very fissile at 45°CA and strongly fractured. Pale green-pink-brown in colour, with several clayey zones developed.											
329.7	356.0	25.0	95	Highly sheared and foliated very fine grained pale grey epiclastics and with numerous thin clay bands developed along cleaved surfaces. The core is softish and fractured with small (0.1m wide) completely crushed zones also occurring. Fractured quartz veins are present. The rock is strongly altered - to pale green sericite, with numerous surface coatings of bright green batchelorite also. The foliation is 25-50°CA.											
356.0	363.6	6.9	91	Crushed zone. Unconsolidated rock fragments (up to small cobble size) in an unsorted rock flow/clay matrix. The fragments											
356.0-358.0,		1.3m recovered)		are nearly all pale grey epiclastics (both sericitic and silicified). This unit is massive and structureless, i.e. unfoliated. Above 360.0, small (0.2m wide) sections of the unit described											
				previously are included in this crushed zone. Batchelorite	T1194	362.0	363.0	91	60	160	13	<0.5	0.082	80	<1
				and pale greensericite are well developed as streaks through	T1195	363.0	364.0	95	150	390	71	1.0	0.367	625	<1
				these sections. Overall the original rock in this zone was very strongly altered to sericite and quartz sericite assemblages. Also rare purple fluorite occurs at 360.0.											
				Below 362.9, the last 0.7m of this crush zone contains clasts which are finely pyritic and small pyrite crystals are quite common in the clayey matrix. This phenomenon increases with depth to the footwall edge of the zone, which is strongly sulphidic. An abrupt and irregular contact occurs with the unit below.											
				363.6-424.0 MINERALISED ZONE. VOLCANICLASTIC BRECCIAS, STRONGLY ALTERED, SILICIFIED AND SULPHIDIC.											

GOLD FIELDS EXPLORATION PTY. LIMITED

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PROJECT: TYNDALL

DRILL CORE LOG AND ASSAY DATA

HOLE NUMBER: H.P.7

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INTERVAL		RECOVERY		DESCRIPTION	ASSAY DATA (in p.p.m.)													
From	To	m	%		Sample No.	From	To	Rec. %	Cu	Zn	As	Ag	Au	Pb	Bi			
363.6	383.2	19.6	100	Pale-medium grey coarse breccia consisting of coarse angular	T1196	364.0	365.0	100	30	20	60	0.5	1.830	140	<1			
				highly siliceous fragments in a fine grained quartz-sericite-	T1197	365.0	366.0	100	255	80	53	<0.5	0.300	590	<1			
				pyrite matrix. The sequence is cut by quartz veins and pale green	T1198	366.0	367.0	100	55	50	16	<0.5	0.292	630	<1			
				wispy sericitic veinlets. Clayey-puggy zones also occur, and the	T1199	367.0	368.0	100	130	250	23	1.0	0.308	1150	<1			
				core is strongly fractured in places. Overall the alteration	T1200	368.0	369.0	100	180	1550	15	<0.5	0.167	1550	<1			
				is pervasive and intense with sulphides making up 20% by volume.	T3919	369.0	370.0	100	800	95	45	2.0	0.150	1150	<1			
				The core has a weakly developed foliation at 38°CA.	T3920	370.0	371.0	100	96	1030	17	2.1	0.367	530	<1			
				At 368.0, a particularly strongly silicified zone, about 1.0m	T3921	371.0	372.0	100	175	1570	30	5.3	0.750	1200	13			
				wide, contains splashes of bronze coloured sphalerite.	T3922	372.0	373.0	100	1010	7115	180	6.7	4.170	5250	72			
				Also below this depth, some galena, sphalerite and chalcopyrite	T3923	373.0	374.0	100	2012.5	1.585%	170	8.5	1.130	8640	24			
				occurs as fine grained disseminations in the pyritic matrix	T3924	374.0	375.0	100	2597.5	8750	120	11.0	1.120	6070	56			
				2.8% by volume. Below 370.0, coarser grained aggregates of these	T3925	375.0	376.0	100	1235	3265	110	9.2	2.450	4400	14			
				base metal sulphides become more abundant.	T3926	376.0	377.0	100	1610	7350	70	6.7	0.308	3062.5	2			
				Some textural evidence for repeated brecciation can be seen below	T3927	377.0	378.0	100	5700	8490	76	6.3	0.350	5415	15			
				371.0, where large silicified clasts and zones are composed of	T3929	378.0	379.0	100	235	250	46	4.0	0.258	850	<1			
				cracked, brecciated and re-cemented silicified clasts.	T3930	379.0	380.0	100	113	74	34	3.5	0.192	675	<1			
				At 372.9, a 1.1m fractured zone occurs. The core is reduced	T3931	380.0	381.0	100	1700	165	80	8.5	0.300	775	<1			
				to blocky fragments and clays in this post mineralisation fracture.	T3932	381.0	382.0	100	2850	335	180	10.5	0.233	1150	<1			
				Below this zone the core is only very weakly fractured.	T3933	382.0	383.2	100	60	60	10	<0.5	0.032	10	<1			
				The base metal sulphide content appears to increase below 374.0,															
				up to 5% by volume, with numerous coarse grained splashes															
				of sphalerite, galena and in particular chalcopyrite. These															
				splashes also appear to beconcentrated in and around the silicified															
				portions of the core. The foliation is moderate; 40°CA at															
				376.0. The relatively base metal rich section lasts until															
				377.8, where the chalcopyrite-galena-sphalerite (although still															
				present) become less obvious. The sequence is still highly															
				pyritic with fine grained pyrite developed. Below 377.8, wispy															
				carbonate veinlets begin to appear.															
				At 380.6, the sulphide (pyrite) content increases to 25% by															
				volume down hole, and the silicified zones acquire a pink colour-															
				ation in places. Small white carbonate veinlets and carbonate															
				filled voids in the silicified zones also appear more abundant															
				than above.															
				Between 381.0 and 382.0, the core consists of two major silicified															
				zones; the first 0.2m wide, the lower one 0.3m wide, separated															

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DRILL CORE LOG AND ASSAY DATA

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INTERVAL		RECOVERY		DESCRIPTION	ASSAY DATA (in p.p.m.)													
From	To	m	%		Sample No.	From	To	Rec. %	Cu	Zn	As	Ag	Au	Pb	Bi			
				by irregular bands of massive pyrite and silica-pyrite-carbonate														
				intergrowths. Below 382.0, the core is strongly silificied														
				with pink-white colour silica overprinting the original sili ceous														
				breccia texture.														
383.2	384.5	1.3	100	A sharp top contact at 45°CA occurs with this unit which is	T3934	383.2	384.5	100	15	20	18	<0.5	0.032	5	<1			
				massive siliceous replacement/void filling of the original rock.														
				Pale-pink cryptocrystalline silica with specks of sulphides														
				scattered throughout, forms this unit. A sharp basal contact														
				at 30°CA occurs.														
384.5	387.2	2.7	100	Strongly silicified pale green-orange-pink grey rock. Original	T3935	384.5	385.8	100	10	40	22	<0.5	0.025	20	<1			
				rock type is obscured by intense silicification and quartz-	T3937	385.8	387.2	100	10	45	150	<0.5	0.017	40	<1			
				sericite alteration. Sulphides are absent or very rare in														
				this zone. Minor wispy white carbonate veinlets and veins														
				occur.														
387.2	404.0	16.8	100	Dark green-grey siliceous breccia with numerous pink silicified	T3938	387.2	388.2	100	30	135	14	<0.5	0.017	30	<1			
				zones across the sequence. Strongly altered to a quartz-sericite-	T3939	388.2	389.2	100	15	105	17	<0.5	0.067	10	<1			
				carbonate-pyrite assemblage. In places the original breccia	T3940	389.2	390.2	100	15	70	21	<0.5	0.050	<5	<1			
				texture has been affected by the foliation, which is weakly	T3941	390.2	391.2	100	15	75	22	<0.5	0.032	15	<1			
				developed at 40°CA, elongating many clasts. The sulphide	T3942	391.2	392.2	100	15	110	46	<0.5	0.025	15	<1			
				content is low, around 5% by volume. The core is unfractured	T3943	392.2	393.2	100	15	55	11	<5	0.017	5	<1			
				and veining is rare apart from thin white carbonate and dark	T3944	393.2	394.2	100	10	55	9	<0.5	<0.008	10	<1			
				green sericitic veinlets. The carbonate content appears to	T3945	394.2	395.2	100	10	90	12	<0.5	0.017	<5	<1			
				to increase slightly with depth below 395.0.	T3946	395.2	396.2	100	15	70	39	<0.5	0.017	<5	<1			
				At 403.3, the carbonate content increases strongly to inter-	T3947	396.2	397.2	100	15	50	29	<0.5	0.017	20	<1			
				growths as well as veins and replacements. Also a distinct	T3949	397.2	398.2	100	25	120	150	<0.5	0.017	15	<1			
				bright green mineral (probably batchelorite) begins to appear	T3950	398.2	399.2	100	10	110	30	<0.5	0.017	20	<1			
				in places.	T3951	399.2	400.2	100	10	40	14	<0.5	<0.008	15	<1			
				This unit grades into the one below.	T3952	400.2	401.2	100	15	170	66	<0.5	0.008	15	<1			
					T3953	401.2	402.2	100	15	115	52	<0.5	0.017	15	<1			
					T3954	402.2	403.3	100	15	80	20	<0.5	0.025	15	<1			
					T3955	403.3	404.0	100	20	185	21	<0.5	0.067	25	<1			

GOLD FIELDS EXPLORATION PTY. LIMITED

DRILL CORE LOG AND ASSAY DATA

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INTERVAL From	INTERVAL To	RECOVERY m	RECOVERY %	DESCRIPTION	Sample No.	From	To	Rec. %	Cu	Zn	As	Ag	Au	Pb	Bi
									ASSAY DATA (in p.p.m.)						
404.0	409.5	5.5	100	Medium grey, strongly sulphidic, quartz-sericite-carbonate	T3956	404.0	405.0	100	285	53	42	2.6	0.342	136	<1
				altered breccia. The original rock type is difficult to recognize	T3958	405.0	406.0	100	560	43	150	2.7	0.225	142	5
				but appears to be a breccia. Very fine grained pyrite is abundant,	T3959	406.0	407.0	100	6960	190	47	4.7	0.717	190	3
				with splashes of coarser grained pyrite and base metal sulphides,	T3960	407.0	408.0	100	3160	410	27	10.8	0.933	8700	25
				particularly chalcopyrite present. Overall sulphides make up	T3961	408.0	408.7	100	805	86	27	2.2	0.342	66	6
				15% by volume. Pale coloured quartz-carbonate zones occur -	T3962	408.7	409.5	100	615	85	15	<0.5	0.032	5	<1
				usually with associated coarse splashes of base metal sulphides.											
				Carbonate is well developed throughout this zone. Also developed											
				within the quartz-carbonate zones is the bright green mineral											
				(?batchelorite) mentioned above. The core is unfractured and											
				has a weak foliation, 45°CA at 406.0m.											
				At 407.3 a 0.2m zone of particularly strongly developed inter-											
				growth of chalcopyrite-galena-sphalerite occurs within a quartz-											
				carbonate-sericite zone.											
				At 408.7 a strong carbonate-sericite zone with weak quartz											
				and pyrite occurs, continuing down to 409.5. This zone is											
				quite contorted and veined with brown sericite and white carbonate.											
				Also the bright green mineral occurs with the sericite.											
				A sharp contact with the unit below occurs at 60°CA.											
409.5	417.5	8.0	100	A return to the unit before last. Pink-grey siliceous breccio-	T3963	409.5	410.5	100	30	100	22	<0.5	0.158	15	<1
				conglomerate with a strongly developed quartz-carbonate-sericite-	T3964	410.5	411.5	100	15	55	19	<0.5	0.032	10	<1
				pyrite alteration. The sulphide content is low, around 5% by	T3965	411.5	412.5	100	15	45	28	<0.5	0.017	15	<1
				volume. The core is unfractured and unveined. Wispy stringers	T3236	412.5	413.5	100	8	55	26	<0.1	<0.008	9	<1
				and intergrowths of carbonate are common. Pink siliceous clasts	T3237	413.5	414.5	100	13	71	25	<0.1	0.017	16	<1
				are common as are pink silicified zones.	T3238	414.5	415.5	100	12	67	63	<0.5	0.017	16	<1
				At 414.9, a small 0.5 cm lens of massive pyrite occurs.	T3239	415.5	416.5	100	10	47	16	<0.5	0.008	16	<1
					T3240	416.5	417.5	100	27	47	35	0.5	0.017	32	<1
417.5	424.0	6.5	100	Volcanic breccio-conglomerates consisting of large angular	T3241	417.5	418.5	100	17	65	28	<0.5	0.017	22	<1
				and sub-rounded clats and grit of siliceous volcanics in a	T3242	418.5	419.5	100	11	71	20	<0.1	0.017	14	<1
				fine grained matrix - a similar lithology to all the post-fault	T3243	419.5	420.5	100	14	49	34	<0.1	0.017	21	<1
				lithologies described previously. Altered strongly to a silica-	T3244	420.5	421.5	100	10	55	25	<0.1	0.017	11	<1
				carbonate assemblage, with minor sericite and pyrite. The	T3245	421.5	422.5	100	10	46	22	0.3	0.025	20	<1
				sulphide content is low, 2-1% by volume, but increases to 5%	T3246	422.5	423.5	100	12	105	22	0.2	0.050	21	<1
				with depth. Moderately well foliated at 45°CA, with zones	T3247	423.5	424.5	100	17	79	14	0.3	0.050	21	<1
				of pink silicification developed. Unfractured.											

GOLD FIELDS EXPLORATION PTY. LIMITED

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DRILL CORE LOG AND ASSAY DATA

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HOLE NUMBER: H.P.7

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INTERVAL From	INTERVAL To	RECOVERY m	RECOVERY %	DESCRIPTION	Sample No.	From	To	Rec. %	ASSAY DATA (in p.p.m.) Cu	Zn	As	Ag	Au	Pb	Bi
				The contact with the unit below is sharp at 60°CA and a 1.0 cm											
				zone of strong pyrite also occurs on this contact.											
				424.0-497.5 STRONGLY SILICIFIED, GRITTY VOLCANICLASTIC BRECCIA.											
				WEAKLY ALTERED AND POORLY SULPHIDIC.											
424.0	443.1	19.1	100	This unit is distinguished by massive silica flooding. Crypto-	T3248	424.5	425.5	100	30	32	4	0.2	<0.008	8	<1
				crystalline silica occurs pervasively throughout the rock,	T3250	425.5	426.5	100	380	20	51	0.2	<0.008	7	<1
				with minor pale green sericite and sulphides up to 1% by volume	T3251	426.5	427.5	100	161	25	9	0.3	<0.008	5	<1
				scattered throughout as weakly developed disseminations. Minor	T3252	427.5	428.5	100	275	26	5	0.3	<0.008	5	<1
				hematite and chlorite occur as alteration minerals in places	T3253	428.5	429.5	100	255	33	7	0.2	<0.008	3	<1
				also. The original rock type was some form of breccia-conglomerate	T3254	429.5	430.5	100	300	29	4	0.1	<0.008	5	<1
				as the previous units have been, although the silicification	T3255	430.5	431.5	100	430	39	4	0.1	<0.008	6	<1
				obscures most of the primary lithologies and textures. The	T3256	431.5	432.5	100	370	19	3	0.3	<0.008	9	<1
				core is unfractured except for a few thin crumbly zones. Some	T3257	432.5	433.5	100	48	19	3	0.2	<0.008	9	<1
				of the sulphides are chalcopyrite (coarser grained), most is	T3258	433.5	434.5	100	320	16	6	0.3	<0.008	6	<1
				pyrite. Rare veinlets and veins of quartz and quartz-feldspar	T3259	434.5	435.5	100	460	26	6	0.2	0.008	13	<1
				coarse intergrowths are also present. Apart from the silicifica-	T3260	435.5	436.5	100	260	33	7	0.1	0.017	16	<1
				tion, the rock does not appear to be strongly altered.	T3262	436.5	437.5	100	240	25	71	0.3	0.017	10	<1
				Between 432.5 and 433.5, green chlorite/sericite is quite well	T3282	437.5	438.5	100	20	50	10	<0.5	0.017	10	<1
				developed as interstitial fillings to the silicification.	T3283	438.5	439.5	100	160	75	3	<0.5	0.008	5	<1
				Below 435.5, zones up to 0.5m thick of dark grey, moderately	T3284	439.5	440.5	100	315	30	4	<0.5	<0.008	5	<1
				to strongly silicified very fine grained rock occur. These often	T3285	440.5	441.5	100	135	40	3	<0.5	<0.008	5	<1
				also contain distinct euhedral feldspar phenocrysts up to 0.5 cm	T3286	441.5	442.5	100	140	35	4	<0.5	0.017	5	<1
				across. The appear to be pseudomorphed by quartz and other	T3287	442.5	443.5	100	750	40	4	<0.5	<0.008	5	<1
				alteration phases.											
				At 439.9 and 440.7, 40 and 20 cm quartz-feldspar veins occur.											
				At 441.5, the core is strongly sericitic with pale green-grey											
				sericite veinlets and pervasive intergrowths with silica causing											
				the core to become more fractured. At 442.3, a 0.4m moderately											
				fractured zone occurs, producing weakly clayey and crumbly											
				rock. The sericitic zone ends at 443.1m.											
443.1	454.7	11.6	100	Intensely silicified gritty volcaniclastics. Pale grey with	T3288	443.5	444.5	100	650	15	1	<0.5	<0.008	<1	<1
				the silicification masking primary textures. Silica is developed	T3289	444.5	445.5	100	260	20	1	<0.5	<0.008	<1	10
				as an all-pervasive flooding with only minor vein/veinlet develop-	T3291	445.5	446.5	100	345	25	1	<0.5	<0.008	<1	<1

015089

GOLD FIELDS EXPLORATION PTY. LIMITED

PROJECT: TYNDALL

DRILL CORE LOG AND ASSAY DATA

HOLE NUMBER: H.P.7

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INTERVAL From	INTERVAL To	RECOVERY m	RECOVERY %	DESCRIPTION
				ment. Sericite occurs as wispy veinlets and fracture fillings.
				Small sulphide grains (pyrite and chalcopyrite) occur as accessory
				phases. The core is only very weakly fractured and apperas
				massive due to the alteration. Overall sulphides are >1%.
				Unfoliated.
454.7	482.0	27.3	100	Strongly silicified coarse volcaniclastic breccia. The silicifi-
				cation is less intense than the previous unit, and decreases
				with depth, being absent below 456.0. The rock is dark green/
				grey with pink patches, the latter representing clasts within
				the fine grained matrix. The unit is foliated at 33°CA, is
				weakly altered (to sericite) and has a low (1%) disseminated
				sulphide content. The core is moderately fractured. Minor
				calcite occurs.
				Between 459.5 and 462.5, a number of metamorphic veins cut
				the rock, which is strongly fractured in places. These veins
				often carry coarse chalcopyrite.
				At 463.3, a red-pink colour (hematite in silica) pervades the
				rock. This ends at 467.8.
				This unit becomes increasingly more altered with depth over
				the lower 1.5m, at 480.5, as chlorite and pyrite become abundant.
				The core is strongly fractured between 481.7 and 482.7.
482.0	497.5	15.5	100	Strongly to intensely silicified gritty volcaniclastics and
				breccias. Silica is developed as a pervasive flooding in patches
				throughout this unit. Chloritic-matrix material remains relatively
				unsilicified but relatively sulphide rich (up to 1% in places).
				Metamorphic veins cut the sequence which is unfractured and
				unfoliated.
				END OF HOLE 497.5m.

ASSAY DATA (in p.p.m.)

Sample No.	From	To	Rec. %	Cu	Zn	As	Ag	Au	Pb	Bi
T3292	446.5	447.5	100	500	10	2	<0.5	<0.008	<1	<1
T3293	447.5	448.5	100	645	25	2	<0.5	<0.008	<1	<1
T3294	448.5	449.5	100	130	25	1	<0.5	<0.008	5	<1
T3295	449.5	450.5	100	85	45	3	<0.5	<0.008	<1	<1
T3296	450.5	451.5	100	15	45	2	<0.5	<0.008	5	<1
T3297	451.5	452.5	100	5	50	1	<0.5	<0.008	5	<1
T3298	452.5	453.5	100	<1	25	1	<0.5	<0.008	<1	10
T3299	453.5	454.5	100	10	35	<1	<0.5	<0.008	<1	<1
T3300	454.5	455.5	100	10	30	3	<0.5	0.008	10	<1
T278	455.5	456.5	100	105	85	6	<0.5	0.032	15	20
T279	456.5	457.5	100	55	100	8	0.5	0.067	40	<1
T280	457.5	458.5	100	30	45	7	<0.5	0.067	25	10
T281	458.5	459.5	100	95	105	9	1.0	0.075	135	<1
T282	459.5	460.5	100	1275	60	4	18	0.082	2000	30
T283	460.5	461.5	100	160	230	6	0.5	0.040	225	<1
T284	461.5	462.5	100	20	90	10	0.5	0.050	120	<1
T285	462.5	463.5	100	10	105	10	<0.5	0.017	40	<1

089

015090

GOLD FIELDS EXPLORATION PTY. LIMITED
DRILL CORE RECORD

HOLE NO. : H.P.8
STATE : TASMANIA

PROJECT	TYNDALL
DESIGNED BY	C. PEASE/P. ROBERTS
LOGGED BY	A. CARTWRIGHT
COMMENCED	14.4.1986
COMPLETED	1.5.1986

PURPOSE

To test for a shallow extension of the mineralisation encountered in H.P.4.

LOG SUMMARY / GENERAL COMMENTS

A narrow mineralised zone (18.3m) between 99.2m and 117.5m was encountered in this hole. Zone A has been affected by the Henty Fault, in which it occurs. Zone B is only very weakly developed and both zones are thin. Assays are given below.

ASSAY SUMMARY

INTERVAL From	INTERVAL To	Width	Au	Ag	Cu	Pb	Zn	Bi	As	- all p.p.m.				COMMENTS
103.2	106.2	3.0m	0.94	13.7	1140	1218	993	19	188					Zone A
116.7	117.5	0.8m	0.10	0.5	960	140	200	<1	15					Zone B

LOCATION

NORTHING	5,364,164
EASTING	380,091
R.L.	590.8
GRID	A.M.G.
LENGTH	197.4

HOLE CONDITION

SIZE Hole Size	SIZE Depth
HQ	0.0-165.0
NQ	165.0-197.4

SIGNIFICANT CORE LOSS INTERVALS From	To	% Lost
91.9	97.5	96

POOR GROUND CONDITION ZONES From	To	Condition
0.0	17.0	Weathered zone
17.0 and 171.4	91.9 and 194.7	Many zones of strong fracturing & clay development occur throughout these intervals.
91.9	106.8	Henty Fault Zone. Sheared mylonitic with a strong shattered zone on the hanging wall.

HOLE CONDITIONS AFTER COMPLETION

Hole open. All casing has been removed except for a short length of HW at the collar, left to keep the top of the hole open.

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

SURVEY Depth	SURVEY Bearing	SURVEY Dip	INTERVAL From	INTERVAL To	INTERVAL Distance	VERTICAL D.Sin.Dip	VERTICAL R.L.	HORIZONTAL D.Cos.Dip	HORIZONTAL Prog.Total
0.0	095	45.0	0.0	20.0	20.0	14.1	576.7	14.1	14.1
40.0	096	45.0	20.0	59.5	39.5	27.9	548.8	27.9	42.0
79.0	097	43.0	59.5	98.5	39.0	26.6	522.2	28.5	70.5
118.0	096	42.0	98.5	137.5	39.0	26.1	496.1	29.0	99.5
57.0	097	41.0	137.5	177.0	39.5	25.9	470.2	29.8	129.3
97.0	096	40.0	177.0	197.4	20.4	13.1	457.1	15.6	144.9

SURVEY Depth	SURVEY Bearing	SURVEY Dip	INTERVAL From	INTERVAL To	INTERVAL Distance	VERTICAL D.Sin.Dip	VERTICAL R.L.	HORIZONTAL D.Cos.Dip	HORIZONTAL Prog.Total

PROJECT: TYNDALL HOLE NO: HP 8

GOLD FIELDS EXPLORATION PTY. LIMITED

DRILL HOLE PLOT

SCALE 1:1000 20 10 0 10 20 30 40 METRES

5 cm

5 364 164mN
380 091mE

HP 8

590·8m R.L.

PLAN VIEW

DIP PROFILE

Limit of ox.

LITHIC VOLCANICLASTICS CUT BY THIN MAFIC DYKES
silic., alb., chl., ser. and carb.

HENTY FAULT

ROCK TYPE CHANGE

MYLONITE
ser., sheared and py.

SULPHIDIC VOLCANICLASTICS
silic., ser. and py.

STRONGLY FRACTURED
increased ser.

SHATTERED ZONE

1-5% py

15-20% py
(+ cp, gn, sl)

1-5% py

10 % py
(+ cp, gn, sl)

VOLCANICLASTIC BRECCIAS AND EPICLASTICS
silic., chl., ser. and carb.

E.O.H. 197·4m

527·1m R.L. (Fault H.W.)

519·2m R.L. (Zone A)

517·8m R.L. (Fault F.W.)

512·2m R.L. (Zone B)

ZONE A
105·2m - 106·2m
3·0m @ 0·94 g/t Au
13·7 g/t Ag
0·11 % Cu
0·12 % Pb
0·10 % Zn

ZONE B
116·7m - 117·5m
0·8m @ 0·10 g/t Au
0·5 g/t Ag
0·10 % Cu

STATE: TAS.

HOLE NO: HP 8

015092

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GOLD FIELDS EXPLORATION PTY. LIMITED

ULV. PRESS

PROJECT: TYNDALL

DRILL CORE LOG AND ASSAY DATA

HOLE NUMBER: H.P.8

Page: 1

INTERVAL From	INTERVAL To	RECOVERY m	RECOVERY %	DESCRIPTION
				SUMMARISED LOG
0.0	91.9			PINK-GREEN VOLCANICLASTICS WITH MINOR MAFIC DYKES. UNALTERED AT SURFACE, INCREASING TO MODERATE SERICITE-CARBONATE ALTERATION AT DEPTH. STRONGLY FRACTURED IN PLACES.
91.9	106.8			HENTY FAULT. HIGHLY SHEARED, SERICITIC, MYLONITIC CLAY-ROCK. AN EXTENSIVE SHATTER ZONE OF UNCONSOLIDATED SAND, ROCK AND CLAY OCCURS ON THE HANGING WALL. A STRONGLY SULPHIDIC SEQUENCE, CONTINUOUS WITH THE UNIT BELOW, OCCURS ON THE FOOTWALL.
106.8	119.5			SILICIFIED, SULPHIDIC VOLCANICLASTICS. FINE GRAINED AND ALTERED TO A SERICITE-SILICA-SULPHIDE ASSEMBLAGE. MODERATELY FOLIATED AND VEINED.
119.5	197.4			PINK-GREEN VOLCANICLASTIC BRECCIAS AND DARK GREEN EPICLASTICS VARIABLY SILICIFIED AND CHLORITIC, BUT OVERALL WEAKLY ALTERED AND POORLY SULPHIDIC. STRONGLY FRACTURED IN PLACES.
				DETAILED LOG
				0.0-91.9 PINK-GREEN FELSIC VOLCANICLASTICS WITH MAFIC DYKES. WEAKLY ALTERED.
0.0	17.0	15.2	89	Moderately weathered and highly fractured, pale green-pink gritty volcaniclastics containing white fragments (grit sized) in a very fine grained siliceous matrix. This sequence is cut by thin (up to 0.5m wide) mafic dykes - chloritic and fine grained.
(0.0-6.0, 4.2m recovered)				
17.0	91.3	73.3	99	Pink-green felsic volcaniclastics with coarse bands of hard, siliceous, very fine grained pink volcaniclastics and medium grained chloritic volcaniclastics. Weakly fractured and foliated. Unaltered with metamorphic quartz veins commonly developed. The chloritic bands contain numerous pink-white grit-sized

ASSAY DATA (in p.p.m.)

Sample No.	From	To	Rec. %	Cu	Zn	As	Ag	Au	Pb	Bi

GOLD FIELDS EXPLORATION PTY. LIMITED

ULV. PRESS PROJECT: TYNDALL

DRILL CORE LOG AND ASSAY DATA

HOLE NUMBER: H.P.8 Page: 2

INTERVAL From	INTERVAL To	RECOVERY m	RECOVERY %	DESCRIPTION	ASSAY DATA (in p.p.m.) Sample No.	From	To	Rec. %	Cu	Zn	As	Ag	Au	Pb	Bi
				chips/crystals. Small (0.3m wide) fractured zones produce crumbly and blocky core in many places throughout the unit. Limonite commonly occurs as a fracture coating. Between 28.6 and 30.7, a dark green, fine grained mafic dyke occurs. It is strongly chloritic, clayey and fractured. Where the core is fractured, sericite is usually well developed also, as veinlets and within fractures. Several thin (0.2m) mafic dykes occur below 31.0, until 39.5, where a 2.9m thick mafic dyke occurs. This dyke contains many wispy carbonate veins and has irregular and veined contacts. Another 1.0m thick dyke occurs at 44.6m. In places the pink siliceous-felsic sections of core become more hematitic and are a bright red colour. Between 65.0 and 68.2 the core is strongly fractured and weakly sericitic. Below this zone the rock remains weakly sericitic and weakly foliated at 60°CA. Wispy white carbonate veins are also common. Below 82.5, the core becomes increasingly sericitic - with very thin, fine wispy, sub-parallel (to foliation) sericite veinlets developed. Also the core is overall more fractured. In general, alteration increased to a moderate sericite-carbonate assemblage below 82.5.											
91.3	91.9	0.6	100	Green, fissile, highly fractured and sheared volcaniclastic. Some clayey-puggy zones developed. Typical green-pink colouration occurs.											
				91.9-106.8 FAULT ZONE. STRONGLY SHEARED AND SHATTERED SERICITIC MYLONITE WITH A STRONGLY DEVELOPED SULPHIDE ZONE.											
91.9	97.5	0.2	4	A zone consisting of small, hard, loose, pebble-sized green-pink volcaniclastic fragments. Considerable core loss has occurred, probably washing the unconsolidated sands and grits out of this highly disrupted zone. This unit has sharp contacts above and											

GOLD FIELDS EXPLORATION PTY. LIMITED

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PROJECT: TYNDALL

DRILL CORE LOG AND ASSAY DATA

HOLE NUMBER: H.P.8 Page: 3

INTERVAL From	INTERVAL To	RECOVERY m	RECOVERY %	DESCRIPTION	Sample No.	From	To	Rec. %	Au	Ag	Cu	Pb	Zn	Bi				
									ASSAY DATA (in p.p.m.)									
97.5	103.2	5.7	100	Highly fractured and sheared, pale green clayey volcaniclastic-														
				mylonite zone. The tectonic fabric is often obliterated in														
				places producing a clay cemented grit. In general the unit														
				consists of small, hard, angular fragments in a foliated clay														
				matrix.														
				At 99.2, the clay becomes (suddenly) sulphidic. Also small	T3263	99.2	100.2	100	0.008	0.5	30	1300	1950	<1	13			
				zones of harder, more competent siliceous material occur.	4		101.2	"	<0.008	"	5	1350	405	4	10			
				At 100.5, bright green batchelorite-fuchsite occurs in the	5		102.2	"	"	"	"	10	45	<1	5			
				clays also. The sulphides are rare below 100.5, overall being	T3266	102.2	103.2	"	"	<0.5	"	"	40	"	10			
				1 5%.														
03.2	106.8	3.6	100	A gradual contact from the abvoe sequence into a strongly														
				sulphidic (base metal sulphides also) sequence occurs at														
				103.2. The core is still highly mylonitic as above, except														
				the hard clasts are sulphidic and silicified, and the matrix	T3267	103.2	104.2	100	0.358	6.5	135	210	120	2	48			
				is a black-grey strongly sulphidic clay. Bands of very fine	8		105.2	"	0.292	9.5	335	135	60	12	76			
				grained semi-massive sulphides (up to 10 cm thick) occur at	9		106.2	"	2.170	25.0	2950	3250	2800	42	440			
				105.3, 105.9, 106.3 and 106.8. Overall the sulphide content	T3270	106.2	106.8	"	0.117	1.5	390	1100	1350	<1	68			
				is 15-20%.														
				Below 104.0, the core is less soft, still retaining a mylonitic														
				fabric but appearing more strongly cemented.														
				At 106.8 a thin 1.0 cm sulphidic clay band occurs at 75°CA.														
				This sharply marks the contact with the unit below.														
				106.8-119.5 SILICIFIED VOLCANICLASTIC BRECCIAS. STRONGLY														
				ALTERED AND STRONGLY SULPHIDIC.														
106.8	113.7	6.9	100	Pale green-grey silicified fine grained volcaniclastics.														
				Strongly altered and silicified with sericitic veins and inter-	T3271	106.8	107.8	100	0.017	<0.5	20	20	45	<1	20			
				growths. The core is moderately to strongly fractured and	2		108.8	"	"	"	10	15	55	"	17			
				is weakly sulphidic - up to 5%. Small zones of quartz stock-	3		109.8	"	0.008	"	"	10	65	"	12			
				working cut the core in patches. Clayey zones are also present,	4		110.8	"	<0.008	"	"	30	110	"	16			
				producing crumbly, highly fractured patches. The sulphide	5		111.8	"	"	"	"	20	20	"	14			
				content begins to increase with depth below 112.6. This unit	T3277	111.8	112.8	"	0.017	"	"	25	185	"	9			
				is only weakly foliated at 55°CA.														

GOLD FIELDS EXPLORATION PTY. LIMITED

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094

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PROJECT: TYNDALL

DRILL CORE LOG AND ASSAY DATA

HOLE NUMBER: H.P.8 Page: 4

INTERVAL From	INTERVAL To	RECOVERY m	RECOVERY %	DESCRIPTION	ASSAY DATA (in p.p.m.) Sample No.	From	To	Rec. %	A_u	Ag	Cu	Pb	Zn	Bi	As
113.7	119.5	5.8	100	Pale green-medium grey volcaniclastics. Silicified lenses	T3278	112·8	113·7	100	0·075	<0·5	85	760	285	<1	7
				and pods within a sericitic matrix as in the previous unit,	9		114·7	"	0·058	"	25	200	200	"	14
				but far less clay altered, unfractured and more sulphidic.	0		115·7	"	0·082	"	55	185	320	4	11
				Sulphides have increased to around 10%, the foliation is more	T3281	115·7	116·7	"	0·040	"	30	15	170	<1	11
				prominent at 45°CA and clay-fractured zones are rare. Stringers											
				of chalcopyrite occur at 117.0, and base metals sulphides											
				in general occur as fine grained disseminations throughout											
				the unit. Small quartz veins and veinlets occur in the more											
				siliceous bands and lenses.	T287	116·7	117·5	100	0·100	0·5	960	140	200	<1	15
				Between 117.5 and 119.5, the rock is intensely silicified,	8		118·5	"	0·017	<0·5	10	25	45	"	2
				with very little sulphides and thin sericitic fractures.	9		119·5	"	0·017	"	"	20	85	"	5
					T290	119·5	120·5	"	0·025	"	"	30	75	"	5
				119.5-197.4 *VOLCANICLASTIC BRECCIAS AND EPICLASTICS. WEAKLY ALTERED.*											
119.5	150.0	30.5	100	*Pink-greenish* grey variable silicified gritty conglomerate/											
				breccia. This unit is strongly silicified in patches, particu-											
				larly close to the upper contact, and contains numerous wispy,											
				brown sericite veinlets. The coarser breccio-conglomeratic											
				sections are red-pink with large quartz and lithic fragments.											
				The unit is weakly fractured and foliated (at 45°CA) with											
				rare, coarse pyritic grains. Overall, only weakly altered.											
				The sequence alternates between the more sericitic/chloritic											
				fine/coarse sand sized rocks and the coarser pebble breccio-											
				conglomerates. The unit is relatively un-veined.											
				At 133.2, a 0.2m thick zone of sericitisation/fracturing occurs.											
				At 139.0, the conglomerate becomes very coarse over 0.5m with											
				fragments up to 5 cm across. These are all elongate, with											
				the foliation at 45°CA. The clasts are pink-purple-green											
				rock fragments.											
				Below this zone, the rock is all conglomerate, i.e. no sandy-											
				silty units.											
				At 146.5, the coarse sandstones appear again. Below this depth											
				the rock is slightly more sericitic, with increased fracturing											
				surrounding a 30 cm thick quartz (metamorphic) vein at 148.5.											

GOLD FIELDS EXPLORATION PTY. LIMITED

015096

095

DLV. PRESS

PROJECT: TYNDALL

DRILL CORE LOG AND ASSAY DATA

HOLE NUMBER: H.P.8 Page: 5

INTERVAL From	INTERVAL To	RECOVERY m	RECOVERY %	DESCRIPTION
150.0	171.4	21.4	100	A sharp contact with above unit down into that below occurs at 53°CA. Pale brown-greenish grey very fine grained sediments/ epiclastics. Numerous dark green, chloritic veins and thin brecciated zones occur irregularly throughout this sequence. Thin, pale brown, wispy sericitic veinlets are common also. The rock is very weakly altered overall, and is only weakly fractured. Foliation is moderately developed at 45°CA. The alteration is primarily chloritic with minor sericite, quartz and carbonate, the latter as small irregular veinlets. Sulphides are very rare in this unit. The rock has a brecciated appearance due to the well developed chlorite intergrowths. Between 166.7 and 169.9, the core is strongly fractured, slightly more sericitic and is cut by a few quartz veins. At 169.6, a 0.6m zone of silicification occurs. This is a complex zone of network quartz veining and silica flooding, obscuring original rock textures. This is underlain by 1.2m of coarse breccia; green-pink coloured rock consisting of pink siliceous angular, unsorted fragments in a dark green fine grained matrix. This unit grades into the one below.
171.4	194.7	22.0	94	Pale grey, very fine grained siliceous rock which is cut/brecciated by chlorite (dark green) veins and by intergrowths. This unit also contains wispy chloritic fragments and numerous grit-sized pink siliceous chips. Sulphides are very rare and the alteration assemblage is a weak chlorite-quartz-sericite. The core is moderately fractured and zones of strong fracturing/ sericite development occur commonly. Large siliceous clasts occur also. Rare metamorphic quartz veins also occur. Between 184.0 and 189.0, the core is particularly strongly fractured and sericitic.
84.6-187.9 (2.0m recovered)				
				END OF HOLE 194.7m

ASSAY DATA (in p.p.m.) Sample No.	From	To	Rec. %	Cu	Zn	As	Ag	Au	Pb	Bi

096

015097

HOLE NO.: HP.9
STATE : TASMANIA

GOLD FIELDS EXPLORATION PTY. LIMITED
DRILL CORE RECORD

PROJECT	TYNDALL
DESIGNED BY	A. CARTWRIGHT/C. [illegible]EASE
LOGGED BY	A.J. CARTWRIGHT
COMMENCED	2.5.86
COMPLETED	15.5.86

PURPOSE

To test for a shallow, higher grade extension of the mineralisation encountered in HP.6.

LOG SUMMARY / GENERAL COMMENTS

The Henty Fault was intersected at 106.4m. A strongly mineralised zone occurs between 113.4m and 135.5m - significant assays are recorded below.

ASSAY SUMMARY

INTERVAL From	INTERVAL To	Width	Au	Ag	Cu	Pb	Zn	As	Bi	- all p.p.m.				COMMENTS
116.0	118.0	2.0m	0.13	10.5	48	105	18	28	25					
127.0	135.5	8.5m	6.4	31.0	0.16%	0.54%	0.48%	70	103					
Including														
128.0	131.0	3.0m	17.6	67.7	0.22%	0.68%	280	32	267					

LOCATION

NORTHING	5,364,263
EASTING	380,135
R.L.	611.5
GRID	AMG
LENGTH	190.0m

HOLE CONDITION

SIZE Hole Size	SIZE Depth
HQ	0-190.0

SIGNIFICANT CORE LOSS INTERVALS From	To	% Lost
106.4	113.4	16

POOR GROUND CONDITION ZONES From	To	Condition
106.4	113.4	Henty Fault. Semi consolidated rock fragments and clay.

HOLE CONDITIONS AFTER COMPLETION

All rods and casing removed from hole which is open. A short length of HW has been left in the hole collar to keep it clear.

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

SURVEY Depth	SURVEY Bearing	SURVEY Dip	INTERVAL From	INTERVAL To	INTERVAL Distance	VERTICAL D.Sin.Dip	VERTICAL R.L.	HORIZONTAL D.Cos.Dip	HORIZONTAL Prog.Total
0.0	056	57.0	0.0	19.5	19.5	16.4	595.1	10.6	10.6
39.0	057	57.0	19.5	63.5	44.0	36.9	558.2	24.0	34.6
88.0	058	57.0	63.5	107.5	44.0	36.9	521.3	24.0	58.6
127.0	058	57.0	107.5	146.5	39.0	32.7	488.6	21.2	79.8
166.0	061	58.0	146.5	178.0	31.5	26.7	461.9	16.7	96.5
190.0	062	58.0	178.0	190.0	12.0	10.2	451.7	6.4	102.9

SURVEY Depth	SURVEY Bearing	SURVEY Dip	INTERVAL From	INTERVAL To	INTERVAL Distance	VERTICAL D.Sin.Dip	VERTICAL R.L.	HORIZONTAL D.Cos.Dip	HORIZONTAL Prog.Total

PROJECT: TYNDALL HOLE NO: HP 9

GOLD FIELDS EXPLORATION PTY. LIMITED

DRILL HOLE PLOT

SCALE 1:1000 20 10 0 10 20 30 40 METRES

5 cm

PLAN VIEW

5 364 263mN
380 135mE

DIP PROFILE

511·5m R.L.

HP 9

LITHIC VOLCANICLASTICS
CUT BY THIN MAFIC DYKES
silic., alb., chl. and ser.

Limit of ox.

HENTY FAULT
ser., py., sheared.

STRONGLY FRACTURED increased ser.

SULPHIDIC VOLCANICLASTICS
silic., ser. and py.

VOLCANICLASTIC BRECCIAS WITH MINOR LAVAS AND PYROCLASTICS
silic., ser. and chl.

5-10 % py

5% py

5 %
(+ cp, gn, sl)

15 - 20 %
(+ py, cp, gn, sl)

1-5 % py

E.O.H. 190·0 m

522·3m R.L. (Fault H.W.)

516·0m R.L. (Fault F.W.)

504·0m R.L. (Mineralized Zone H.W.)

501·0m R.L. (Mineralized Zone F.W.)

MINERALIZED ZONE
127·0m - 135·5m
8·5m @ 6·40 g/t Au
31·0 g/t Ag
0·16 % Cu
0·64 % Pb
0·48 % Zn

380 200mE 5 364 100mN

STATE: TAS.

HOLE NO: HP 9

015099

GOLD FIELDS EXPLORATION PTY. LIMITED

DLY. PRESS

PROJECT: TYNDALL

DRILL CORE LOG AND ASSAY DATA

HOLE NUMBER: HP.9

Page: 1

INTERVAL From	INTERVAL To	RECOVERY m	RECOVERY %	DESCRIPTION
				SUMMARISED LOG
0.0	106.4			FELSIC VOLCANICLASTICS CUT BY NUMEROUS, THIN MAFIC DYKES STRONGLY
				WEATHERED TO DEPTH AND INTENSELY FRACTURED NEAR THE FAULT.
106.4	113.4			HENTY FAULT. SEMI-CONSOLIDATED CLAYS AND SERICITIC ROCK FRAG-
				MENTS IN A CRUSH ZONE. NO MYLONITE IS DEVELOPED.
113.4	135.5			STRONGLY MINERALISED, SULPHIDIC VOLCANICLASTIC BRECCIAS.
				SILICIFIED, SERICITIC ANDN OVERALL STRONGLY ALTERED.
135.5	190.0			COARSE VOLCANICLASTIC BRECCIAS WITH MINOR FELSIC LAVAS AND
				FINE GRAINED PYROCLASTICS. WEAKLY ALTERED WITH SMALL PYRITIC
				AND SILICIFIED ZONES DEVELOPED.
				DETAILED LOG
				0.0 - 106.4 FELSIC VOLCANICLASTICS, WEAKLY ALTERED, STRONGLY
				WEATHERED AND HIGHLY FRACTURED.
0.0	2.0			Tricone, no core recovered.
2.0	35.7	32.8	97	Brown-grey, bleached and weathered felsic volcaniclastics.
				Strongly fractured with dark brown limonitic coatings. Original
				rock is a coarse volcaniclastic - with elongate felsic volcanic
				clasts. Narrow mafic dykes occur; these are completely weathered
				to softish, deep brown limonite clay-rock. Numerous crush-
(16.0-17.2,		0.7m recovered)		shatter zones consisting of soft pale grey clay, occur also.
				Between 17.2 and 20.7, a strongly weathered, dark brown, limonitic
				mafic dyke.
				Broken and fractured metamorphic quartz veins, vuggy and leached,
(22.3-24.5,		1.8m recovered)		cut the sequence.
				Below 25.5, the core is slightly less fractured but still
				limonitic.

ASSAY DATA Sample No.	From	To	Rec. %

GOLD FIELDS EXPLORATION PTY. LIMITED

DEV TYNDALL PROJECT: TYNDALL

DRILL CORE LOG AND ASSAY DATA

HOLE NUMBER: HP.9 Page: 2

INTERVAL From	INTERVAL To	RECOVERY m	RECOVERY %	DESCRIPTION
35.7	73.8	37.1	97	Moderately weathered, fractured, felsic volcaniclastics.
				Similar to the unit above except less weathered. The rock
				is also bleached and contains numerous clayey, fractured zones.
43.2	46.3,	2.1m recovered		Between 40.7 and 47.2, the core is particularly fractured.
				The rock is altered to a quartz-albite-chlorite-sericite assem-
				blage. Overall only very weakly altered (metamorphism).
				Below 68.0, the rock is weakly fractured and limonite is res-
				tricted to coating fractures.
73.8	79.1	4.6	87	Unweathered felsic volcaniclastics. Green-pink in colour
				and altered/metamorphosed to chlorite-quartz-albite-sericite.
				The unit consists of a fine grained pyroclastic sequence con-
				taining lithic and crystal fragments - grit sized.
78.2	81.4,	1.1m recovered		At 74.5, the core is strongly fractured, down to 79.1.
79.1	97.9	14.8	79	A small (10 cm) pug zone occurs on the upper contact, then a
				strongly sheared, sericitic volcaniclastic sequence occurs.
				The color is pink-green and the rock is very foliated and
				fractured. Mafic dykes (dark green) are still observable
				in this unit although they are also highly sheared and sericitic.
				The cleavage is crenulated and kink-banded in may places through-
				out this sequence. Generally the core is foliated at 37° CA.
				Also many fractured, clayey zones occur.
97.9	106.4	7.3	86	Intensely shattered pink felsic volcaniclastics cut by numerous
				green mafic dykes. Irregular carbonate veins occur in both
(97.9	102.6,	3.5m recovered)		rock types and overall the unit is strongly sericitic. The
				fracturing increases to completed sheared and shattered zones
				in several places. The shearing is at 30° CA, and kink banding
				is commonly developed.

ASSAY DATA Sample No.	From	To	Rec. %

015101

GOLD FIELDS EXPLORATION PTY. LIMITED

DRILL CORE LOG AND ASSAY DATA

PROJECT: TYNDALL HOLE NUMBER: HP.9 Page: 3

INTERVAL From	INTERVAL To	RECOVERY m	RECOVERY %	DESCRIPTION	Sample No.	From	To	Rec. %	Au (FA)	Ag	As	Cu	Pb	Zn	Bi
				106.4 - 113.4 HENTY FAULT. SEMI-CONSOLIDATED CLAYS AND ROCK FRAGMENTS. SERICITIC.											
106.4	113.4	5.9	84	Completed sericitised and fractured rock-producing semi-consolidated clays. Pale green-grey and structureless with a few patches of fractured rock in an unconsolidated fault pug. Between 109.3 and 109.8, the original rock appears to have been a dark grey shale unit.											
111.1	112.6,	0.4m recovered)		At 112.6, both the clay matrix and the rock fragments it contains become sulphidic, predominantly fine grained pyrite.											
				113.4 - 135.5 MINERALISED VOLCANICLASTIC BRECCIAS. STRONGLY SULPHIDIC AND SERICITIC. SILICIFIED ZONES ALSO OCCUR.											
113.4	116.0	2.6	100	Medium-dark grey sheared and moderately fractured sulphidic volcaniclastics. A brecciated rock originally with textures overprinted by sericite-pyrite. This unit is only weakly silicified, and contains little carbonates. Small, silicified, pebble-sized clasts are still visible in the fine grained sulphidic-sericitic matrix. Sulphides are 5-10% by volume.	T3712	112.6	113.4	100	0.117	3.5	29	105	75	30	10
					3		114.4	"	0.083	4.0	30	110	55	20	<10
					4		115.4	"	"	"	31	"	"	"	20
					5		116.0	"	0.032	1.5	19	50	35	"	10
					6		117.0	"	0.117	8.5	23	40	70	15	30
116.0	128.0	12.0	100	Medium grey-pink-green foliated volcaniclastic breccias as above. Similar in original rock type, alteration and sulphide content to above, but the sericite is green rather than grey. Also, the clasts present are more abundant and are pink, thus becoming more obvious. Sulphides are fine grained and are around 5% by volume. Foliation occurs at 40° CA. This unit is only weakly fractured and is relatively unveined. Weak carbonate alteration occurs rarely. At 126.3, the core becomes strongly sericitic over the 0.7m to 127.0. At 127.0, the last 1.0m of this unit is intensely fractured and sericitic.	7		118.0	"	0.142	12.5	33	65	140	20	20
					8		119.0	"	0.032	5.5	18	30	60	"	<10
					9		120.0	"	0.050	7.0	20	"	65	15	"
					T3720		121.0	"	0.017	4.5	24	20	40	25	"
					1		122.0	"	0.017	5.5	18	"	35	30	"
					2		123.0	"	0.058	7.0	22	30	55	40	"
					3		124.0	"	0.032	7.0	23	20	35	25	10
					4		125.0	"	0.017	2.0	"	"	20	"	<10
					5		126.0	"	0.025	2.5	17	"	5	30	"
					T3726	126.0	127.0	"	0.017	1.5	8	25	10	"	"

015102

GOLD FIELDS EXPLORATION PTY. LIMITED

ULV. PRESS

PROJECT: TYNDALL

DRILL CORE LOG AND ASSAY DATA

HOLE NUMBER: HP.9

INTERVAL From	INTERVAL To	RECOVERY m	RECOVERY %	DESCRIPTION
128.0	130.0	2.0	100	A sharp contact occurs with the above unit, into a strongly silicified breccia. White-grey in colour, this sequence consists of a silica-flooded breccia with wispy stringers of sulphides commonly developed as interstitial fillings. Base metal sulphides are particularly conspicuous, especially galena. The overall sulphide content is 5%, all base metal sulphides. The core is unfractured and weakly veined.
130.0	135.5	5.5	100	Another sharp contact into strongly sheared, sulphidic volcaniclastic breccias. Sulphides are strongly developed in this unit, at 15-20% by volume. The rock is medium grey, with abundant silicified clasts clearly visible in a fine grained sericitic-sulphidic matrix. The unit is strongly fractured in sevral zones and is foliated at 42° CA. Veining is poorly developed and base metal sulphides, particularly chalcopyrite are present. Several 10-15 cm thick zones of strong base metal sulphide development occur at 131.7 and 135.0.
				135.5 - 190.0 VOLCANICLASTIC BRECCIAS WITH MINOR LAVAS AND PYROCLASTICS. WEAKLY ALTERED.
135.5	138.4	2.6	90	Intensely silicified volcaniclastic breccia. Very weakly sulphidic <0.1% by volume, with the silica flooding obscuring most of the primary textures. The rock is pale green-pink in colour. Small quartz veinlets overprint this sequence, which is structureless and weakly fractured.
138.4	156.0	17.6	100	Weakly silicified and foliated volcaniclastic. Poddy, pink felsic clasts, elongated to the prevailing foliation, in a fine grained sericitic-chloritic-siliceous matrix. Overall, weakly sericitic and sulphides are rare (<0.1%). Very weakly fractured.

ASSAY DATA (ppm)

Sample No.	From	To	Rec. %	Au(FA.)	Ag	As	Cu	Pb	Zn	Bi
T3727	127.0	128.0	100	0.483	8.0	19	70	270	40	20
8		129.0	"	32.67*	101.0	34	3250	0.94%	400	450
9		130.0	"	11.83*	90.0	30	2925	1.04%	350	310
T3730		131.0	"	1.330	12.0	32	355	525	90	40
1		132.0	"	0.367	11.0	45	1750	0.65%	0.87%	20
2		133.0	"	0.267	9.5	55	605	800	385	<10
3		134.0	"	0.167	7.5	37	120	610	805	"
T3734		135.0	"	0.333	14.0	260	3025	1.32%	2.70%	10
T3736		135.5	"	0.233	19.0	160	2875	0.75%	0.62%	50
T3738		136.5	90	0.017	3.0	12	255	170	160	<10
9		137.5	"	<0.008	2.0	9	25	10	35	20
T3740	137.5	138.5	"	"	1.0	6	115	35	65	<10

* FA. with a gravimetric finish

GOLD FIELDS EXPLORATION PTY. LIMITED

015103

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PROJECT: TYNDALL

DRILL CORE LOG AND ASSAY DATA

HOLE NUMBER: HP.9

Page: 5

INTERVAL From	INTERVAL To	RECOVERY m	RECOVERY %	DESCRIPTION	ASSAY DATA Sample No.	From	To	Rec. %
				Between 143.2 and 145.6, the core is highly fractured with pale green sericite moderately developed on fractures. Below this fractured zone, the rock is less siliceous, and primary textures are more apparent - a coarse, poorly sorted, angular breccia. Rare quartz veins occur. Below 153.3, the sulphide content begins to increase, to around 1-2% by volume. The sulphide is fine grained pyrite.				
56.0	168.4	12.2	98	Dark grey-pink coarse volcaniclastic breccia, similar in original lithology to the unit above, but more sulphidic (up to 5% by volume). The rock is more fractured, more sericitic, contains more siliceous zones and veins, and has crenulated cleavage and small-scale faults (post lithification). In places the core becomes strongly fractured into small blocky and sheared fragments, and several crush zones of completely shattered rock and clay, also occur. The sulphides consist mainly of very fine pyrite with rare chalcopyrite, in the rock matrix. The lower 6.4m of this unit (162.0-168.4) is strongly sericitic				
67.0	168.4,	1.2m recovered)		and strongly fractured. The sulphide content drops to 1% by volume below 165.0. A sharp contact occurs with the unit below.				
168.4	171.8	3.4	100	Vein/silicified zone. A thick, white massive quartz veins with strongly silicified rock selvedges. Fractured in several places with sericitic wallrock inclusions. The vein is not sulphidic although several of the wallrock fragments are weakly pyritic. The major vein occurs between 169.6 and 171.6.				
171.8	185.0	12.9	98	The coarse volcaniclastic breccia unit returns, but here is strongly silicified. It is also strongly sericitic, with both alteration styles occurring in patches. The sericite is pale green/white and where strongly developed, accompanies strong fracturing. Quartz and sericite veinlets are common, forming networks criss-crossing the core. Sulphides as very fine pyrite are weakly developed (>1% by volume). The rock is unfoliated. The coarse, angular gritty breccia textures				

015104

GOLD FIELDS EXPLORATION PTY. LIMITED

SILV. PRESS

PROJECT: TYNDALL

DRILL CORE LOG AND ASSAY DATA

HOLE NUMBER: HP.9

Page: 10

INTERVAL From	INTERVAL To	RECOVERY m	RECOVERY %	DESCRIPTION	ASSAY DATA Sample No.	From	To	Rec. %
				of pink fragments in a dark green matrix can be seen beneath				
				the overprinting alteration. With increasing depth, the rock				
182.7	184.4,	1.4m recovered		becomes very matrix dominated and appears to be an autobrec-				
				ciated felsic lava (red in colour).				
185.0	190.0	5.0	100	The upper contact of this unit is a small (20 cm) quartz vein				
				with a narrow (0.3m) fractured, clayey zone. Minor sulphides				
				occur (up to 2% by volume).				
				Below 185.5, the core is still fractured but with depth becomes				
				unfractured. The rock is pale green/grey in colour and is				
				moderately sericitic but unsilicified. It is weakly foliated				
				at 45° CA. The original rock type appears to be a volcani-				
				clastic breccia with lava fragments, grading down into a pyro-				
				clastic sequence. Overall it is weakly altered, with little				
				sulphides (>0.1%) apart from rare vein "sweat-outs".				
				A 20 cm quartz vein (metamorphic) occurs at 198.8.				
				END OF HOLE 190.0m.				

REPORT CMS 86/5/32
Part A

At the request of P.A. Roberts, seven drill core samples from an Au-mineralised zone at the Henty prospect were received for petrological and mineragraphic examination. Representative thin- and polished sections were prepared and examined together with the respective offcuts, with stain tests performed as warranted. Attached semi- to detailed descriptions summarise the microscopic data, with some samples described in relative detail and others partly by analogy.

Summary

All seven samples reflect marked and pervasive silicification, with development of fine to microcrystalline quartz often enhanced by fine-scale networks of quartz veinlets. Primary lithological characteristics are thus largely obscure. Vague relict features, notably metasomatised, poorly sorted psammitic lithoclastic fabrics, ubiquitous accessory leucoxenised opaques, and sparse corroded clastic quartz grains, are consistent with an altered tuffaceous or volcanically derived (volcanomict) sedimentary paragenesis. Compositional detail is thoroughly obscured, although lithoclasts appear to have been broadly intermediate-acid (andesitic-dacitic) in composition. Minor sericitic and locally phosphatic (apatitic) shaly partings are evident in individual samples, but the main primary variation appears to have been modal framework sizing.

Microscopic clots and rhombs of Fe-carbonate (sideritic to locally ankeritic) are a ubiquitous accessory to the pervasive silicification, along with trace to minor proportions of fine-grained pyrite. In addition, these rocks exhibit complex multistage vein effects. Individual veins are typically narrow (strictly veinlets), rarely exceeding a few millimetres and frequently less than one millimetre in width, and discontinuous. Temporal relationships are further obscured by subsequent stress effects. Considering the suite as a whole, however, a generalised vein sequence may be summarised:

1. Early networks of barren quartz veinlets grading into quartz-carbonate clots and films with accessory sulphides. Associated are minor millimetric-scale, relatively carbonate-rich and sulphide-mineralised veins, typically strongly stressed.

2. Discontinuous crosscutting simple (lensoid) to complex (anastomising) stringers with a sericite-quartz-carbonate gangue assemblage and a disseminated to semi-massive pyritic sulphide assemblage.

   This group may be subdivided into two semi-distinct stringer types, sericite, and quartz-carbonate-rich, interpreted as temporally early and semi-contemporaneous to late respectively.

3. Variably mineralised quartz-carbonate veinlets. These exhibit crosscutting/locally displacive relationships with the relatively mineralised stringers, and grade into essentially unmineralised carbonate-quartz veinlets.

4. Late carbonate veinlets, typically microscopic, weakly displacive, and unmineralised apart from thinly dispersed (?mechanically included) sulphides.

Mineragraphic examination confirms a rather uniform sulphide assemblage of pyrite, galena, sphalerite, and chalcopyrite, locally supplemented by tetrahedrite-tennantite. Accessories include bismuth, native silver, proustite-pyrargyrite, and gold.

The major (pyrite, galena, sphalerite, chalcopyrite) assemblage is common to all vein types, although in detail temporally early veinlets tend to be relatively sphalerite-rich and intermediate types relatively galena- and chalcopyrite-rich. Carbonate-quartz veinlets are relatively devoid of pyrite. Sericitic stringers are relatively sphaleritic,and quartz-carbonate-gangued types exhibit enhanced galena and chalcopyrite contents.

Bismuth, silver and gold appear essentially restricted to galena-chalcopyrite-rich, pyritic, quartz-carbonate-gangued stringers.

Bismuth was observed only as micron-sized particles in spongy microcrystalline composites of bismuth and galena, bismuth and chalcopyrite(± galena) or, rarely, with accessory tetrahedrite. These features are typically galena-hosted and are interpreted as breakdown products after Pb-Bi and Cu-Bi-Fe sulphides or sulphosalts (e.g. galenobismutite, coselite, lillianite, aikinite, nuffieldite, wittichenite, cuprobismutite). Rarely, these aggregates include ultrafine native silver particles (degraded schirmerite, schapbachite or pavonite?), including the chalcopyritic types (after benjaminite, berryite, neyite?).

Elsewhere, native silver is present as micro-inclusions in galena. Rare proustite, pale gold and possibly the tetrahedrite-tennantite also represent loci of Ag.

Gold was detected only in association with bismuth-bearing siliceous veinlets ("stringers"), and there thus appears to be a positive correlation between Au, Bi and Ag.

In detail, gold exhibits a spotty distribution with pyritic siliceous stringers and marginal areas of silicified host rock. Four coarse particles were noted in stereobinocular examination of the T 3744 thin-section, but the related polished section contained no detectable gold particles. Subsequently, this briquette was reground and polished with seven gold particles detected. An additional polished section of the same stringer exhibits approximately forty gold particles. Total observed sizing range is approximately 5 μ to 230 μ, with a marked mode in the 15-30 μ range and an overall mean of circa 20 μ. Approximately 35 % of observed gold particles are intergranular to quartz in marginal siliceous zones of the stringer or in associated discontinuous quartz veinlets. The remainder are sulphide-hosted. Virtually all of these are enclosed in galena. One particle, only, was observed as a partial inclusion in pyrite. Gold particles in tetrahedrite films healing fractures in pyrite represent a minor distributional mode.

Silicate (quartz) -hosted gold is optically yellow, with an inferred high fineness. Sulphide-hosted gold is relatively pale and apparently relatively argentiferous.

It is noted that a previous investigation (CMS 84/6/35) recorded gold mineralisation in a sericitic veinlet. The then inferred vein sequence is essentially confirmed by the present investigation, although expanded by the temporally intermediate to late siliceous stringers, carbonate-quartz and (late) carbonate veinlets. Overall, a temporally intermediate introduction of gold in association with pyritic-sericitic to siliceous stringer-type veinlets is evident, with an apparent concentration in siliceous bismuth-bearing types.

There is some evidence of zoning, with an apparent concentration of relatively Bi-, Au-, Ag-mineralised veinlets in core zones of the current sampled assay interval.

As detected to date, gold would be considered as highly amenable to orthodox concentration and recovery methods, specifically fine grinding and cyanide-leach recovery with or without preconcentration by bulk sulphide flotation. Silver, in comparison, would appear to be relatively metallurgically problematical due to the ultrafine sizing, mineralogical diversity and presence of proustite (-pyrargyrite) as a semi-refractory component to cyanidation.

D. Cowan, B. Sc.

A 23007

GOLD FIELDS EXPLORATION PTY. LIMITED
DRILL CORE RECORD

015107

HOLE No. : HP.9
STATE : TASMANIA

106

REPORT CMS 86/5/32
Part A

Petrological/Mineragraphic Descriptions

T 3741
H.P.9
128·2 – 128·3

(T.S., P.S. 56114)
This may be broadly classified as a quartz rock and represents a thoroughly silicified clastic sediment with vague relict "volcaniclastic" characteristics.

The major constituent is fine-grained to microcrystalline quartz, incipiently sericite-stained and of hydrothermal replacive character. Microscopic clots and rhombs of ankeritic carbonate are thinly disseminated throughout. Accessories include fine-grained clots and crude contorted lenses of apatite, thinly disseminated relict clastic quartz grains, and minor leucoxenic semi-opaques.

Apatitic zones tend to be relatively sericitic. Vague, poorly sorted, sand-sized silicified clasts are present and may exhibit faint relict perlitic microstructures. General features are consistent with a thoroughly altered, weakly phosphatic, pelite-parted "tuffaceous" sandy sediment. The sectioned area includes a contorted, crudely crustiform band of quartz and ankeritic carbonate which conceivably represents a metasomatised "limey" (?dolomitic) interbed. Full interpretation is negated by the intense alteration and obliteration of finer details.

The rock as a whole is weakly mineralised with erratically disseminated very fine-grained (typically < 25 μ) pyrite. Sporadic irregular stringer-like sulphide concentrations exhibit a fine-grained pyrite-galena assemblage with accessory sphalerite, traces of chalcopyrite and a sericite/subordinate quartz/minor carbonate gangue. These features are intersected and displaced by sparse carbonate-quartz veinlets (to 3 mm, typically < 1 mm wide) with disseminations of chalcopyrite, subordinate to minor galena, and minor chalcopyrite-included pyrite. Frequent late irregular, mildly displacive, carbonate-healed microfractures include traces of galena and chalcopyrite.

Close examination revealed no detectable gold, optically specific silver minerals, or bismuth.

T 3742
H.P.9
128·3 – 128·5

(T.S., P.S. 56115)
This rock is essentially similar to T 3741. In comparison, leucoxenised opaques are relatively abundant locally. Minor silicified shaly partings are evident, but the fine apatite component appears in minor traces only. A poorly sorted sandy clastic fabric is evident, although largely obscured by marked and pervasive silicification. Leucoxenic opaques are concentrated in relatively coarse (silicified clasts), interpreted as primarily "andesitic" lava clasts. General features are suggestive of a thoroughly altered, lithoclastic tuffaceous or volcanomict sediment.

Irregular discontinuous quartz veinlets, ranging to a few millimetres in width, carry disseminated clots of sideritic carbonate and irregular networks of films of galena, supplemented by disseminations of pyrite, rare quartz-intergranular blebs of pale sphalerite, and traces of chalcopyrite.

These features are locally intersected by sericitic stringers of disseminated to semi-massive pyrite (mean 30-40 μ to 200 μ), with minor intergranular and included galena, varying proportions of similarly distributed sphalerite, and traces of chalcopyrite and tetrahedrite.

Frequent crosscutting, mildly displacive carbonate-quartz veinlets carry a disseminated chalcopyrite-galena-pyrite assemblage analogous to that noted in T 3741.

T 3743
H.P.9
128·7 – 128·8

(T.S., P.S. 56116)
This is a weakly carbonate-, pyrite- and sericite-stained microcrystalline quartz rock with close affinities to T 3741 and particularly T 3742. Silicification features are enhanced by a more or less pervasive network of fine-grained quartz veinlets. These obscure the primary fabric which, however, appears to have been relatively coarsely ("lapilli grade") lithoclastic. Leucoxenised opaques are relatively evenly distributed, consistent with a relatively tuffaceous or volcanomict/reworked tuffaceous facies.

The microscale early generation quartz veinlets are incipiently pyritic and grade into modally coarser-grained types with accessory carbonate, minor sericite and relatively abundant pyrite dispersed in erratic microscale clusters.

A crosscutting, semi-continuous, anastomosing stringer consists of quartz, sericite and pyrite in varying proportions with accessory carbonate, apatite, galena, and chalcopyrite.

This feature is intersected by a quartz-carbonate veinlet, 350 μ to 1.2 mm in width, with sporadic clots of sulphide. Mineragraphic examination confirms a chalcopyrite-galena/ minor pyrite assemblage. Galena carries thinly dispersed composite spongy aggregates of ultrafine (typically < 5 μ) bismuth particles in a matrix of galena, or elsewhere, chalcopyrite. Micron-sized native silver particles appear as rare micro-inclusions (max. 10 μ) in galena and locally in association with the bismuth-galena-chalcopyrite complexes. Rare bismuth-stained tetrahedrite is similarly galena-included.

Bismuth-bearing galena, chalcopyrite (and tetrahedrite) clots range to around 200 μ diameter, with a mode of 40-60 μ. These features are interpreted as breakdown products after Cu-Bi and Pb-Bi phases (e.g. galenobismutite).

Late crosscutting films of carbonate occur sporadically

A 23507

GOLD FIELDS EXPLORATION PTY. LIMITED
DRILL CORE RECORD

015108

HOLE No. : HP.9
STATE : TASMANIA

T 3744
H.P.9
128·95 - 129·0

(T.S., P.S. 56117)
The host rock, here, is closely analogous to T 3743 and similarly exhibits an early generation of semi-pervasive quartz veinlet networks.

The bulk of mineralisation is associated with a contorted siliceous stringer ranging to a few millimetres in width. This feature carries accessory sericite, marginally dispersed clots of sideritic carbonate, and is accompanied by frequent anastomosing discontinuous films of carbonate, quartz and sulphide, grading marginally into discrete clots and discontinuous microscale films.

The associated sulphide assemblage comprises an- to subhedral pyrite (uneven-grained to 250 μ) with conspicuous galena, subordinate chalcopyrite, and traces of galena and tetrahedrite-tennantite.

Galena exhibits rare sub-10 μ inclusions of native silver and includes sporadic microcrystalline bismuth-galena-chalcopyrite composites analogous to those noted in T 3743.

Stereobinocular examination of the thin-section revealed four gold particles ranging from 75 μ to 170x230 μ, disseminated in sub- to marginal zones of semi-massive sulphide aggregates at the core of the siliceous stringer. Close examination of the representative polished section revealed no detectable gold particles, consistent with a coarse and "spotty" distributional/sizing mode.

Host rock sulphide disseminations, associated with the discontinuous films and semi- to discrete clots reflect a pyrite-sphalerite-galena-chalcopyrite assemblage with no detectable associated bismuth, silver or gold.

T 3745
H.P.9
129·2 - 129·25

(T.S., P.S. 56118)
This is a typical "silicified volcanoclastic", with an early generation of microscale quartz veinlets grading into sporadic coarser-grained, sub- to fine millimetric-scale, vug-like aggregates of quartz with a little associated carbonate and minor sulphides (pyrite, galena, pale sphalerite).

These features are stressed, intersected and displaced by a microscale network of discontinuous sericitic microfractures grading into pyritic quartz-sericite films and into quartz-carbonate-gangued pyritic stringers. Crosscutting, weakly mineralised carbonate-quartz and late, relatively massive sideritic carbonate veinlets complete the vein sequence which is closely analogous to that in the associated samples. Veining is on a relatively fine scale, with individual stringers or veinlets rarely exceeding 1 mm and typically < 300 μ in width.

Mineragraphic examination of a pyritic, siliceous stringer (200-750 μ in width) confirms a pyrite, subordinate sphalerite, galena, minor chalcopyrite assemblage. Chalcopyrite is concentrated in marginal, siliceous clots (blind veinlets) with accessory carbonate. The bulk of sulphide is concentrated in semi-massive aggregates flanked by quartz, with sphalerite and galena exhibiting a typical pyrite-intergranular to partly included habit.

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Accessory traces of tetrahedrite-tennantite are present as sporadic blebs (to 50 μ) interspersed with galena and sphalerite. Quartz aggregates, marginal to the main sulphide aggregates, carry rare microscopic blebs (max. 20 μ) of proustite in isolated loose clusters of two to four particles. Four particles of pale gold (argentiferous/trend electrum on the basis of optical colour) were observed as disseminations on pyrite-sphalerite and pyrite-quartz grain contacts. These features are sized from about 5 μ to 15 μ with equant to irregular flaky habits.

Close examination revealed no detectable bismuth mineralisation.

T 3746
H.P.9
129·5 - 129·6

(T.S, P.S. 56119)
This rock is a relatively carbonate-stained but otherwise typical silicified volcanoclastic. In comparison with associated samples, vein relationships are poorly diagnostic due to slightly relatively marked stress and shearing effects.

Sericitic microfractures and sericitic siliceous pyritic stringers are relatively abundant and exhibit mutual crosscutting relationships with sporadic discontinuous sulphide-mineralised veinlets of quartz and sideritic carbonate. These features exhibit pyrite/minor galena-sphalerite/trace chalcopyrite and chalcopyrite/minor galena-trace pyrite assemblages respectively.

Mineragraphic examination revealed no detectable bismuth, silver minerals or gold. Late crosscutting carbonate-healed microfractures occur sporadically.

T 3747
H.P.9
129·9 - 130·0

(T.S., P.S. 56120)
This sample represents a silicified volcanoclastic paragenesis closely analogous to that of T 3741-T 3746. Relict features comprise a faint relict, poorly sorted, sandy lithoclastic fabric with altered lava clasts delineated by accessory leucoxenised opaques. The rock now consists largely of fine to microcrystalline quartz aggregates, weakly stained with sericite and microscopic sideritic carbonate rhombs.

An early generation of irregular discontinuous quartz veinlets is evident. These are intersected by an irregular network of sericite veinlets grading into sericite-quartz veinlets with accessory, pyrite and carbonate. A crudely lensoid, relatively coarse pyritic stringer exhibits a quartz gangue with marginal selvedges of sericite, accessory galena, minor chalcopyrite, rare sphalerite, and minor traces of galena-included bismuth.

Mineralisation is supplemented by sparse discontinuous films and submillimetric-scale irregular clots of quartz, carbonate, chalcopyrite, and galena. Close examination revealed no detectable gold.

D. Cowan, B. Sc.

APPENDIX 6

PETROGRAPHIC DESCRIPTIONS OF THE MINERALISED ZONE INTERSECTED IN HP9

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015110

Central Mineralogical Services

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

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

12th June, 1986

DATE: 16 JUN 1986
FILE No.: 9510/3
INITIALS: R

REPORT CMS 86/5/32
Part A

YOUR REFERENCE:	Letter dated 27.5.1986
DATE RECEIVED:	29th May, 1986
SAMPLE NOS.:	T 3741 - T 3747
SUBMITTED BY:	P.A. Roberts
WORK REQUESTED:	Petrology

H.W. Fander, M. Sc.

REPORT CMS 86/5/32
Part A

At the request of P.A. Roberts, seven drill core samples from an Au-mineralised zone at the Henty prospect were received for petrological and mineragraphic examination. Representative thin- and polished sections were prepared and examined together with the respective offcuts, with stain tests performed as warranted. Attached semi- to detailed descriptions summarise the microscopic data, with some samples described in relative detail and others partly by analogy.

Summary

All seven samples reflect marked and pervasive silicification, with development of fine to microcrystalline quartz often enhanced by fine-scale networks of quartz veinlets. Primary lithological characteristics are thus largely obscure. Vague relict features, notably metasomatised, poorly sorted psammitic lithoclastic fabrics, ubiquitous accessory leucoxenised opaques, and sparse corroded clastic quartz grains, are consistent with an altered tuffaceous or volcanically derived (volcanomict) sedimentary paragenesis. Compositional detail is thoroughly obscured, although lithoclasts appear to have been broadly intermediate-acid (andesitic-dacitic) in composition. Minor sericitic and locally phosphatic (apatitic) shaly partings are evident in individual samples, but the main primary variation appears to have been modal framework sizing.

Microscopic clots and rhombs of Fe-carbonate (sideritic to locally ankeritic) are a ubiquitous accessory to the pervasive silicification, along with trace to minor proportions of fine-grained pyrite. In addition, these rocks exhibit complex multistage vein effects. Individual veins are typically narrow (strictly veinlets), rarely exceeding a few millimetres and frequently less than one millimetre in width, and discontinuous. Temporal relationships are further obscured by subsequent stress effects. Considering the suite as a whole, however, a generalised vein sequence may be summarised:

1. Early networks of barren quartz veinlets grading into quartz-carbonate clots and films with accessory sulphides. Associated are minor millimetric-scale, relatively carbonate-rich and sulphide-mineralised veins, typically strongly stressed.

2. Discontinuous crosscutting simple (lensoid) to complex (anastomising) stringers with a sericite-quartz-carbonate gangue assemblage and a disseminated to semi-massive pyritic sulphide assemblage.

   This group may be subdivided into two semi-distinct stringer types, sericite, and quartz-carbonate-rich, interpreted as temporally early and semi-contemporaneous to late respectively.

3. Variably mineralised quartz-carbonate veinlets. These exhibit crosscutting/locally displacive relationships with the relatively mineralised stringers, and grade into essentially unmineralised carbonate-quartz veinlets.

4. Late carbonate veinlets, typically microscopic, weakly displacive, and unmineralised apart from thinly dispersed (?mechanically included) sulphides.

Mineragraphic examination confirms a rather uniform sulphide assemblage of pyrite, galena, sphalerite, and chalcopyrite, locally supplemented by tetrahedrite-tennantite. Accessories include bismuth, native silver, proustite-pyrargyrite, and gold.

The major (pyrite, galena, sphalerite, chalcopyrite) assemblage is common to all vein types, although in detail temporally early veinlets tend to be relatively sphalerite-rich and intermediate types relatively galena- and chalcopyrite-rich. Carbonate-quartz veinlets are relatively devoid of pyrite. Sericitic stringers are relatively sphaleritic,and quartz-carbonate-gangued types exhibit enhanced galena and chalcopyrite contents.

Bismuth, silver and gold appear essentially restricted to galena-chalcopyrite-rich, pyritic, quartz-carbonate-gangued stringers.

Bismuth was observed only as micron-sized particles in spongy microcrystalline composites of bismuth and galena, bismuth and chalcopyrite(± galena) or, rarely, with accessory tetrahedrite. These features are typically galena-hosted and are interpreted as breakdown products after Pb-Bi and Cu-Bi-Fe sulphides or sulphosalts (e.g. galenobismutite, cosalite, lillianite, aikinite, nuffieldite, wittichenite, cuprobismutite). Rarely, these aggregates include ultrafine native silver particles (degraded schirmerite, schapbachite or pavonite?), including the chalcopyritic types (after benjaminite, berryite, neyite?).

Elsewhere, native silver is present as micro-inclusions in galena. Rare proustite, pale gold and possibly the tetrahedrite-tennantite also represent loci of Ag.

Gold was detected only in association with bismuth-bearing siliceous veinlets ("stringers"), and there thus appears to be a positive correlation between Au, Bi and Ag.

In detail, gold exhibits a spotty distribution with pyritic siliceous stringers and marginal areas of silicified host rock. Four coarse particles were noted in stereobinocular examination of the T 3744 thin-section, but the related polished section contained no detectable gold particles. Subsequently, this briquette was reground and polished with seven gold particles detected. An additional polished section of the same stringer exhibits approximately forty gold particles. Total observed sizing range is approximately 5 μ to 230 μ, with a marked mode in the 15-30 μ range and an overall mean of circa 20 μ. Approximately 35 % of observed gold particles are intergranular to quartz in marginal siliceous zones of the stringer or in associated discontinuous quartz veinlets. The remainder are sulphide-hosted. Virtually all of these are enclosed in galena. One particle, only, was observed as a partial inclusion in pyrite. Gold particles in tetrahedrite films healing fractures in pyrite represent a minor distributional mode.

Silicate (quartz) -hosted gold is optically yellow, with an inferred high fineness. Sulphide-hosted gold is relatively pale and apparently relatively argentiferous.

It is noted that a previous investigation (CMS 84/6/35) recorded gold mineralisation in a sericitic veinlet. The then inferred vein sequence is essentially confirmed by the present investigation, although expanded by the temporally intermediate to late siliceous stringers, carbonate-quartz and (late) carbonate veinlets. Overall, a temporally intermediate introduction of gold in association with pyritic-sericitic to siliceous stringer-type veinlets is evident, with an apparent concentration in siliceous bismuth-bearing types.

There is some evidence of zoning, with an apparent concentration of relatively Bi-, Au-, Ag-mineralised veinlets in core zones of the current sampled assay interval.

As detected to date, gold would be considered as highly amenable to orthodox concentration and recovery methods, specifically fine grinding and cyanide-leach recovery with or without preconcentration by bulk sulphide flotation. Silver, in comparison, would appear to be relatively metallurgically problematical due to the ultrafine sizing, mineralogical diversity and presence of proustite (-pyrargyrite) as a semi-refractory component to cyanidation.

D. Cowan, B. Sc.

REPORT CMS 86/5/32
Part A

Petrological/Mineragraphic Descriptions

T 3741 (T.S., P.S. 56114)
H.P.9 This may be broadly classified as a quartz rock and represents a thoroughly silicified clastic sediment with vague relict "volcaniclastic" characteristics.
128·2 – 128·3

The major constituent is fine-grained to microcrystalline quartz, incipiently sericite-stained and of hydrothermal replacive character. Microscopic clots and rhombs of ankeritic carbonate are thinly disseminated throughout. Accessories include fine-grained clots and crude contorted lenses of apatite, thinly disseminated relict clastic quartz grains, and minor leucoxenic semi-opaques.

Apatitic zones tend to be relatively sericitic. Vague, poorly sorted, sand-sized silicified clasts are present and may exhibit faint relict perlitic microstructures. General features are consistent with a thoroughly altered, weakly phosphatic, pelite-parted "tuffaceous" sandy sediment. The sectioned area includes a contorted, crudely crustiform band of quartz and ankeritic carbonate which conceivably represents a metasomatised "limey" (?dolomitic) interbed. Full interpretation is negated by the intense alteration and obliteration of finer details.

The rock as a whole is weakly mineralised with erratically disseminated very fine-grained (typically < 25 μ) pyrite. Sporadic irregular stringer-like sulphide concentrations exhibit a fine-grained pyrite-galena assemblage with accessory sphalerite, traces of chalcopyrite and a sericite/subordinate quartz/minor carbonate gangue. These features are intersected and displaced by sparse carbonate-quartz veinlets (to 3 mm, typically < 1 mm wide) with disseminations of chalcopyrite, subordinate to minor galena, and minor chalcopyrite-included pyrite. Frequent late irregular, mildly displacive, carbonate-healed microfractures include traces of galena and chalcopyrite.

Close examination revealed no detectable gold, optically specific silver minerals, or bismuth.

T 3742 (T.S., P.S. 56115)
H.P.9 This rock is essentially similar to T 3741. In comparison, leucoxenised opaques are relatively abundant locally. Minor silicified shaly partings are evident, but the fine apatite component appears in minor traces only. A poorly sorted sandy clastic fabric is evident, although largely obscured by marked and pervasive silicification. Leucoxenic opaques are concentrated in relatively coarse (silicified clasts), interpreted as primarily "andesitic" lava clasts. General features are suggestive of a thoroughly altered, lithoclastic tuffaceous or volcanomict sediment.
128·3 – 128·5

Irregular discontinuous quartz veinlets, ranging to a few millimetres in width, carry disseminated clots of sideritic carbonate and irregular networks of films of galena, supplemented by disseminations of pyrite, rare quartz-intergranular blebs of pale sphalerite, and traces of chalcopyrite.

These features are locally intersected by sericitic stringers of disseminated to semi-massive pyrite (mean 30-40 μ to 200 μ), with minor intergranular and included galena, varying proportions of similarly distributed sphalerite, and traces of chalcopyrite and tetrahedrite.

Frequent crosscutting, mildly displacive carbonate-quartz veinlets carry a disseminated chalcopyrite-galena-pyrite assemblage analogous to that noted in T 3741.

T 3743

H.P.9

128·7–128·8

(T.S., P.S. 56116)
This is a weakly carbonate-, pyrite- and sericite-stained microcrystalline quartz rock with close affinities to T 3741 and particularly T 3742. Silicification features are enhanced by a more or less pervasive network of fine-grained quartz veinlets. These obscure the primary fabric which, however, appears to have been relatively coarsely ("lapilli grade") lithoclastic. Leucoxenised opaques are relatively evenly distributed, consistent with a relatively tuffaceous or volcanomict/reworked tuffaceous facies.

The microscale early generation quartz veinlets are incipiently pyritic and grade into modally coarser-grained types with accessory carbonate, minor sericite and relatively abundant pyrite dispersed in erratic microscale clusters.

A crosscutting, semi-continuous, anastomosing stringer consists of quartz, sericite and pyrite in varying proportions with accessory carbonate, apatite, galena, and chalcopyrite.

This feature is intersected by a quartz-carbonate veinlet, 350 μ to 1.2 mm in width, with sporadic clots of sulphide. Mineragraphic examination confirms a chalcopyrite-galena/ minor pyrite assemblage. Galena carries thinly dispersed composite spongy aggregates of ultrafine (typically < 5 μ) bismuth particles in a matrix of galena, or elsewhere, chalcopyrite. Micron-sized native silver particles appear as rare micro-inclusions (max. 10 μ) in galena and locally in association with the bismuth-galena-chalcopyrite complexes. Rare bismuth-stained tetrahedrite is similarly galena-included.

Bismuth-bearing galena, chalcopyrite (and tetrahedrite) clots range to around 200 μ diameter, with a mode of 40-60 μ. These features are interpreted as breakdown products after Cu-Bi and Pb-Bi phases (e.g. galenobismutite).

Late crosscutting films of carbonate occur sporadically.

T 3744 (T.S., P.S. 56117)
H.P.9 The host rock, here, is closely analogous to T 3743 and similarly exhibits an early generation of semi-pervasive quartz veinlet networks.

128.95-129.0 The bulk of mineralisation is associated with a contorted siliceous stringer ranging to a few millimetres in width. This feature carries accessory sericite, marginally dispersed clots of sideritic carbonate, and is accompanied by frequent anastomosing discontinuous films of carbonate, quartz and sulphide, grading marginally into discrete clots and discontinuous microscale films.

The associated sulphide assemblage comprises an- to subhedral pyrite (uneven-grained to 250 μ) with conspicuous galena, subordinate chalcopyrite, and traces of galena and tetrahedrite-tennantite.

Galena exhibits rare sub-10 μ inclusions of native silver and includes sporadic microcrystalline bismuth-galena-chalcopyrite composites analogous to those noted in T 3743.

Stereobinocular examination of the thin-section revealed four gold particles ranging from 75 μ to 170x230 μ, disseminated in sub- to marginal zones of semi-massive sulphide aggregates at the core of the siliceous stringer. Close examination of the representative polished section revealed no detectable gold particles, consistent with a coarse and "spotty" distributional/sizing mode.

Host rock sulphide disseminations, associated with the discontinuous films and semi- to discrete clots reflect a pyrite-sphalerite-galena-chalcopyrite assemblage with no detectable associated bismuth, silver or gold.

T 3745 (T.S., P.S. 56118)
H.P.9 This is a typical "silicified volcanoclastic", with an early generation of microscale quartz veinlets grading into sporadic coarser-grained, sub- to fine millimetric-scale, vug-like aggregates of quartz with
129.2-129.25 a little associated carbonate and minor sulphides (pyrite, galena, pale sphalerite).

These features are stressed, intersected and displaced by a microscale network of discontinuous sericitic microfractures grading into pyritic quartz-sericite films and into quartz-carbonate-gangued pyritic stringers. Crosscutting, weakly mineralised carbonate-quartz and late, relatively massive sideritic carbonate veinlets complete the vein sequence which is closely analogous to that in the associated samples. Veining is on a relatively fine scale, with individual stringers or veinlets rarely exceeding 1 mm and typically < 300 μ in width.

Mineragraphic examination of a pyritic, siliceous stringer (200-750 μ in width) confirms a pyrite, subordinate sphalerite, galena, minor chalcopyrite assemblage. Chalcopyrite is concentrated in marginal, siliceous clots (blind veinlets) with accessory carbonate. The bulk of sulphide is concentrated in semi-massive aggregates flanked by quartz, with sphalerite and galena exhibiting a typical pyrite-intergranular to partly included habit.

Accessory traces of tetrahedrite-tennantite are present as sporadic blebs (to 50 μ) interspersed with galena and sphalerite. Quartz aggregates, marginal to the main sulphide aggregates, carry rare microscopic blebs (max. 20 μ) of proustite in isolated loose clusters of two to four particles. Four particles of pale gold (argentiferous/trend electrum on the basis of optical colour) were observed as disseminations on pyrite-sphalerite and pyrite-quartz grain contacts. These features are sized from about 5 μ to 15 μ with equant to irregular flaky habits.

Close examination revealed no detectable bismuth mineralisation.

T 3746
H.P. 9
129·5 - 129·6

(T.S, P.S. 56119)
This rock is a relatively carbonate-stained but otherwise typical silicified volcanoclastic. In comparison with associated samples, vein relationships are poorly diagnostic due to slightly relatively marked stress and shearing effects.

Sericitic microfractures and sericitic siliceous pyritic stringers are relatively abundant and exhibit mutual crosscutting relationships with sporadic discontinuous sulphide-mineralised veinlets of quartz and sideritic carbonate. These features exhibit pyrite/minor galena-sphalerite/trace chalcopyrite and chalcopyrite/minor galena-trace pyrite assemblages respectively.

Mineragraphic examination revealed no detectable bismuth, silver minerals or gold. Late crosscutting carbonate-healed microfractures occur sporadically.

T 3747
H.P. 9
129·9 - 130·0

(T.S., P.S. 56120)
This sample represents a silicified volcanoclastic paragenesis closely analogous to that of T 3741-T 3746. Relict features comprise a faint relict, poorly sorted, sandy lithoclastic fabric with altered lava clasts delineated by accessory leucoxenised opaques. The rock now consists largely of fine to microcrystalline quartz aggregates, weakly stained with sericite and microscopic sideritic carbonate rhombs.

An early generation of irregular discontinuous quartz veinlets is evident. These are intersected by an irregular network of sericite veinlets grading into sericite-quartz veinlets with accessory pyrite and carbonate. A crudely lensoid, relatively coarse pyritic stringer exhibits a quartz gangue with marginal selvedges of sericite, accessory galena, minor chalcopyrite, rare sphalerite, and minor traces of galena-included bismuth.

Mineralisation is supplemented by sparse discontinuous films and submillimetric-scale irregular clots of quartz, carbonate, chalcopyrite, and galena. Close examination revealed no detectable gold.

D. Cowan, B. Sc.

APPENDIX 7

PROPOSED DIAMOND DRILLING, WHITE SPUR

GFEL MEMORANDUM BY P.A. ROBERTS

GOLD FIELDS EXPLORATION PTY. LIMITED

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MEMORANDUM

015119

To L.A. Newnham cc: F.G. FitzGerald

Fr P.A. Roberts

Subject Proposed Diamond Drilling, White Spur

Date 15th May, 1986. PAR/9510/4

Further to our recent discussions, I would like to commit to paper our reasons for wishing to diamond drill one hole at White Spur in the north-western section of E.L.9/66. This memorandum will subsequently be used to form part of the conclusions and recommendations sections of the Tyndall Annual Report.

1. INTRODUCTION

White Spur is located in the north-western block of E.L.9/66, west of the Henty Project area (Figure 1). It is the only "live" prospect on the E.L. north-west of the Henty Fault and has been the focus of recurrent interest over the past decade primarily because it is underlain by the probable southern extension of the Rosebery host horizon (Figure 1).

Three phases of exploration effort have been completed over the prospect during the life of the E.L., viz:

(1) 1975-79 Mt. Lyell carried out gridding, ground magnetics, I.P. and soil geochemical surveys, followed by the completion of one 382m long diamond drill hole, WSP1.

(2) 1983-84 Getty Oil covered the area in a DIGHEM airborne E.M. survey and subsequently geologically mapped the prospect in detail.

(3) 1985 In February, 1985, the grid was surveyed with the UTEM ground E.M. system, unfortunately with negative results.

2. REVIEW OF PREVIOUS WORK

2.1 Geology (Figure 2)

FitzGerald's (1984) detailed mapping of the prospect revealed a complex sequence of variably altered (sericitized) pyroclastics and epiclastics together with essentially unaltered basic volcanics and/or intrusives and felsic intrusives. Of particular interest is a coherent, thick horizon of altered epiclastics 100m to 400m wide, which stretches from the E.L. boundary to south of Howards Road over a strike length of 1.3 km; the southern termination of this zone is abrupt and unexplained, however it is probably the result of either a fault or a fold closure.

Alteration of the sequence is variable however it generally becomes more intense to the north and is strongest within or on the margins of the epiclastic horizon.

Little mineralization is observed in surface exposures, however drill hole WSP1, which tested a gradient array I.P. anomaly, did obtain very minor pyrite, pyrrhotite and base metal sulfides (1-2%) disseminated through much of the core.

There is little evidence of facing in surface outcrops however a number of facings were recorded by A. Walter in the WSP1 drill log; these are predominantly up hole (west facing) in the upper part of the hole but are mixed deeper down (around 160m) possibly indicating tight folding and conceivably an isoclinal anticline axis (thus explaining the abrupt southern termination of the epiclastic horizon - a south plunging anticline?)

2.2 Geochemistry

Soil geochemistry results are generally patchy over this prospect, however some high base metal values were obtained (maxima: 1460 ppm Zn and 1850 ppm Pb). The patchiness of these results may be explained in part by the presence of a thin discontinuous veneer of glacials over the area. The best values obtained in the drill hole were 2m at 0.76% Zn, 0.05% Pb and 2m at 0.63% Zn and 0.13% Pb.

Calculations of the zinc number ($[\frac{Zn}{Zn+Pb}] \times 100$) from WSP1 assays resulted in a histogram plot strongly similar to the plot for Rosebery (see Figure 3). Following Ross Large's recent work on this parameter, this result can be interpreted as an indication that the weak mineralization in WSP1 is probably volcanogenic in origin.

2.3 Geophysics

Gradient array I.P. surveys obvained a 900 x 200 m^2 anomaly ($\geq$15 msec). The latter coincides with the southern part of the epiclastic unit (see Figure 2).

Although the UTEM survey obtained a number of weak superficial anomalies, no responses indicative of massive sulfide mineralization were obtained (Bishop, 1985).

2.4 Discussion

Positive features of this prospect are:

(1) The epiclastic sequence is probably a time equivalent of the Rosebery host horizon. In other volcanogenic massive sulfide districts (e.g. Kuroko, Abitibi), the deposits commonly occur along one or two distinct chronostratigraphic horizons.

(2) Only one drill hole has been completed to test this zone despite the fact that it is over 1 km long.

(3) The prospect lies on the north side of the Henty Fault. The only volcanogenic massive sulfide orebodies discovered to date in the Mt. Read Volcanics have been found north of this structure.

(4) There is significant sericitic alteration within and around the epiclastic sequence, which may represent footwall-style alteration peripheral to a buried massive sulfide body.

(5) The geochemical results were mildly encouraging, especially the zinc number calculations alluded to previously.

Negative features of the prospect are:

(1) The failure of WSP1 to obtain a massive sulfide intersection from the best part of the I.P. anomaly.

(2) The generally low level of sulfides and relative weakness of the alteration compared to that observed in the immediate vicinity of the Rosebery and Que River orebodies.

(3) The absence of a reasonable UTEM anomaly.

The UTEM results imply that any massive sulfide body concealed within this prospect must be either relatively small (maximum size around that of Que River) and buried beneath at least 100m of cover or larger and more deeply buried (>200m?). If the target orebody is moderately to deeply concealed beneath the surface then the negative features of this prospect can simply be explained away as being the result of only the periphery of the system being exposed. If the Hellyer orebody was tipped on its side and buried 100-200m beneath the surface, the alteration and mineralization on the surface in the vicinity of the host horizon would probably be weaker than that seen at White Spur. Consequently, given the extreme paucity of previous drilling on this prospect and its strongly prospective stratigraphic position further drilling is definitely warranted.

3. RECOMMENDATIONS

3.1 One diamond drill hole should be completed north of WSP1. The preferred position of this hole is half way to the E.L. boundary (i.e. 500m north of WSP1), however the presence of felsic and possible basic intrusives outcropping in this area may reflect larger masses of such intrusives at depth which would have displaced the prospective epiclastic horizon. Consequently a hole 350m north of WSP1 is recommended (Figures 2 and 4). This hole should pass south of the aforementioned intrusives and traverse the entire epiclastic sequence, intersecting the section beneath the (presumably sulfidic) zone anomalous in chargeability approximately 200m below the surface.

The hole collar shown on Figure 2 is near an old access track which can be readily upgraded to four wheel drive standard.

3.2 Both the new hole and WSP1 should be surveyed with downhole I.P. and E.M. The I.P. is recommended here, contrary to normal practice, because it is felt that if a massive sulfide intersection is not obtained in the proposed hole, the drill density on this highly prospective horizon will be so sparse that the maximum amount of information must be extracted from the two drillholes. In addition, it is always possible that the target orebody will be sphalerite-rich and copper-poor and therefore non-conductive (even to modern multi-frequency E.M. systems) but still strongly chargeable.

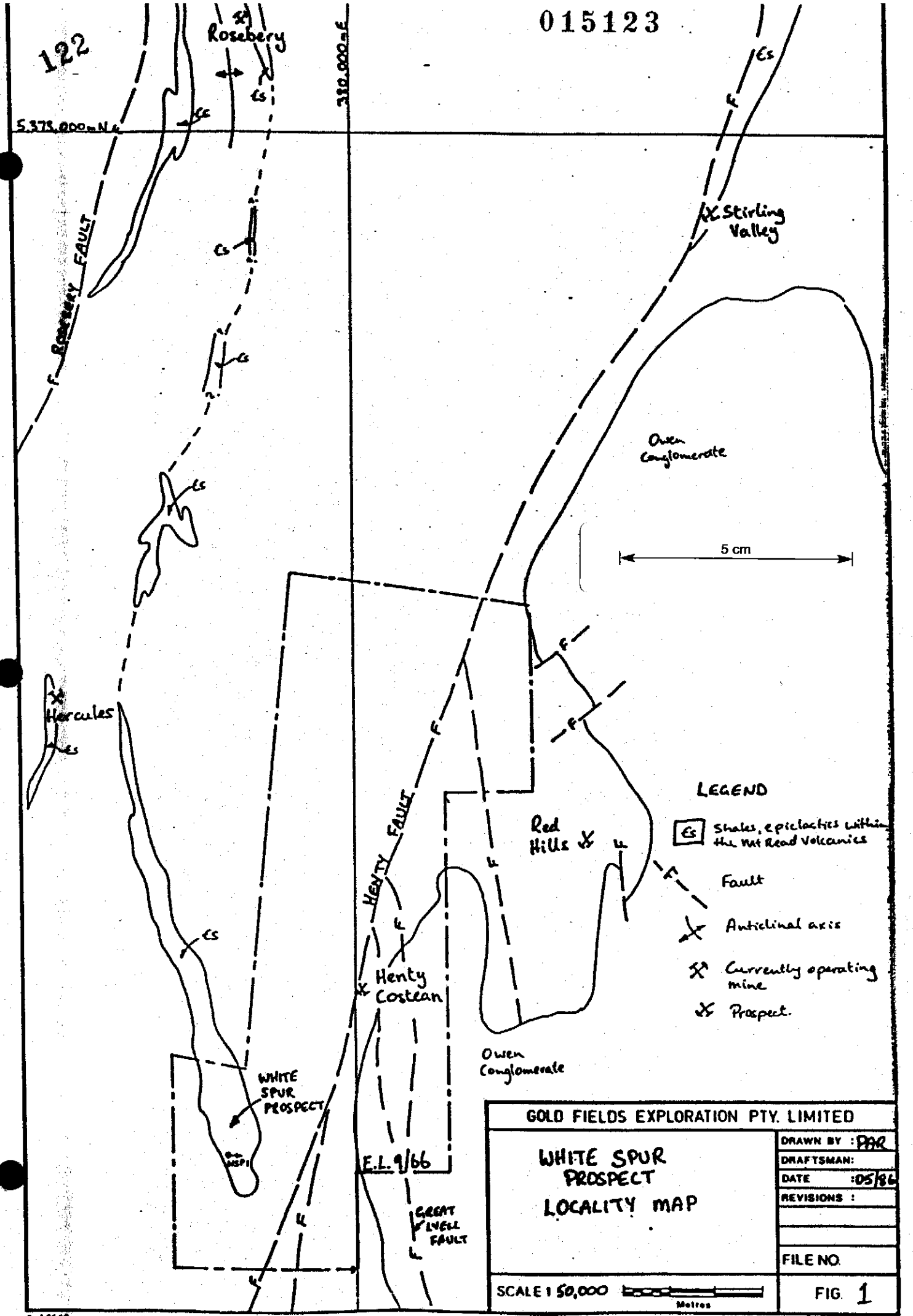
P.A. Roberts

Encl:

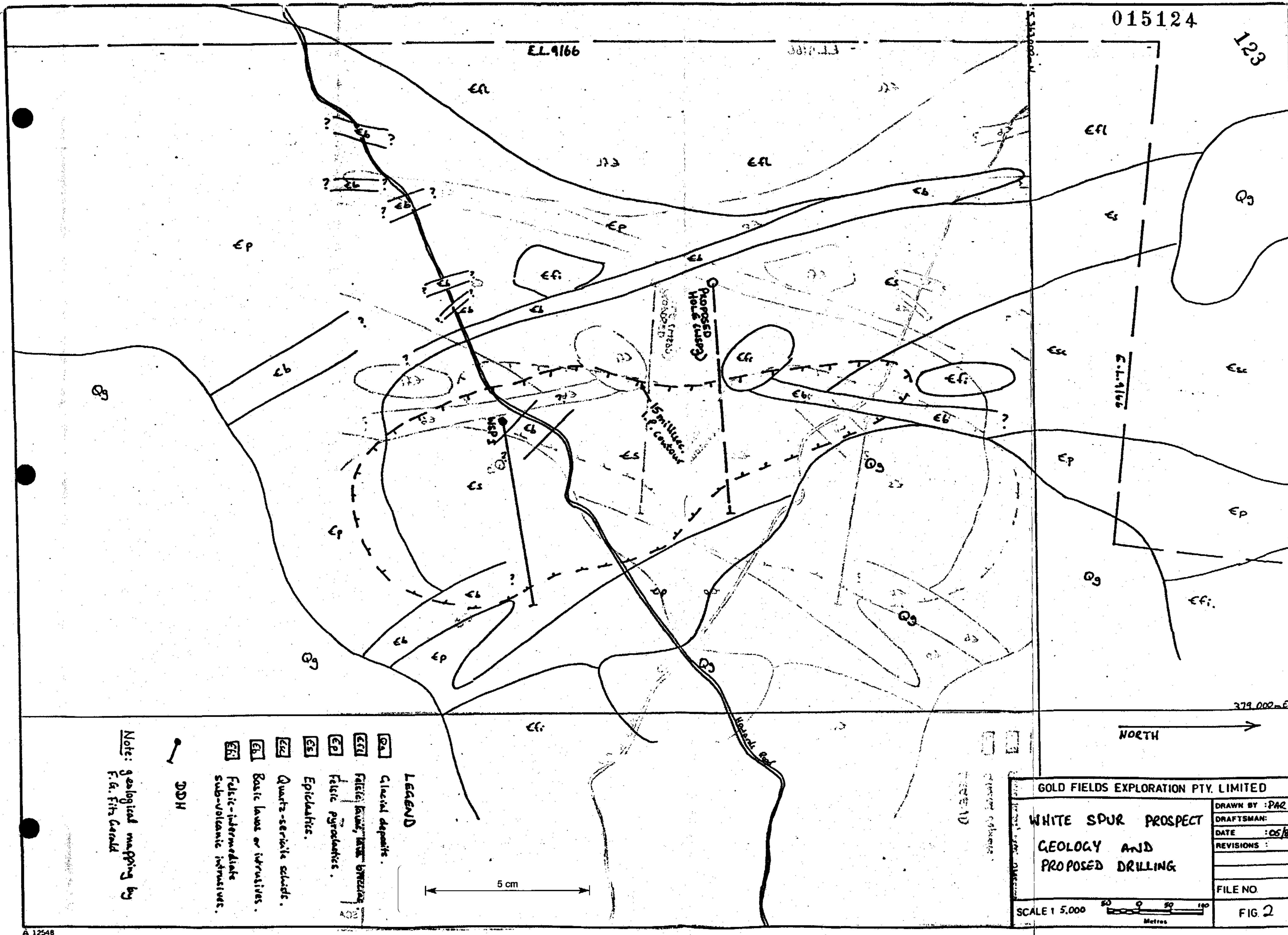
REFERENCES

Bishop, J.R., 1985: Interpretation of the White Spur UTEM Survey (E.L. 9/66), Mitre Geophysics Report GF/MG85/06. Appendix F in 1984/85 Annual Report for E.L.9/66.

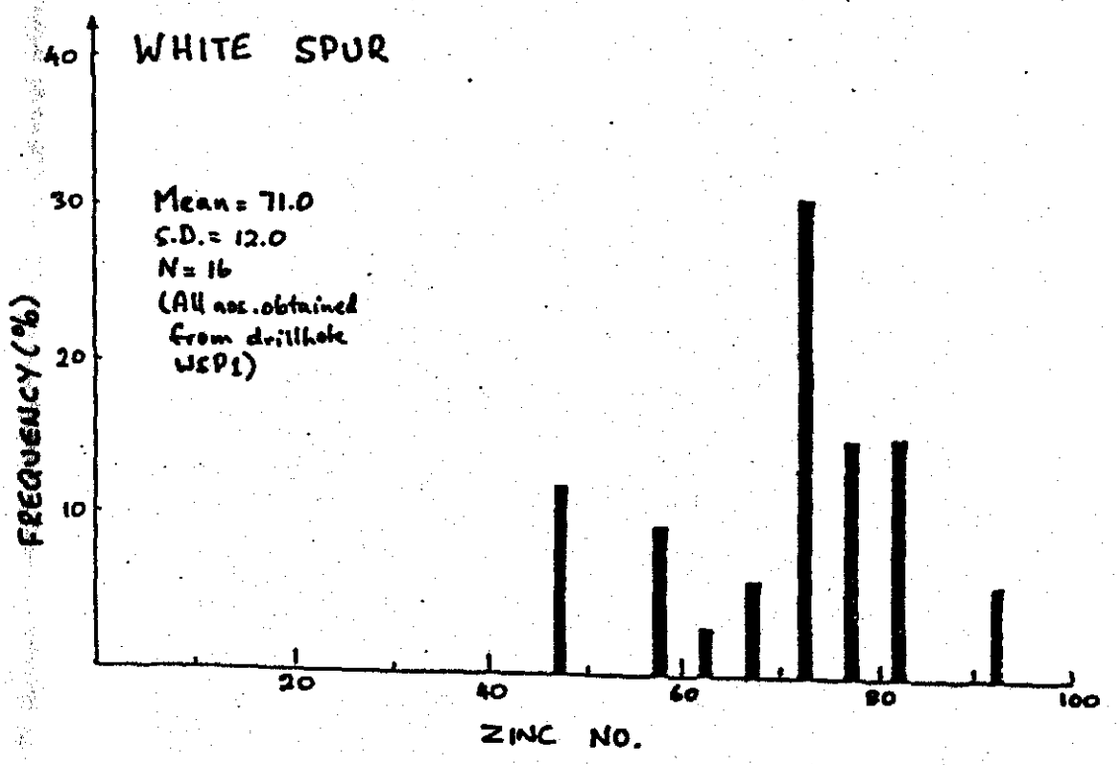
FitzGerald, F.G., 1984: E.L.9/66 Tyndall-Tasmania. Report of work conducted during period August 1983 to May 1984. Getty Oil Development Report Appendix VII in 1983/84 Annual Report for E.L.9/66.

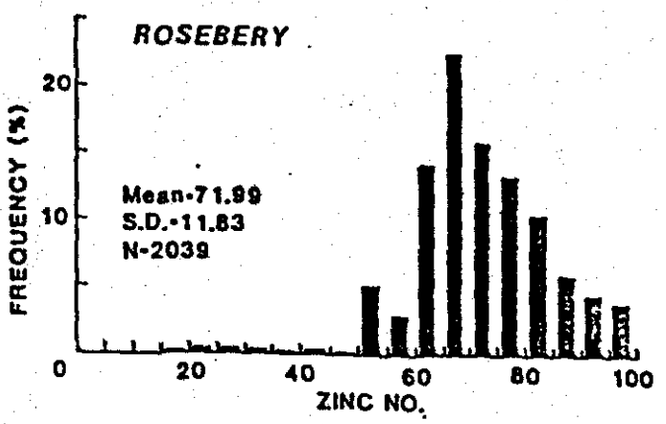

122
Rosebery
380,000mE
5,375,000mN
Cs
F
Rosebery FAULT
Stirling Valley
Owen Conglomerate
5 cm
Hercules
Henty FAULT
Red Hills
Henty Costean
WHITE SPUR PROSPECT
Owen Conglomerate
E.L. 9/86
GREAT LYELL FAULT
LEGEND
Shales, epiclastics within the Mt Read Volcanics
Fault
Anticlinal axis
Currently operating mine
Prospect.
GOLD FIELDS EXPLORATION PTY. LIMITED
WHITE SPUR PROSPECT
LOCALITY MAP
DRAWN BY : PAR
DRAFTSMAN:
DATE :05/86
REVISIONS :
FILE NO.
SCALE 1 50,000
Metres
FIG. 1

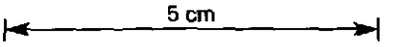
A 12548


015124
123
E.L.9166
NORTH
379 000mE
LEGEND
Qg Glacial deposits.
Efl Felsic lavas, tuffs, breccias.
Ep Felsic pyroclastics.
Es Epiclastics.
Esc Quartz-sericite schists.
Eb Basic lavas or intrusives.
Efi Felsic-intermediate sub-volcanic intrusives.
DDH
Note: geological mapping by F.G. FitzGerald
PROPOSED HOLE (WSP3)
WSP 2
15 millisec. I.P. contour
5 cm
GOLD FIELDS EXPLORATION PTY. LIMITED
WHITE SPUR PROSPECT
GEOLOGY AND PROPOSED DRILLING
DRAWN BY: PAR
DRAFTSMAN:
DATE: 05/86
REVISIONS:
FILE NO.
SCALE 1: 5,000
Metres
FIG. 2
A 12548

124







GOLD FIELDS EXPLORATION PTY. LIMITED

WHITE SPUR PROSPECT
ZINC No. ($[\frac{Zn}{Zn+Pb}]\times 100$)
HISTOGRAM

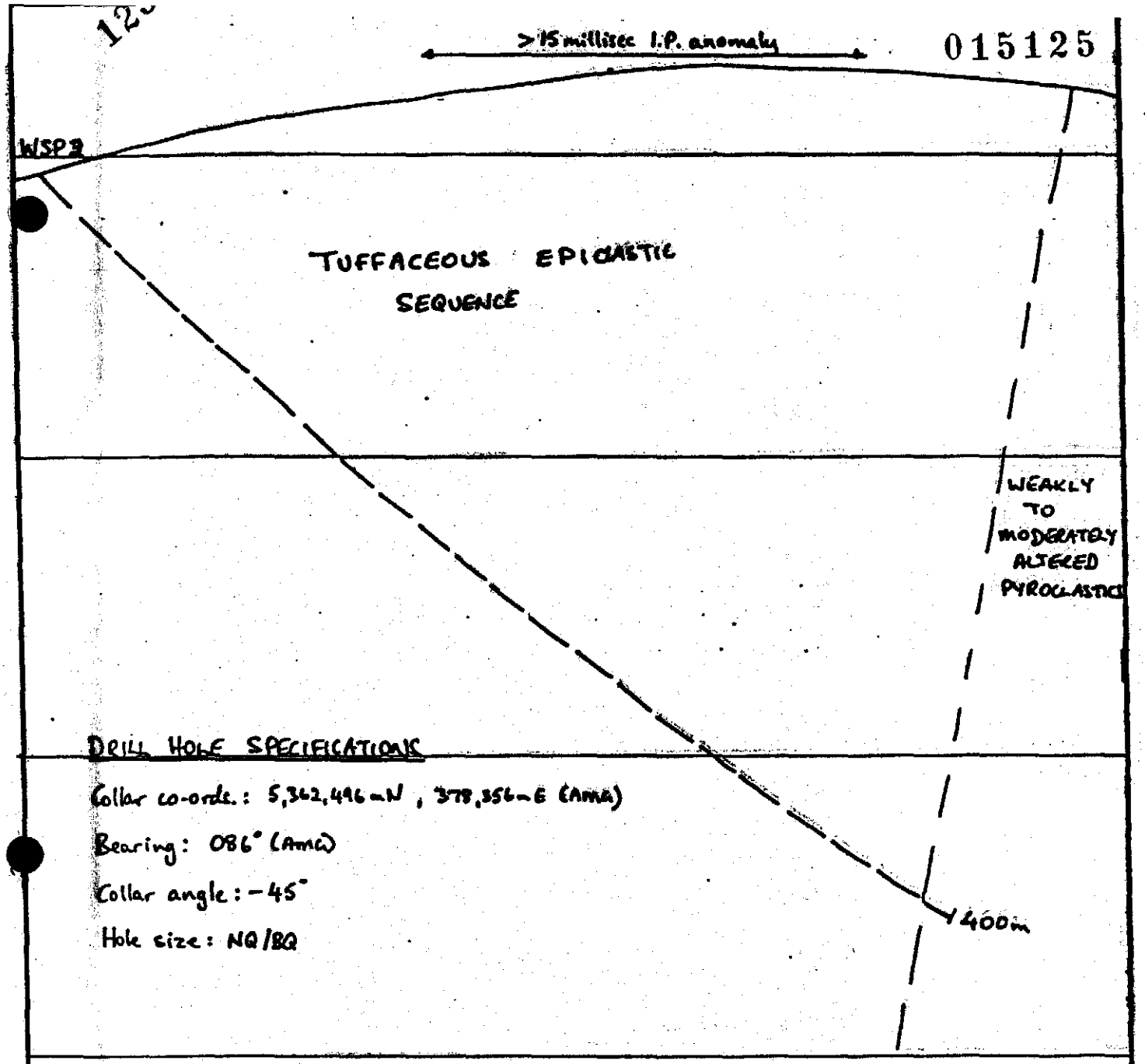
DRAWN BY : PAR
DRAFTSMAN:
DATE : 05/81
REVISIONS :

FILE NO.

SCALE 1 Metres

FIG. 3

A 12548



DRILL HOLE SPECIFICATIONS

Collar co-ords.: 5,342,496 mN, 378,356 mE (AMG)

Bearing: 086° (AMG)

Collar angle: −45°

Hole size: NQ/BQ

5 cm

GOLD FIELDS EXPLORATION PTY. LIMITED

WHITE SPUR PROSPECT

PROPOSED DRILL HOLE

DRAWN BY : PAR

DRAFTSMAN:

DATE : 05/86

REVISIONS :

FILE NO

SCALE 1:2000 20 0 20 40 Metres

FIG 4

A 12548

GOLD FIELDS EXPLORATION PTY. LIMITED

015126

E.L.9/66 - PART I

TYNDALL AREA, TASMANIA

ANNUAL REPORT, 1985/86

VOLUME 2 - FIGURES 3 TO 23

5807

LEGEND

UPPER CAMBRIAN—LOWER ORDOVICIAN

- €Ooc — OWEN CONGLOMERATE:— Hematitic siliceous conglomerates and sandstones
- €Oon — OWEN CONGLOMERATE: (Newton Creek Sandstone):—Non hematitic siliceous pebble conglomerate with abundant shales

CAMBRIAN — MT. READ VOLCANICS

TYNDALL GROUP

- €tj — JUKES BRECCIA:— Coarse volcaniclastic breccia
- €tl — LAVAS:—Quartz porphyry lava
- €tc — COMSTOCK TUFF:— Felsic tuffs and agglomerates with minor epiclastics

CENTRAL SEQUENCE

- €cf — FELSIC PYROCLASTICS:— Ignimbrites, tuffs and agglomerates cut by thin mafic dykes

- QUARTZ—SERICITE ZONE:— With minor pyrite
- PYRITIC ZONES:— Semi—massive and disseminated pyrite, sometimes with minor base metal sulphides
- FAULT; accurate and inferred
- LITHOLOGICAL CONTACT; known and inferred
- UNCONFORMABLE CONTACT
- INTRAFORMATIONAL CONTACT; inferred

5 cm

SHEET REFERENCE

015127

GOLD FIELDS EXPLORATION PTY LIMITED	
SHEET H8 HENTY PROJECT **INTERPRETATIVE GEOLOGY**	DRAWN BY C.P./A.C. DRAFTSMAN T.G.D.S. DATE June '86 REVISIONS FILE NO.
SCALE 1:2000 (40 30 20 0 40 80 METRES)	FIG. 3

82 SE 25 2/3

5808

LEGEND

UPPER CAMBRIAN–LOWER ORDOVICIAN

- €Ooc — OWEN CONGLOMERATE:– Hematitic siliceous conglomerates and sandstones
- €Oon — OWEN CONGLOMERATE: (Newton Creek Sandstone):–Non hematitic siliceous pebble conglomerate with abundant shales

CAMBRIAN – MT. READ VOLCANICS

TYNDALL GROUP

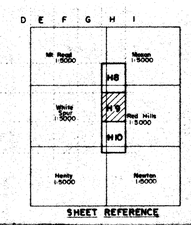
- €tj — JUKES BRECCIA:– Coarse volcaniclastic breccia
- €tl — LAVAS:–Quartz porphyry lava
- €tc — COMSTOCK TUFF:– Felsic tuffs and agglomerates with minor epiclastics

CENTRAL SEQUENCE

- €cf — FELSIC PYROCLASTICS:– Ignimbrites, tuffs and agglomerates cut by thin mafic dykes

- QUARTZ–SERICITE ZONE:– With minor pyrite
- PYRITIC ZONES:– Semi–massive and disseminated pyrite, sometimes with minor base metal sulphides
- FAULT; accurate and inferred
- LITHOLOGICAL CONTACT; known and inferred
- UNCONFORMABLE CONTACT
- INTRAFORMATIONAL CONTACT; inferred

5 cm



SHEET REFERENCE

015128

86-256 2/3

GOLD FIELDS EXPLORATION PTY. LIMITED	
SHEET H9 HENTY PROJECT INTERPRETATIVE GEOLOGY 5808	DRAWN BY C.P./A.C. DRAFTSMAN T.G.D.S. DATE June '86 REVISIONS FILE NO.
SCALE 1:2000 (40 30 0 40 80 METRES)	FIG. 4

5809

HENTY FAULT

MYLONITE ZONE

CRUSH ZONE

LYELL FAULT ?

GREAT

NORTH HENTY FAULT

SOUTH HENTY FAULT

BASELINE

INTER - HENTY FAULT SEQUENCE
(Dundas Group Equivalents ?)
Green and purple shales, minor conglomerates.

Mount Julia

MT 15 (586 25)

LEGEND

UPPER CAMBRIAN—LOWER ORDOVICIAN

- €Ooc — OWEN CONGLOMERATE: — Hematitic siliceous conglomerates and sandstones
- €Oon — OWEN CONGLOMERATE: (Newton Creek Sandstone): —Non hematitic siliceous pebble conglomerate with abundant shales

CAMBRIAN — MT. READ VOLCANICS

TYNDALL GROUP

- €tj — JUKES BRECCIA: — Coarse volcaniclastic breccia
- €tl — LAVAS: —Quartz porphyry lava
- €tc — COMSTOCK TUFF: — Felsic tuffs and agglomerates with minor epiclastics

CENTRAL SEQUENCE

- €cf — FELSIC PYROCLASTICS: — Ignimbrites, tuffs and agglomerates cut by thin mafic dykes

- QUARTZ—SERICITE ZONE: — With minor pyrite
- PYRITIC ZONES: — Semi—massive and disseminated pyrite, sometimes with minor base metal sulphides
- FAULT; accurate and inferred
- LITHOLOGICAL CONTACT; known and inferred
- UNCONFORMABLE CONTACT
- INTRAFORMATIONAL CONTACT; inferred

5 cm

D E F G H I

8 9 10 11

SHEET REFERENCE

5-25 2/3

015129

GOLD FIELDS EXPLORATION PTY. LIMITED

SHEET H10
HENTY PROJECT

INTERPRETATIVE GEOLOGY

5809

DRAWN BY	C.P./A.C.
DRAFTSMAN	T.G.D.S.
DATE	June '86
REVISIONS	
FILE NO.	
SCALE 1:2000	FIG. 5

GOLD FIELDS EXPLORATION PTY LIMITED

DRAWN BY : C.R
DRAFTSMAN: S.E
DATE : June.86
REVISIONS

SHEET H 8
HENTY PROJECT
SAMPLE NUMBERS

FILE NO. 5810

SCALE 1:2000
40 20 0 40 80 METRES

FIG 6

0151 30

LEGEND
Bedrock "Auger" Sample
Rock Chip Sample

SHEET REFERENCE

5 cm

86-2595

5810

GOLD FIELDS EXPLORATION PTY LIMITED

DRAWN BY C.P.

SHEET H 8

HENTY PROJECT

GOLD GEOCHEMISTRY

(ppm)

DRAFTSMAN S.F

DATE June, 86

REVISIONS

FILE NO. 5811

SCALE 1:2000

FIG 7

LEGEND

Bedrock "Wacker" Sample

Rock Chip Sample

SHEET REFERENCE

H1 H2 H3 H4 H5 H6 H7 H8 H9 H10

86-2565

2/3

0 1 2 3 4 5 6 7 8 9 10 11

5 cm

015131

5811

5812

179 600mE 80 000mE 80 400mE 80 800mE 81 200mE

53 67 500mN

53 67 100mN

53 66 700mN

53 66 300mN

53 65 900mN

53 65 500mN

65N 63N 60N 59N 58N 57N 56N

BASELINE

LEGEND

Bedrock "Wacker" Sample

Rock Chip Sample

5 cm

SHEET REFERENCE

015132

86-2565

2/3

GOLD FIELDS EXPLORATION PTY. LIMITED

SHEET H8

HENTY PROJECT

SILVER GEOCHEMISTRY

(ppm)

5812

DRAWN BY C.P.

DRAFTSMAN S.F.

DATE June,86

REVISIONS

FILE NO.

SCALE 1:2000

METRES

FIG. 8

GOLD FIELDS EXPLORATION PTY LIMITED

DRAWN BY C.R

DRAFTSMAN S.F

DATE June.86

REVISIONS

SHEET H 8

HENTY PROJECT

COPPER GEOCHEMISTRY

(p.p.m.)

FILE NO. 5813

SCALE 1:2000

FIG. 9

0151133

SHEET REFERENCE

LEGEND

Bedrock "Wacker" Sample

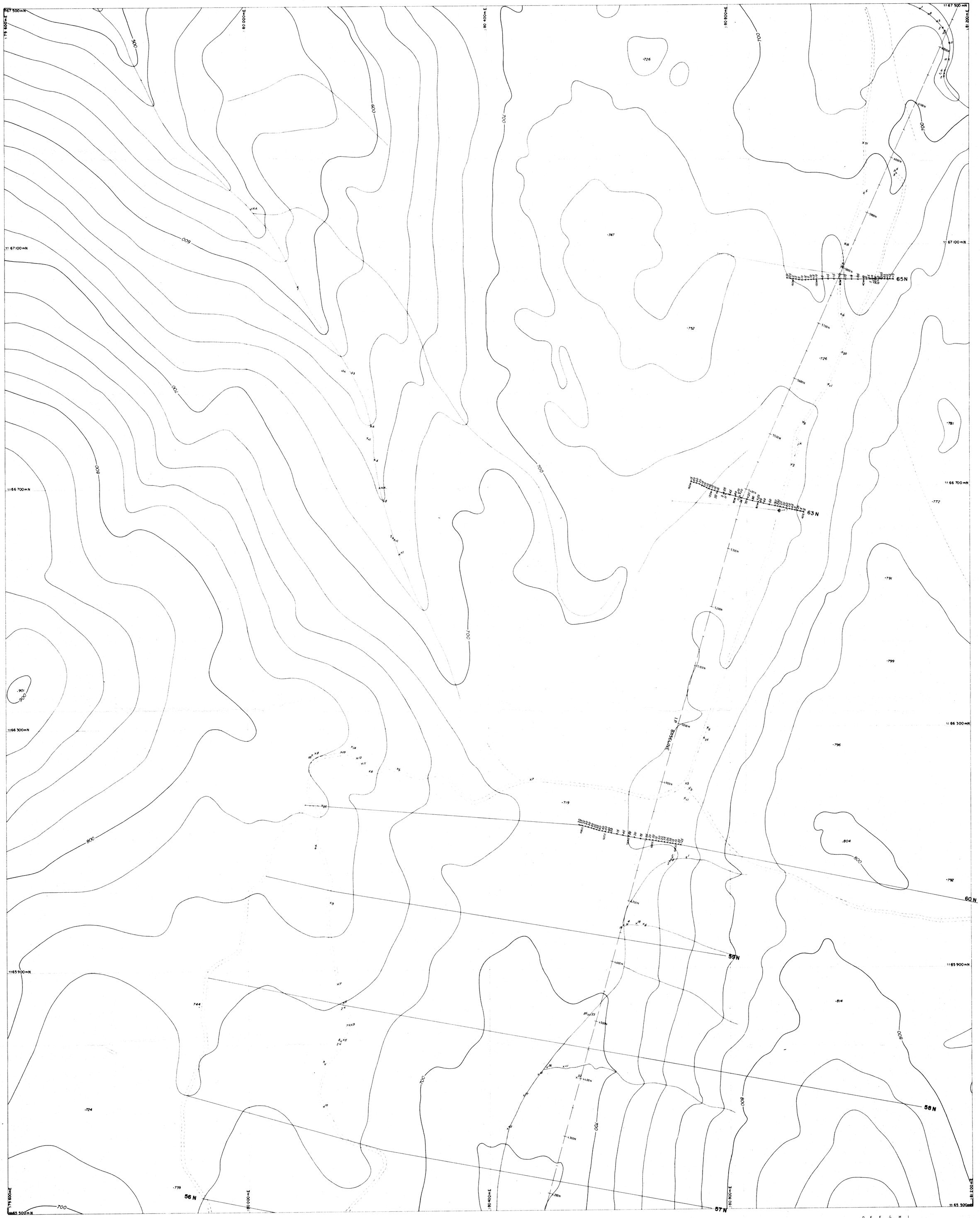
Rock Chip Sample

5 cm

8 3 5 6 5

5813

5814

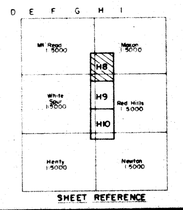


LEGEND

Bedrock "Wacker" Sample

Rock Chip Sample

5 cm



SHEET REFERENCE

C15134

GOLD FIELDS EXPLORATION PTY LIMITED

SHEET H8

HENTY PROJECT

LEAD GEOCHEMISTRY

(ppm)

DRAWN BY C.P.

DRAFTSMAN S.F

DATE June,86

REVISIONS

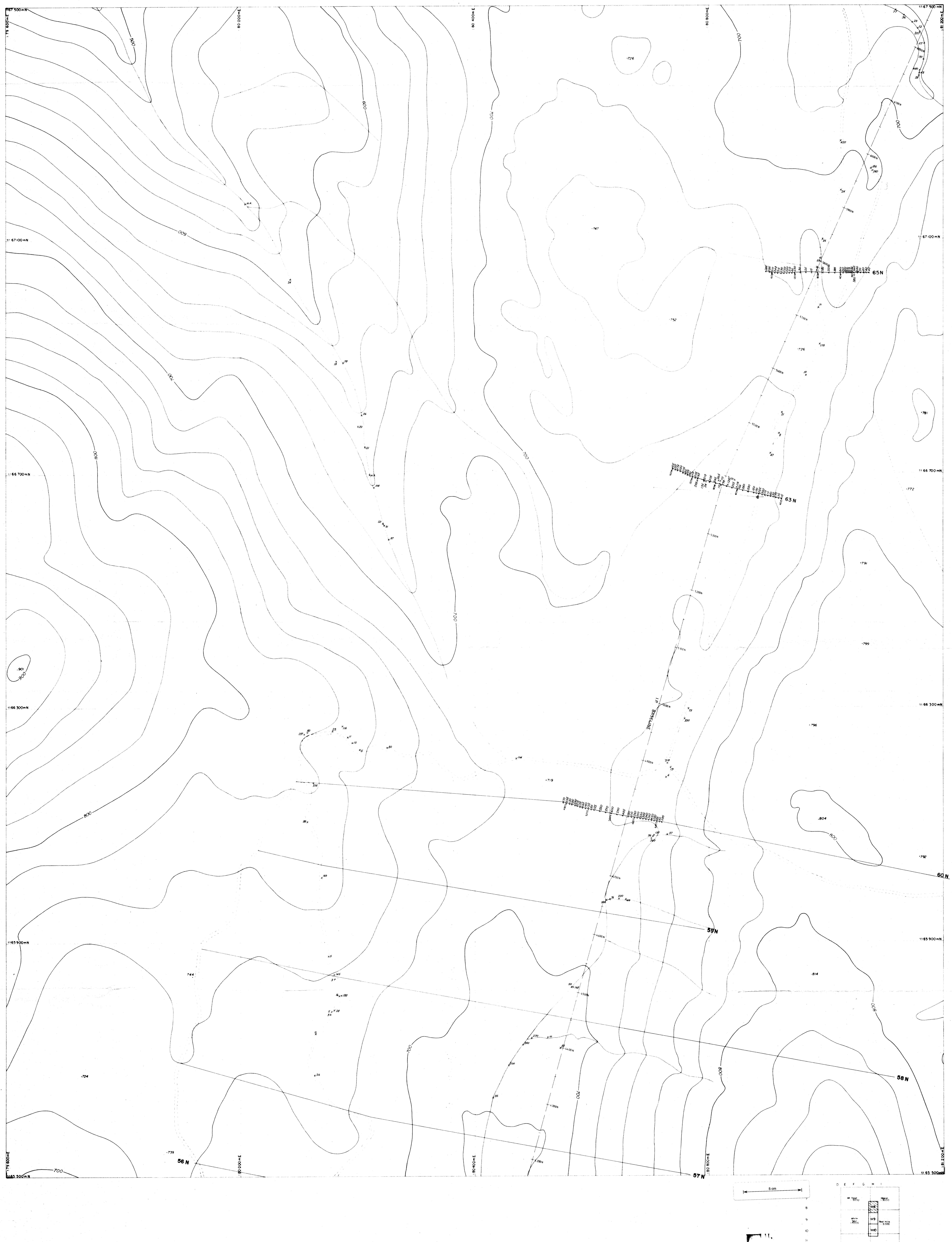
FILE NO. 5814

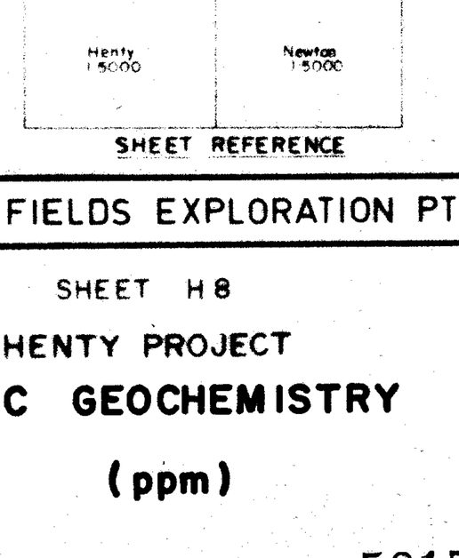
SCALE 1:2000

FIG. 10

36-25-5

5815





5 cm

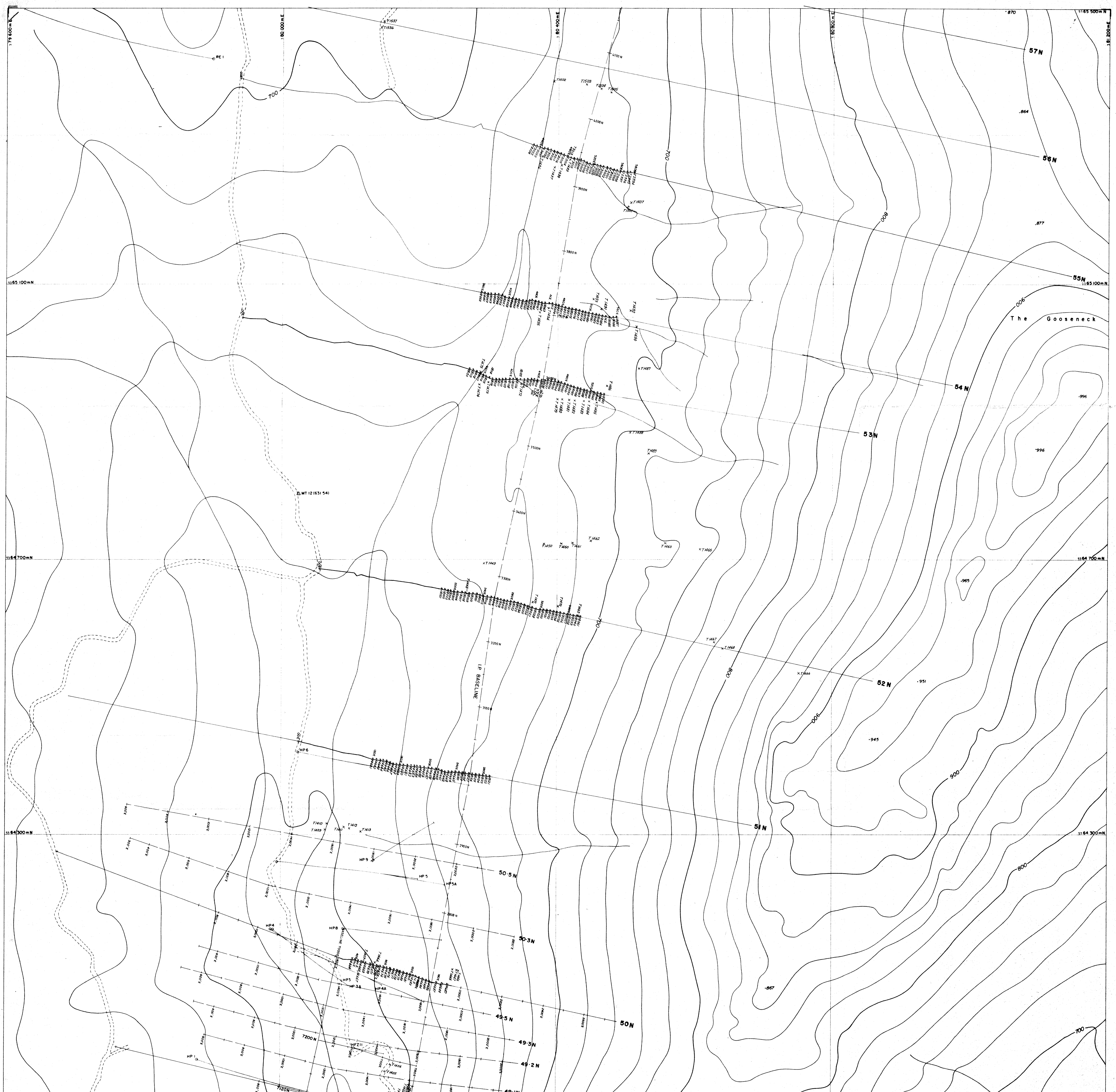
015135

8C 2555 2/3

LEGEND
Bedrock "Wacker" Sample
Rock Chip Sample

GOLD FIELDS EXPLORATION PTY LIMITED	
SHEET H8	DRAWN BY C.P.
HENTY PROJECT	DRAFTSMAN S.F.
ZINC GEOCHEMISTRY	DATE June,86
(ppm)	REVISIONS
5815	FILE NO.
SCALE 1:2000 (40 20 0 40 80 METRES)	FIG. 11

5816



5 cm

SHEET REFERENCE

015136

8C - 2565

LEGEND
Bedrock "Wacker" Sample
Rock Chip Sample

GOLD FIELDS EXPLORATION PTY. LIMITED

SHEET H9
HENTY PROJECT
SAMPLE NUMBERS

DRAWN BY C.P.
DRAFTSMAN S.F.
DATE June, 8
REVISIONS :

5816

FILE NO.

SCALE 1:2000 METRES

FIG.12

GOLD FIELDS EXPLORATION PTY. LIMITED

DRAWN BY : C.R
DRAFTSMAN: S.F./E.V.
DATE : July, 85
REVISIONS :

SHEET H9
HENTY PROJECT
GOLD GEOCHEMISTRY
(g/t)

FILE NO. 5817

SCALE 1:2000

FIG13

8C 2565
2/3

0151137

SHEET REFERENCE

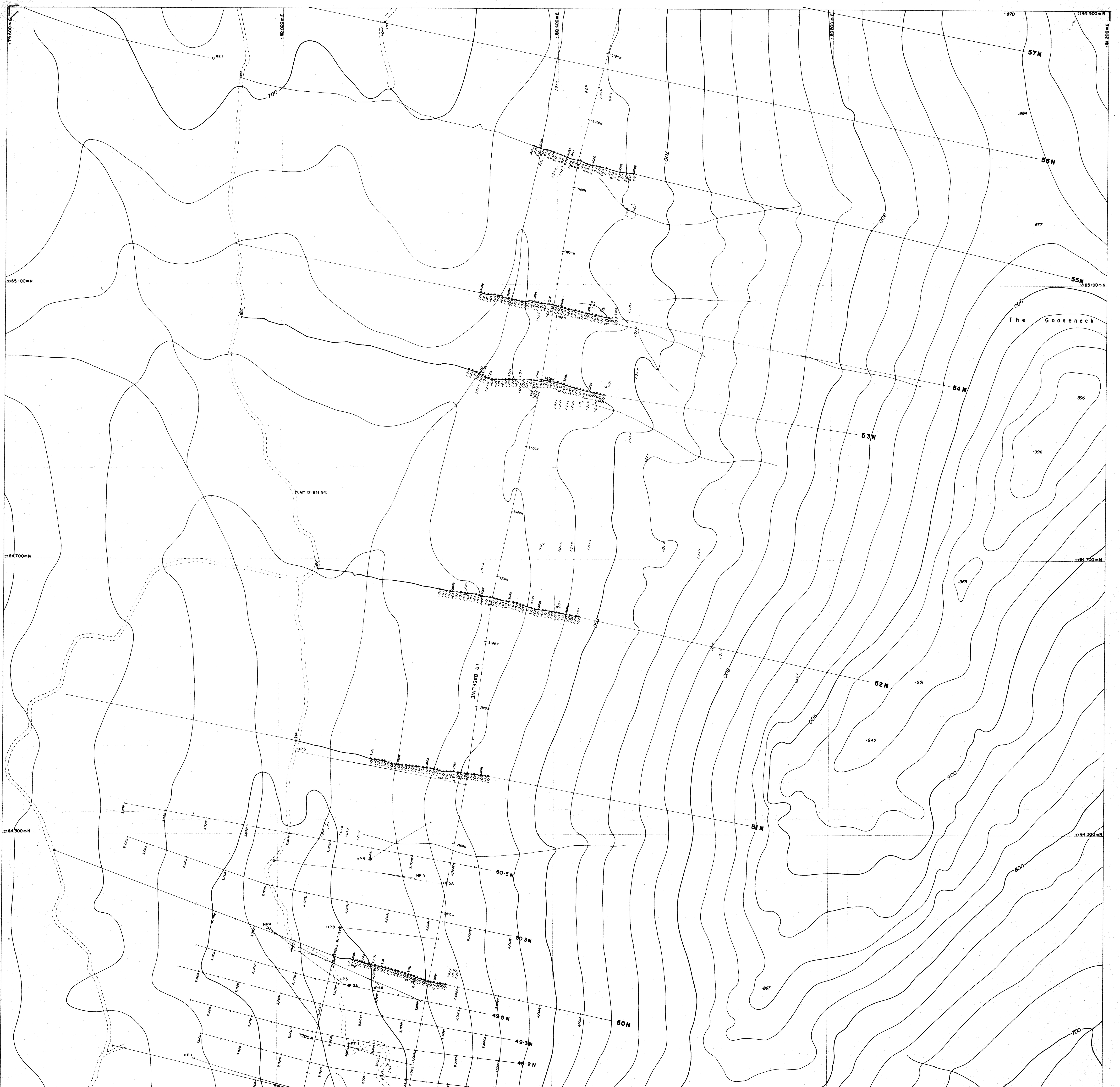
LEGEND
Bedrock "Wocket" Sample
Rock Chip Sample

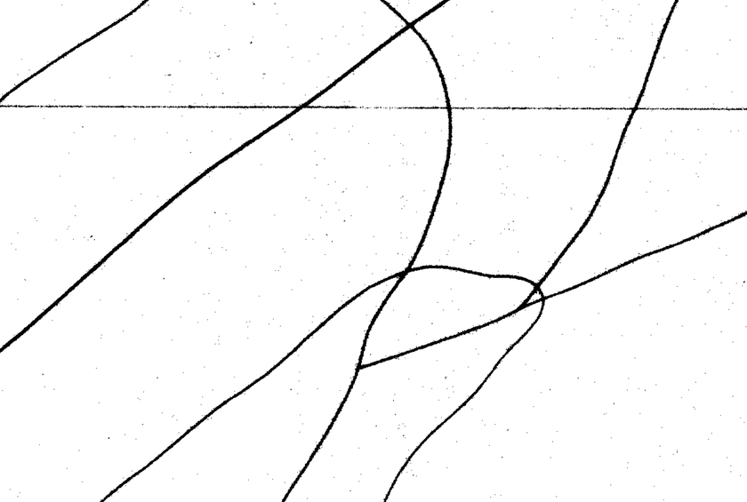
5 cm

Gooseneck

I.P. BASELINE

Δ MT 12 (631 54)





SHEET REFERENCE

015138

LEGEND
Bedrock "Wacker" Sample
Rock Chip Sample

36-2565 2/3

GOLD FIELDS EXPLORATION PTY. LIMITED	
SHEET H9 HENTY PROJECT **SILVER GEOCHEMISTRY** **(g/t)** 5818	DRAWN BY : C.P. DRAFTSMAN : S.F./E.V. DATE : July, 85 REVISIONS : FILE NO.
SCALE 1:2000 (40 20 0 40 80 METRES)	FIG. 14

5819

GOLD FIELDS EXPLORATION PTY. LIMITED

SHEET H9

HENTY PROJECT

COPPER GEOCHEMISTRY

(p.p.m.)

5819

DRAWN BY : C.P.

DRAFTSMAN: S.F./E.V.

DATE : July, 85

REVISIONS :

FILE NO.

SCALE 1:2000 (40 30 20 10 0 10 40 METRES)

FIG. 15

LEGEND

Bedrock "Wacker" Sample

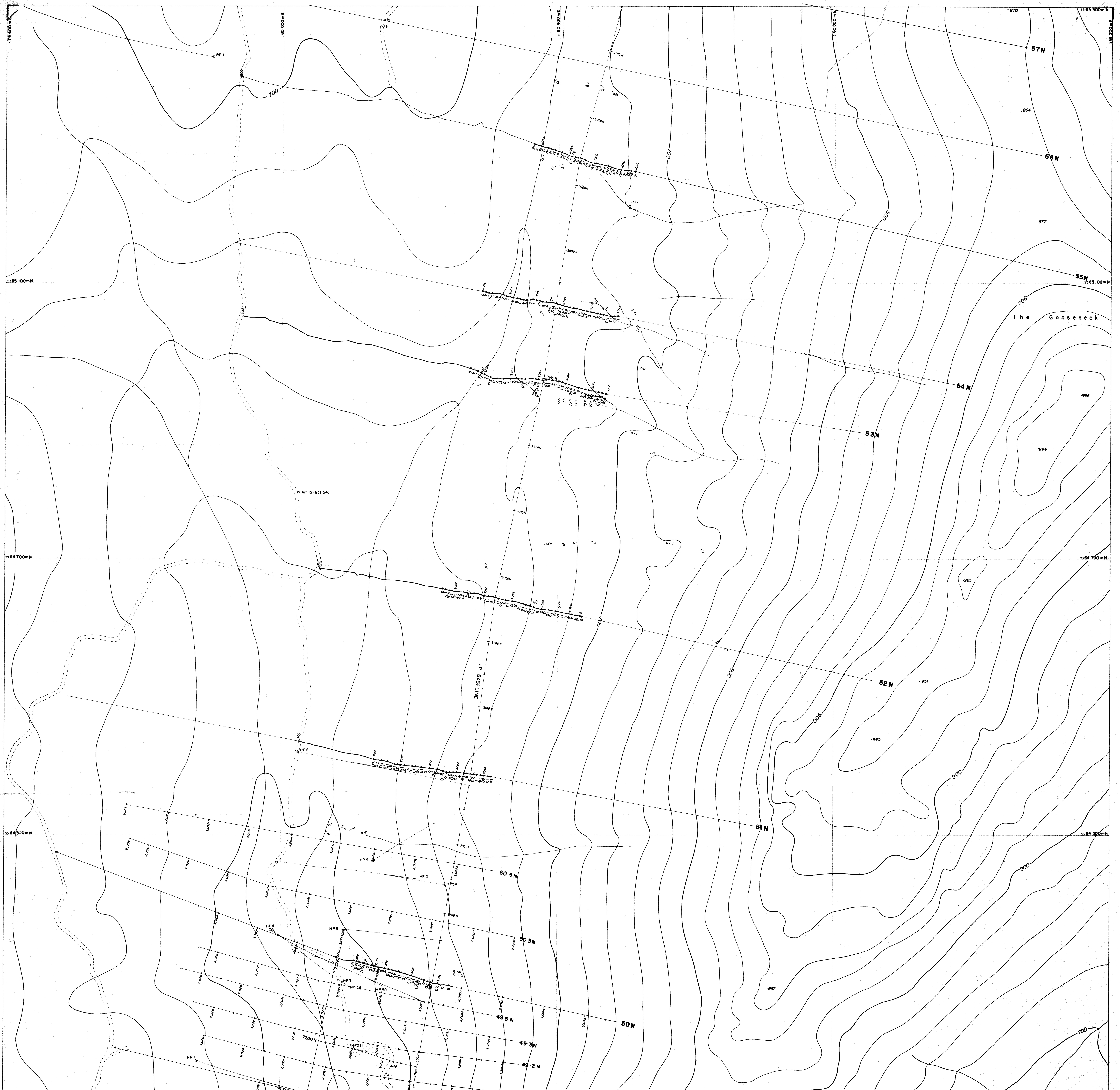
Rock Chip Sample

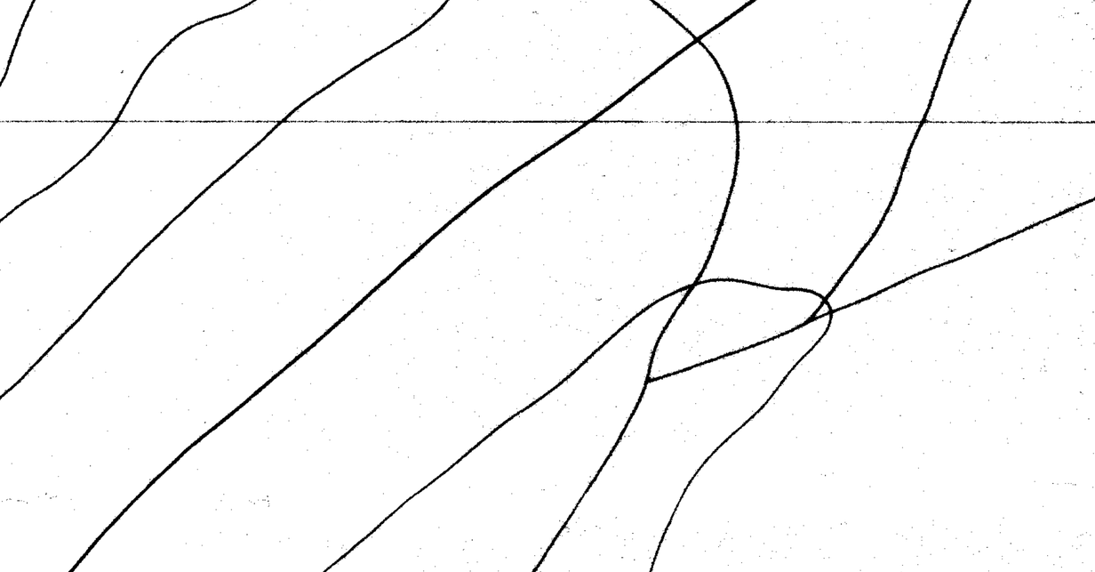
8C-256 2/3

015139

SHEET REFERENCE

5820





015140

LEGEND
Bedrock "Wocker" Sample
Rock Chip Sample

6C 2565 2/3

GOLD FIELDS EXPLORATION PTY. LIMITED	
SHEET H9	DRAWN BY : C.P.
HENTY PROJECT	DRAFTSMAN : S.F./E.V.
LEAD GEOCHEMISTRY	DATE : July, 85
(p.p.m.)	REVISIONS :
5820	FILE NO.
SCALE 1:2000 (METRES 40 20 0 40 80)	FIG 16

5821

HENTY PROJECT
ZINC GEOCHEMISTRY (p.p.m.)

GOLD FIELDS EXPLORATION PTY. LIMITED

SHEET H9

SCALE 1:2000 (40 20 0 40 80 METRES)

FIG. 17

DRAWN BY :
DRAFTSMAN :
DATE :
REVISIONS :
FILE NO. 5821

LEGEND
Bedrock "Wacker" Sample
Rock Chip Sample

5 cm

SHEET REFERENCE
H8 Mason 1:5000 · White Rock 1:5000 · H9 · Red Hills 1:5000 · H10 · Henty 1:5000 · Riverton 1:5000

80-2565
2/3

015141

5822

179 600mE 180 000mE 180 400mE 180 800mE 181 200mE

53 63 500mN

53 63 100mN

53 62 700mN

53 62 300mN

53 61 900mN

53 61 500mN

HFZ 12 HFZ 3 HFZ 4 HFZ 7 HFZ 8

46N 45N 44N 43N

1900N 1700N 1500N 1400N 1300N 1200N 1100N 1000N 900N 800N 700N 600N 500N 400N

BASELINE

MT 15 (586 25)

Mount Julia

LEGEND

Bedrock "Wacker" Sample

Rock Chip Sample

5 cm

SHEET REFERENCE

H8 H9 H10

80-2565

C15142

GOLD FIELDS EXPLORATION PTY. LIMITED

SHEET H10

HENTY PROJECT

SAMPLE NUMBERS

5822

DRAWN BY : C.P.

DRAFTSMAN : S.F./E.V.

DATE July, 86

REVISIONS :

FILE NO.

SCALE 1:2000 40 20 0 40 80 METRES

FIG.18

5823

179 600mE 180 000mE 180 400mE 180 800mE 181 200mE

53 63 500mN

53 63 100mN

53 62 700mN

53 62 300mN

53 61 900mN

53 61 500mN

HFZ 12 HFZ 3 HFZ 4 HFZ 7 HFZ 8

46N 45N 44N 43N

1700N 1600N 1500N 1400N 1300N 1200N 1100N 1000N 900N 800N 700N 600N 500N 400N

BASELINE

MT 15 (586.25)

Mount Julia

LEGEND

Bedrock "Wacker" Sample

Rock Chip Sample

5 cm

SHEET REFERENCE

015143

GOLD FIELDS EXPLORATION PTY. LIMITED

SHEET H10

HENTY PROJECT

GOLD GEOCHEMISTRY

(g/t)

5823

DRAWN BY : C.P

DRAFTSMAN : S.F./E.V.

DATE : July, 85

REVISIONS :

FILE NO.

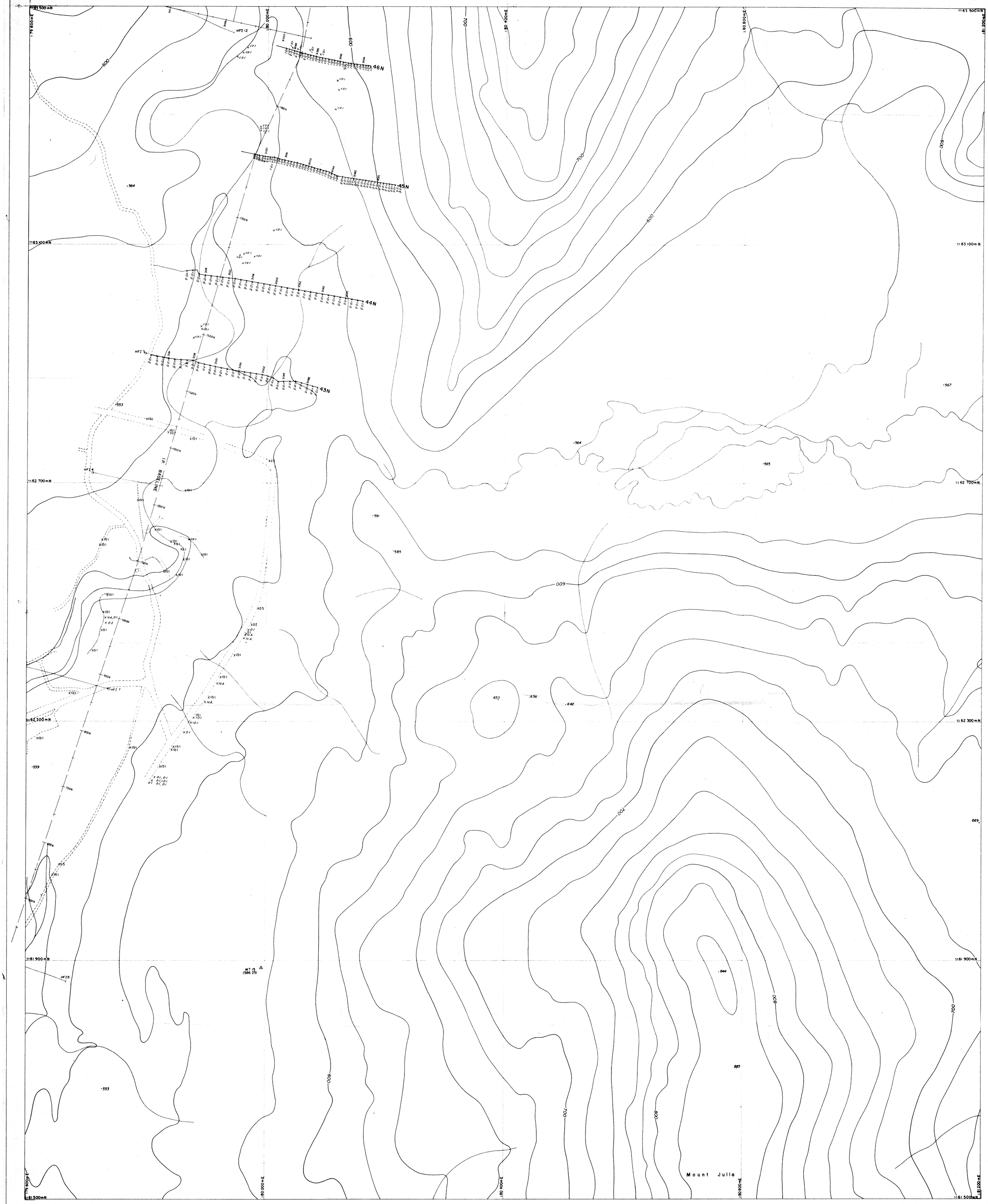
SCALE 1:2000

METRES

FIG. 19

83 2561

5824



LEGEND

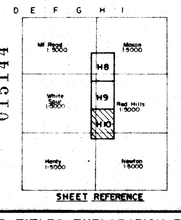
Bedrock "Wocker" Sample

Rock Chip Sample

5 cm

8
9
10
11

D E F G H I



SHEET REFERENCE

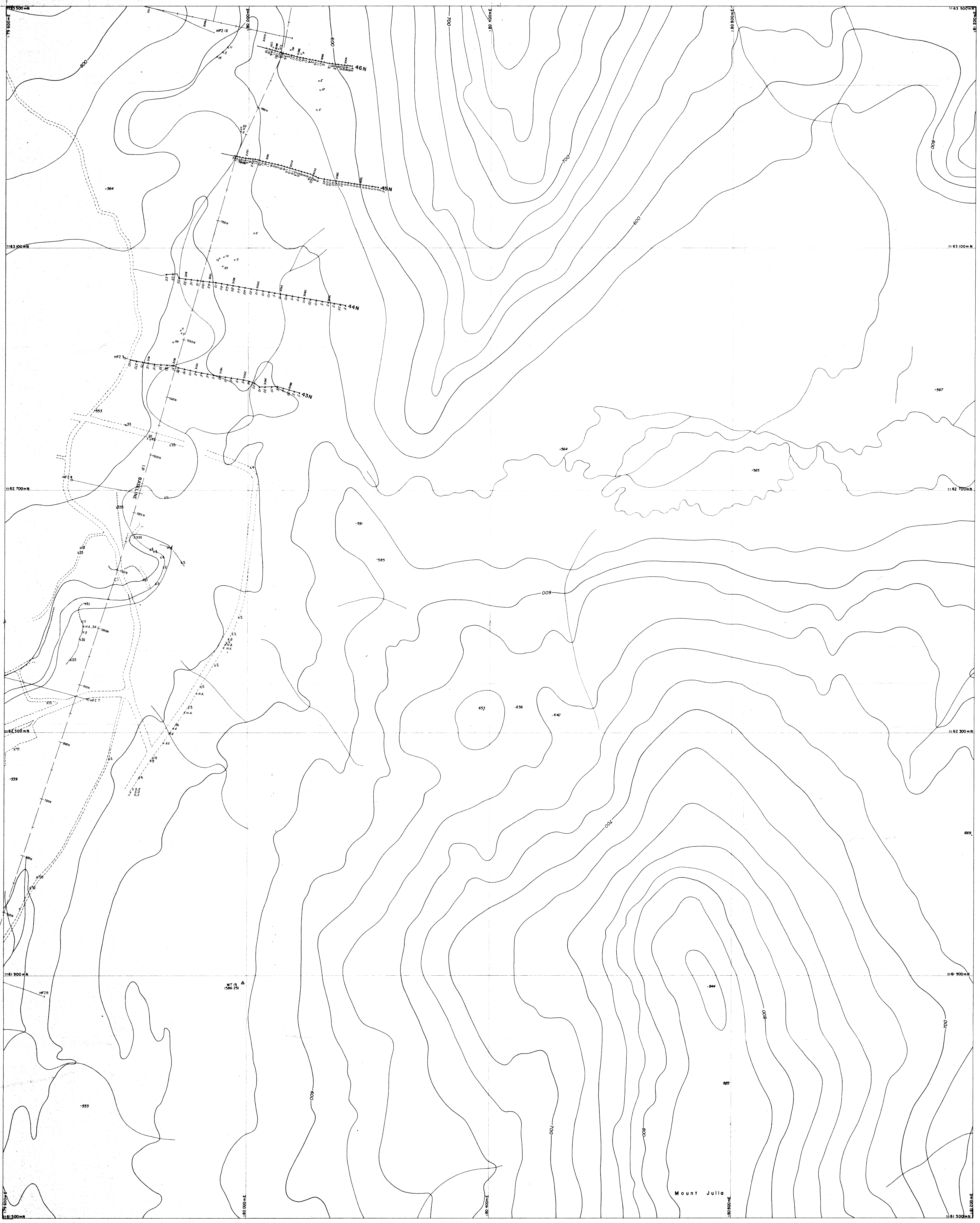
015144

86-2565

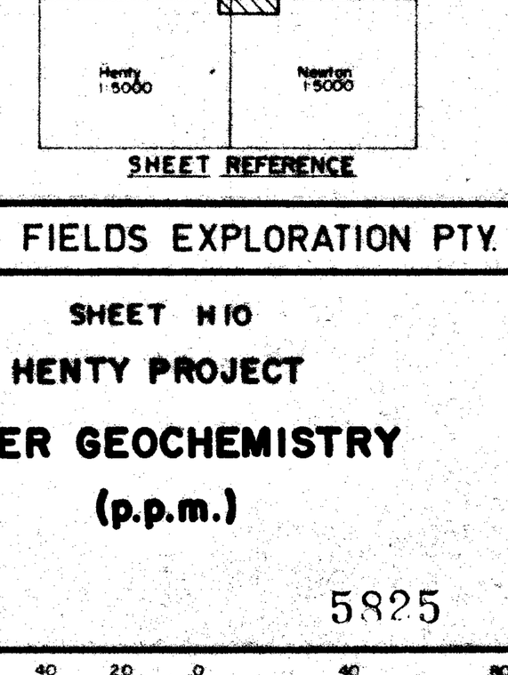
213

GOLD FIELDS EXPLORATION PTY. LIMITED	
SHEET H10 HENTY PROJECT SILVER GEOCHEMISTRY (g/t) 5824	DRAWN BY : C.P DRAFTSMAN: S.F./E.V. DATE : July, 85 REVISIONS : FILE NO.
SCALE 1:2000 40 20 0 40 80 METRES	FIG. 20

5825



5 cm



SHEET REFERENCE

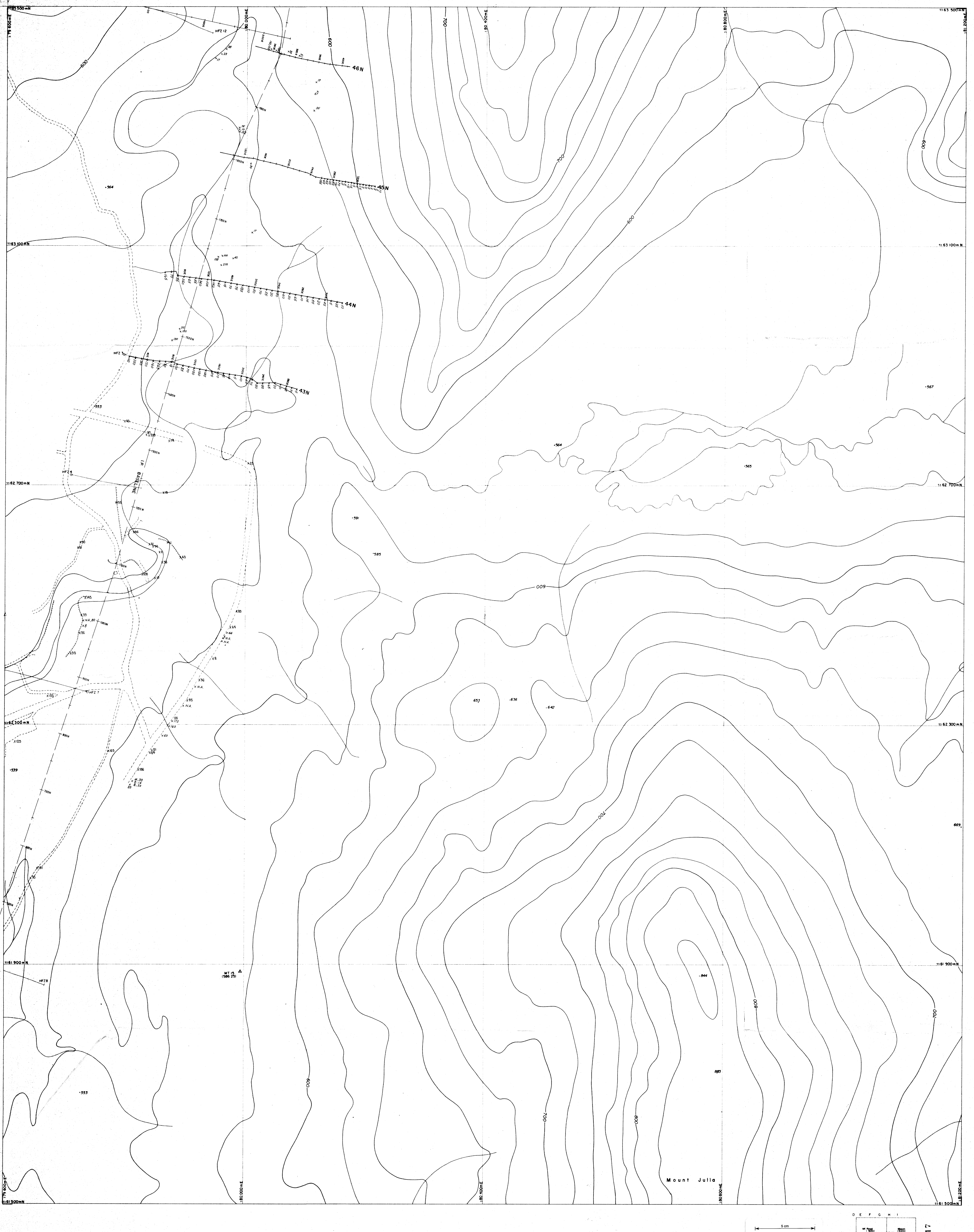
615145

LEGEND
Bedrock "Wacker" Sample
Rock Chip Sample

GOLD FIELDS EXPLORATION PTY. LIMITED	
SHEET H10 HENTY PROJECT COPPER GEOCHEMISTRY (p.p.m.) 5825	DRAWN BY: C.P. DRAFTSMAN: S.F./E.V. DATE: July,85 REVISIONS: FILE NO.
SCALE 1:2000 — 40 20 0 40 80 METRES	FIG 21

5826

53 63 500mN
179 600mE
180 000mE
180 400mE
180 800mE
181 200mE
53 63 100mN
53 62 700mN
53 62 300mN
53 61 900mN
53 61 500mN
46N
45N
44N
43N
HFZ 12
HFZ 1
HFZ 4
HFZ 7
HFZ 8
BASELINE
1900N
1700N
1500N
1400N
1300N
1200N
1100N
1000N
900N
800N
700N
600N
MT 15
(586 25)
Mount Julia
5 cm
SHEET REFERENCE
H8
H9
H10
C15146
GOLD FIELDS EXPLORATION PTY. LIMITED
SHEET H10
HENTY PROJECT
LEAD GEOCHEMISTRY
(p.p.m.)
5826
DRAWN BY : C.P.
DRAFTSMAN : S.F./E.V.
DATE : July, 85
REVISIONS :
FILE NO.
SCALE 1:2000
METRES
FIG. 22
LEGEND
Bedrock "Wacker" Sample
Rock Chip Sample
256
213



5 cm

SHEET REFERENCE

Mt Read 1:5000	H8	Mason 1:5000
White Spur 1:5000	H9 / H10	Red Hills 1:5000
Henty 1:5000		Newton 1:5000

015147

LEGEND
Bedrock "Wacker" Sample
Rock Chip Sample

86-2565 2/3

GOLD FIELDS EXPLORATION PTY. LIMITED

SHEET H10
HENTY PROJECT
ZINC GEOCHEMISTRY
(p.p.m.)

5827

DRAWN BY	C.P.
DRAFTSMAN	S.F./E.V.
DATE	July, 85
REVISIONS	
FILE NO.	

SCALE 1:2000 — METRES 40 20 0 40 80

FIG. 23

GOLD FIELDS EXPLORATION PTY. LIMITED

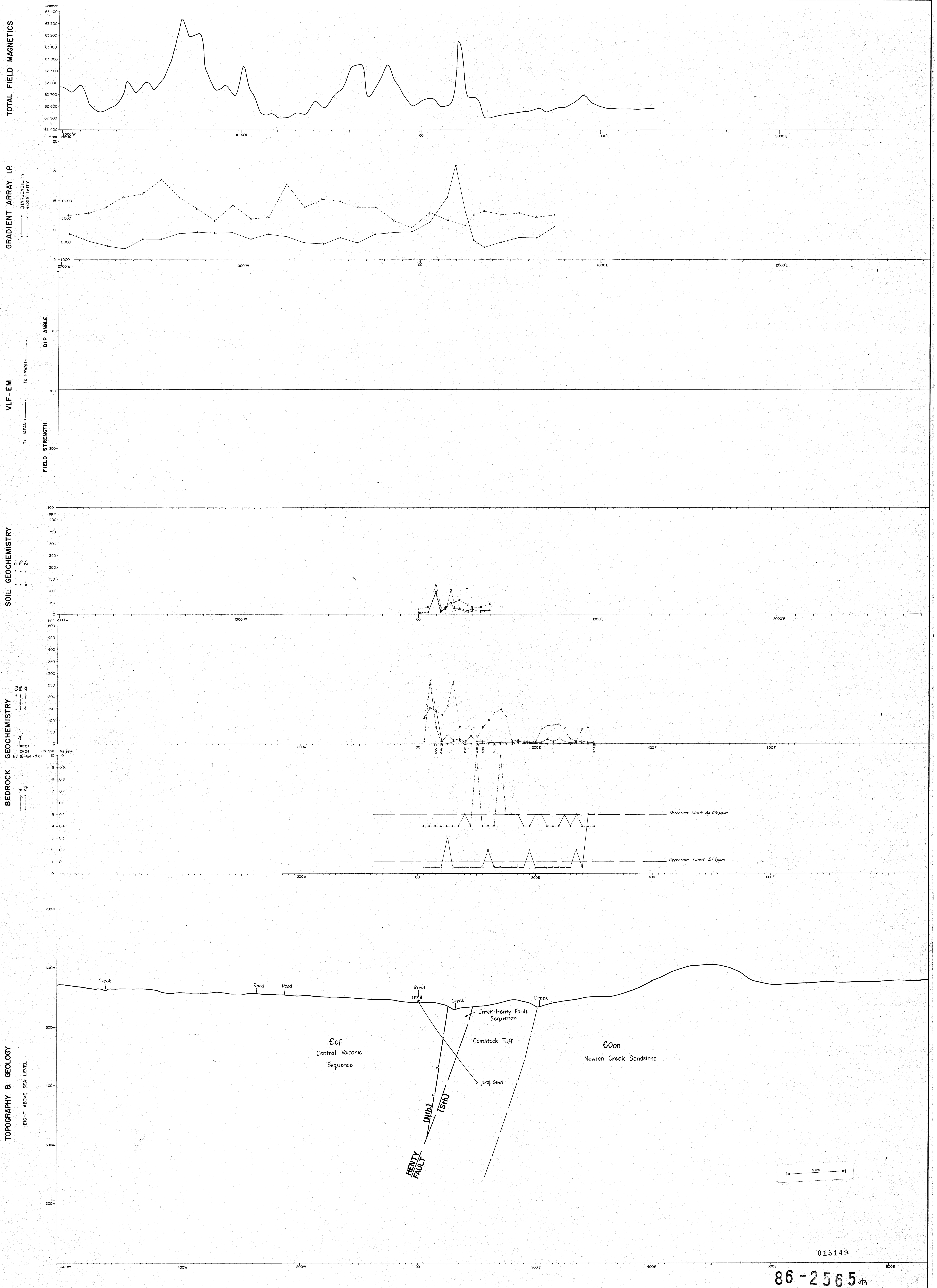
015148

E.L.9/66 - PART I

TYNDALL AREA, TASMANIA

ANNUAL REPORT, 1985/86

VOLUME 3 - FIGURES 24 TO 46



5828

015149

86-2565 3/3

GOLD FIELDS EXPLORATION PTY LIMITED

E.L. 9/66 – TYNDALL PROJECT

HENTY GRID

LINE 43N

LOOKING NORTH 5828

SCALE 1:2000 — 40 20 0 20 40 60 80 METRES

DRAWN BY	C.F.D.P.
DRAFTSMAN	S.F.
DATE	July, 1985
REVISIONS	
FILE NO.	
FIG.	24

5829

TOTAL FIELD MAGNETICS

Gammas
63 400
63 300
63 200
63 100
63 000
62 900
62 800
62 700
62 600
62 500
62 400

1000'W 00 1000'E 2000'E 3000'E

GRADIENT ARRAY I.P.

CHARGEABILITY
RESISTIVITY

msec ohm m
25
20
15 10'000
5000
10
2000
5 1000

1000'W 00 1000'E 2000'E 3000'E

VLF-EM

Tx JAPAN
Tx HAWAII

DIP ANGLE
0

FIELD STRENGTH
300
200
100

SOIL GEOCHEMISTRY

Cu
Pb
Zn

ppm
400
350
300
250
200
150
100
50
0

1000'W 00 1000'E 2000'E 3000'E

BEDROCK GEOCHEMISTRY

Cu
Pb
Zn

Au
■ >0·1
× <0·1
No Symbol = <0·01

Bi ppm
Ag ppm

500
450
400
350
300
250
200
150
100
50
0

10 1·0
9 0·9
8 0·8
7 0·7
6 0·6
5 0·5
4 0·4
3 0·3
2 0·2
1 0·1
0

Bi
Ag

200W 00 200E 400E 600E

Detection Limit Ag 0·5ppm

Detection Limit Bi 1ppm

TOPOGRAPHY & GEOLOGY

HEIGHT ABOVE SEA LEVEL

800m
700m
600m
500m
400m
300m

Road
Creek
Creek

Inter-Henty Fault Sequence

€cf
Central Volcanic Sequence

€tc
Comstock Tuff

€Oon
Newton Creek Sandstone

FAULT
HENTY

5 cm

400W 200W 00 200E 400E 600E 800E

015150

86-2565 3/3

GOLD FIELDS EXPLORATION PTY LIMITED

E.L.9/66 – TYNDALL PROJECT

HENTY GRID

LINE 44N

LOOKING NORTH

5829

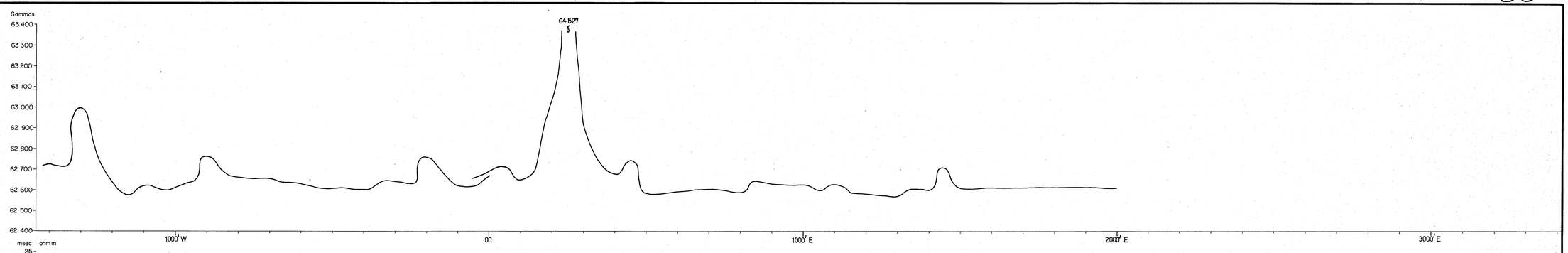
SCALE 1:2000 40 20 0 20 40 60 80 METRES

DRAWN BY C.F.D.P
DRAFTSMAN S.F
DATE July, 1985
REVISIONS
FILE NO.

FIG 25

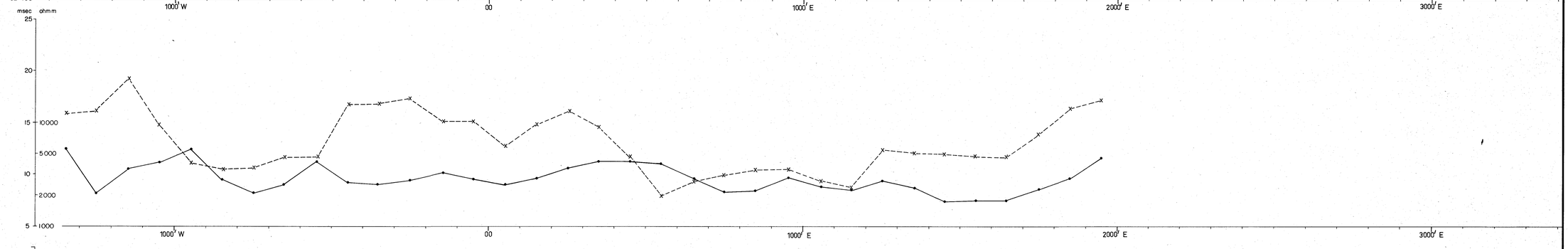
5830

TOTAL FIELD MAGNETICS



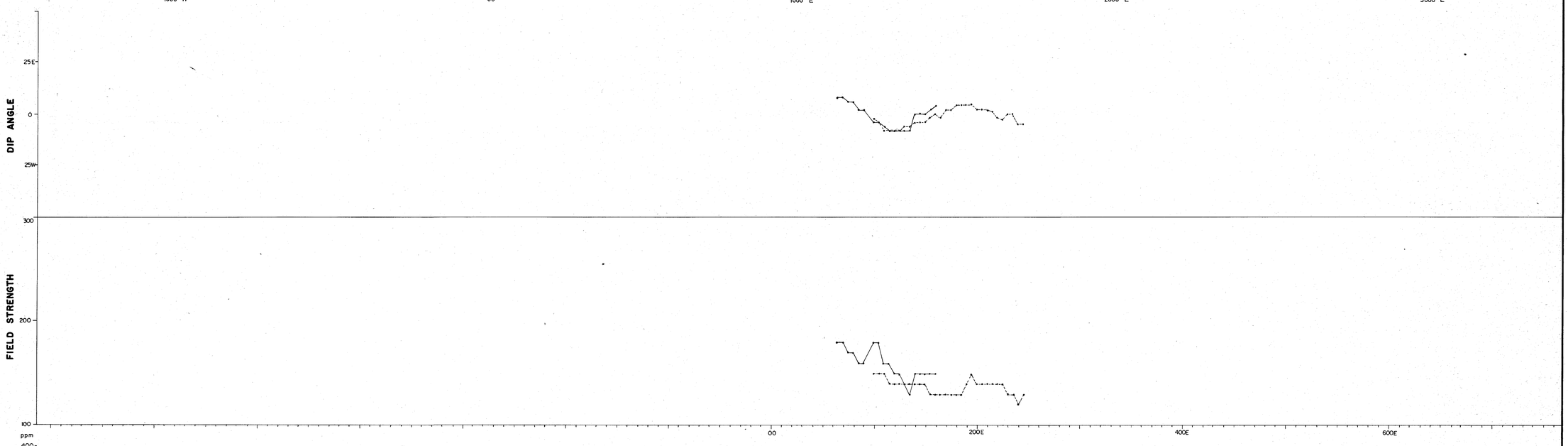
GRADIENT ARRAY I.P.

CHARGEABILITY ——•——
RESISTIVITY ——x——



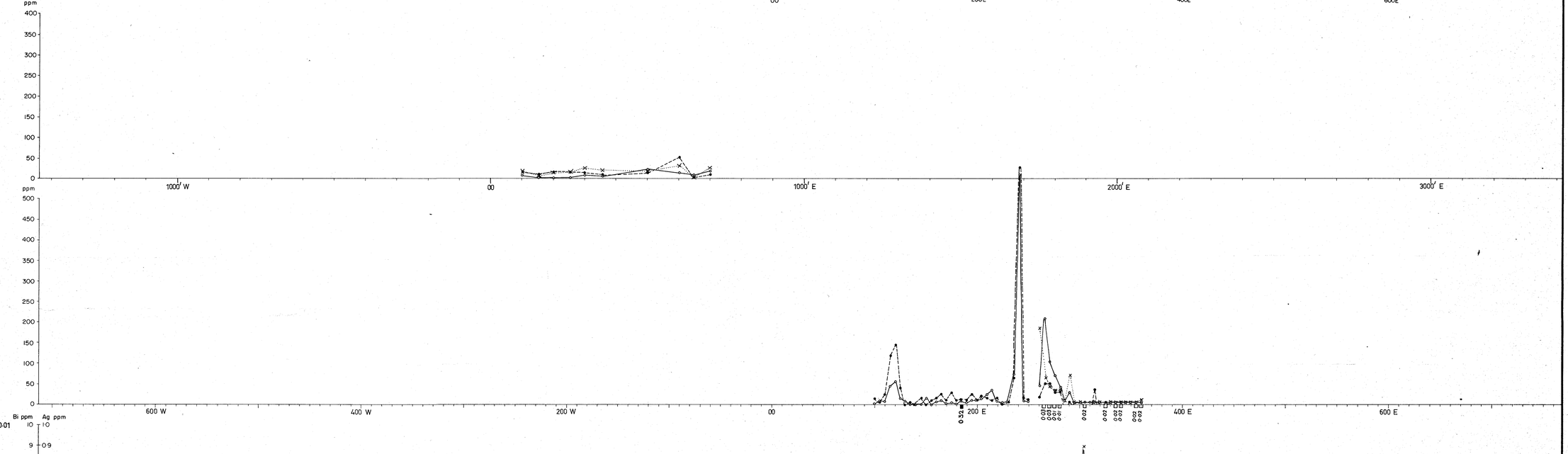
VLF – EM

Tx HAWAII •——— Tx JAPAN •———



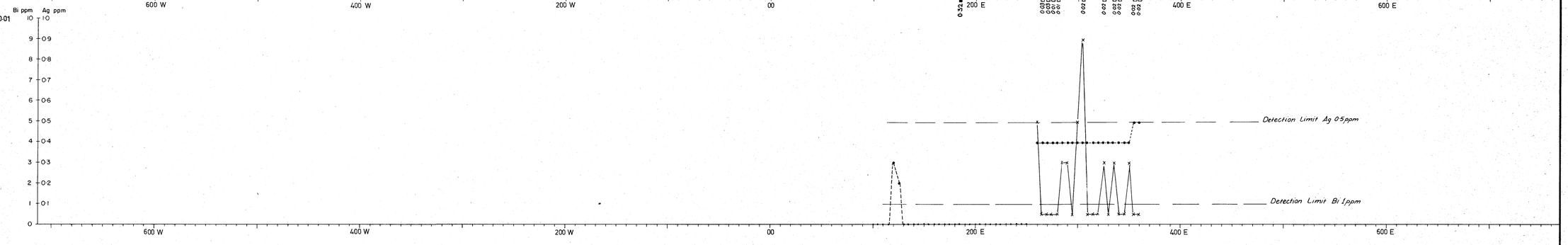
SOIL GEOCHEMISTRY

Cu ——•——
Pb - - - -•- - - -
Zn ·····x·····



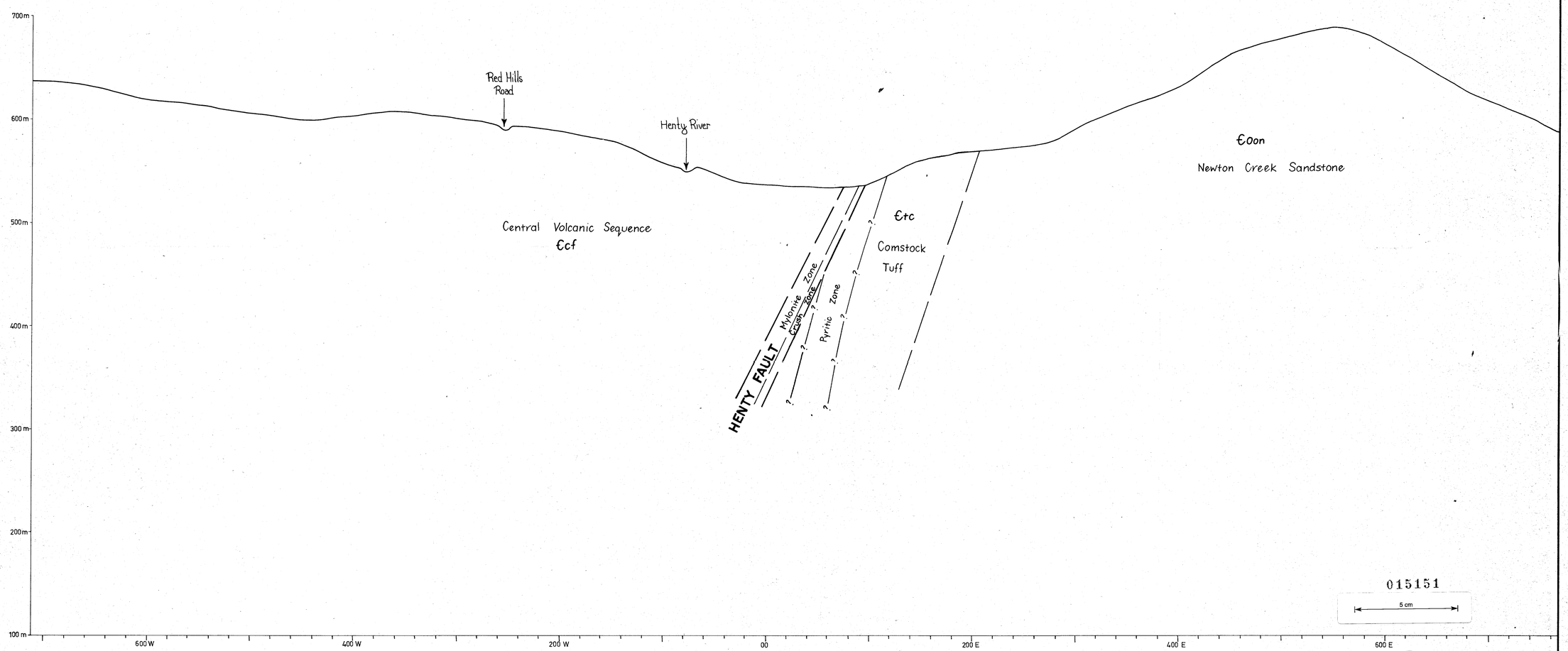
BEDROCK GEOCHEMISTRY

Cu ——•——
Pb - - - -•- - - -
Zn ·····x·····
Au ▶0.1 □<0.1 No Symbol=<0.01
Bi ——x——
Ag - - - -•- - - -



TOPOGRAPHY & GEOLOGY

HEIGHT ABOVE SEA LEVEL



015151

5 cm

86-2565 sls

GOLD FIELDS EXPLORATION PTY LIMITED

E.L.9/66 – TYNDALL PROJECT

HENTY GRID

LINE 45 N

LOOKING NORTH

5830

SCALE 1:2000 40 20 0 20 40 60 80 METRES

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DRAFTSMAN E.V.
DATE July, 1985
REVISIONS
FILE NO.

FIG. 26

5831

TOTAL FIELD MAGNETICS

Gammas
63 400
63 300
63 200
63 100
63 000
62 900
62 800
62 700
62 600
62 500
62 400

1000' W | 00 | 1000' E | 2000' E | 3000' E

GRADIENT ARRAY I.P.

CHARGEABILITY (msec) ——•——
RESISTIVITY (ohm m) ——x——

msec: 25, 20, 15, 10, 5
ohm m: 10000, 5000, 2000, 1000

1000' W | 00 | 1000' E | 2000' E | 3000' E

VLF-EM

Tx HAWAII •– – – –•
Tx JAPAN •————•

DIP ANGLE: 25E, 0, 25W

FIELD STRENGTH: 300, 200, 100

600W | 400W | 200W | 00 | 200E | 400E | 600E

SOIL GEOCHEMISTRY

Cu ——•——
Pb – – •– – –
Zn ·····x·····

ppm: 400, 350, 300, 250, 200, 150, 100, 50, 0

1000' W | 00 | 1000' E | 2000' E | 3000' E

GEOCHEMISTRY

Cu ——•——
Pb – – •– – –
Zn ·····x·····

ppm: 500, 450, 400, 350, 300, 250, 200, 150, 100, 50, 0

Pb 920

600 W | 400 W | 200 W | 00 | 200 E | 400 E | 600 E

BEDROCK GEOCHEMISTRY

Au
•——• 0·1
x——x <0·1
No Symbol = <0·01

Bi ppm: 10, 9, 8, 7, 6, 5, 4, 3, 2, 1, 0
Ag ppm: 1·0, 0·9, 0·8, 0·7, 0·6, 0·5, 0·4, 0·3, 0·2, 0·1, 0

x Bi ——x——
• Ag ——•——

600 W | 400 W | 200 W | 00 | 200 E | 400 E | 600 E

TOPOGRAPHY & GEOLOGY

HEIGHT ABOVE SEA LEVEL

700m
600m
500m
400m
300m
200m
100m

Proj HFZ 12 20m S

Henty River

€cf
Central Volcanic Sequence

€cf
Central Volcanic Sequence

FAULT

€tc
Comstock Tuff

€oon
Newton Creek Sandstone

Mylonite Zone
Crush Zone
HENTY
Pyritic Zone

Proj 4m S

600 W | 400 W | 200 W | 00 | 200 E | 400 E | 600 E

015152

5 cm

86-2565 3|3

5831

GOLD FIELDS EXPLORATION PTY. LIMITED

E.L.9/66 – TYNDALL PROJECT

HENTY GRID

LINE 46 N

LOOKING NORTH

SCALE 1:2000 — 40 20 0 20 40 60 80 METRES

DRAWN BY: C.F.D.P.
DRAFTSMAN: E.V.
DATE: July, 1985
REVISIONS:
FILE NO.

FIG. 27

5832

TOTAL FIELD MAGNETICS

Gammas
63 400
63 300
63 200
63 100
63 000
62 900
62 800
62 700
62 600
62 500
62 400
63 554
1000' W 00 1000' E 2000' E 3000' E

GRADIENT ARRAY I.P.
CHARGEABILITY
RESISTIVITY
msec ohm m
25
20
15 10000
5000
10 2000
5 1000
1000' W 00 1000' E 2000' E 3000' E

VLF - EM
Tx JAPAN
Tx HAWAII
DIP ANGLE
FIELD STRENGTH
0
300
200
100
600W 400W 200W 00 200E 400E 600E

SOIL GEOCHEMISTRY
Cu
Pb
Zn
ppm
400
350
300
250
200
150
100
50
0
1000' W 00 1000' E 2000' E 3000' E
ppm
500
450
400
350
300
250
200
150
100
50
0
600 W 400 W 200 W 00 200 E 400 E 600 E

BEDROCK GEOCHEMISTRY
Cu
Pb
Zn
Au
0·1
<0·1
No Symbol = <0·01
Bi ppm
Ag ppm
Bi
Ag
10
9 0·9
8 0·8
7 0·7
6 0·6
5 0·5
4 0·4
3 0·3
2 0·2
1 0·1
0
0·06
4·3
600 W 400 W 200 W 00 200 E 400 E 600 E

TOPOGRAPHY & GEOLOGY
HEIGHT ABOVE SEA LEVEL
700 m
600 m
500 m
400 m
300 m
200 m
100 m

Red Hills Road
Henty River
Crush Zone
€cf
Central Volcanic Sequence
HENTY FAULT Zone
Mylonite Zone
Pyritic Zone
€tc
Comstock Tuff
€on
Newton Creek Sandstone
proj. 50m N
HP 2 proj. 117m S

600 W 400 W 200 W 00 200 E 400 E 600 E

015153

5 cm

80-2565 3/3

GOLD FIELDS EXPLORATION PTY. LIMITED

E.L.9/66 – TYNDALL PROJECT

HENTY GRID

LINE 47 N

LOOKING NORTH

SCALE 1:2000 40 20 0 20 40 60 80 METRES

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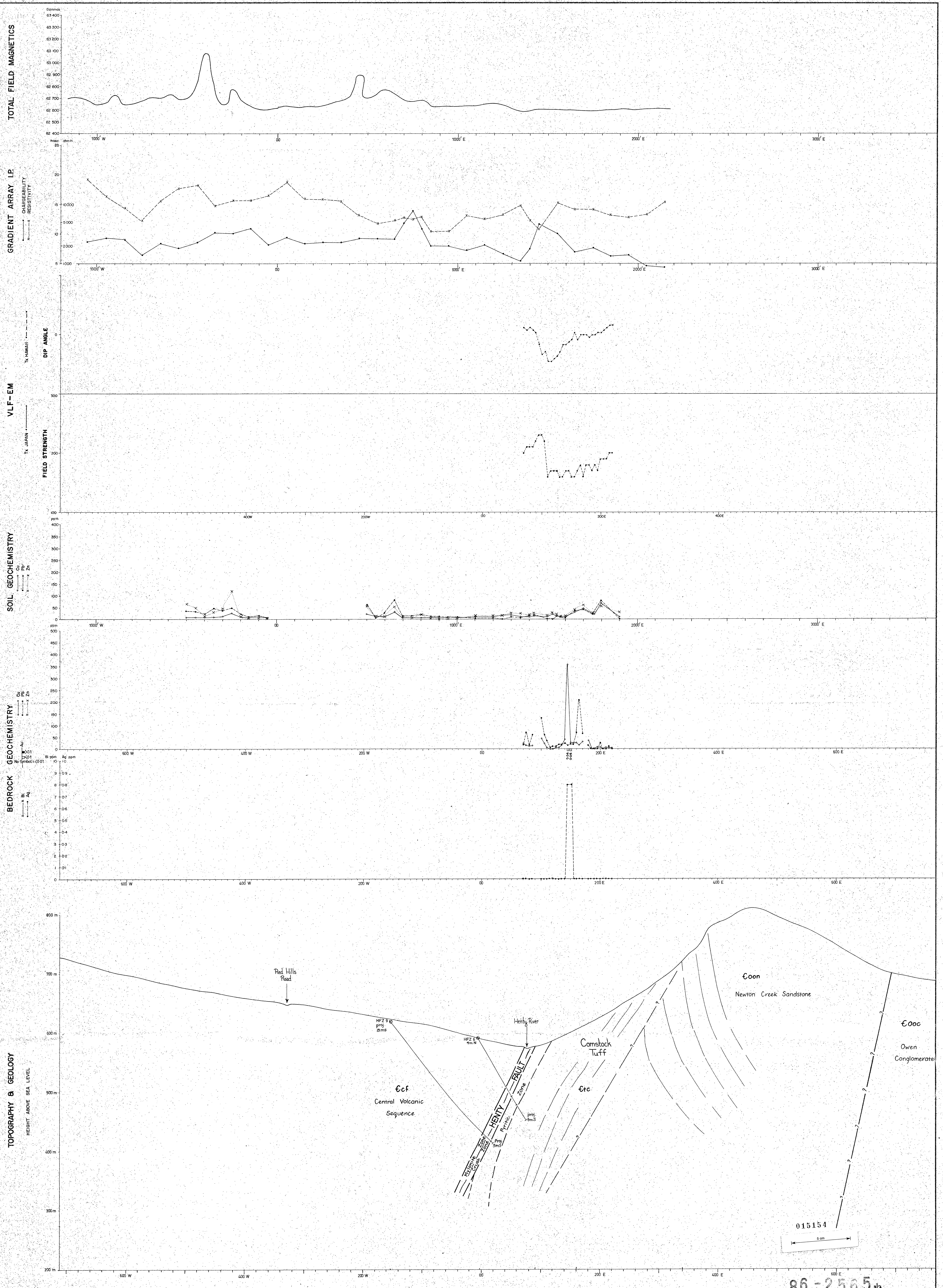
DRAFTSMAN E.V.
DATE July, 1965
REVISIONS
FILE NO. 5832
FIG. 28

5833



86 - 2565 3/3

GOLD FIELDS EXPLORATION PTY. LIMITED	
E.L.9/66 – TYNDALL PROJECT	DRAWN BY C.F.D.P.
HENTY GRID	DRAFTSMAN E.V.
LINE 48 N	DATE July,1985
LOOKING NORTH 5833	REVISIONS
	FILE NO.
SCALE 1:2000 (40 20 0 20 40 60 80 METRES)	FIG. 29


5834
TOTAL FIELD MAGNETICS
Gammas
GRADIENT ARRAY I.P.
CHARGEABILITY
RESISTIVITY
msec ohm m
27·19
VLF-EM
Tx HAWAII
DIP ANGLE
Tx JAPAN
FIELD STRENGTH
SOIL GEOCHEMISTRY
Cu
Pb
Zn
ppm
BEDROCK GEOCHEMISTRY
Au
No Symbol = <0·01
Bi ppm
Ag ppm
Bi
Ag
Cu 1550
Pb 520
Pb 550
00
1000' E
2000' E
3000' E
600 W
400 W
200 W
200 E
400 E
600 E
TOPOGRAPHY & GEOLOGY
HEIGHT ABOVE SEA LEVEL
800 m
700 m
600 m
500 m
400 m
300 m
200 m
Red Hills Road
HP1 Proj. 20mN
Henty River
HFZ 5 Proj. 3mS
Crush Zone
HENTY FAULT
Mylonite Zone
Zone
Pyritic
3·7m @ 10 g/t Au
Proj. 7mS
Proj. 4mS
Central Volcanic Sequence
€cf
Comstock Tuff
€tc
Newton Creek Sandstone
Owen Conglomerate
€oc
015155
5 cm
86-2565 3/3
GOLD FIELDS EXPLORATION PTY. LIMITED
E.L.9/66 – TYNDALL PROJECT
HENTY GRID
LINE 49 N
LOOKING NORTH
5834
DRAWN BY : C.F.D.P.
DRAFTSMAN E.V.
DATE July, 1985
REVISIONS
FILE NO.
SCALE 1:2000
METRES
FIG. 30

5835

TOTAL FIELD MAGNETICS

Gammas
63 400
63 300
63 200
63 100
63 000
62 900
62 800
62 700
62 600
62 500
62 400

00 1000' E 2000' E 3000' E

GRADIENT ARRAY I.P.

msec ohm m
25
20
15 — 10000
10 — 5000
5 — 2000 — 1000
● —— ● CHARGEABILITY
x - - - x RESISTIVITY

00 1000' E 2000' E 3000' E

VLF - EM

Tx. HAWAII ● — — — ●
Tx. JAPAN ● ——— ●

DIP ANGLE
25E
0
25W

FIELD STRENGTH
300
200
100

ppm
600W 400W 200W 00 200E 400E 600E

SOIL GEOCHEMISTRY

Cu ○ —— ○
Pb ● - - - ●
Zn x ····· x

ppm
400
350
300
250
200
150
100
50
0

00 1000' E 2000' E 3000' E

BEDROCK GEOCHEMISTRY

Cu ○ —— ○
Pb ● - - - ●
Zn x ····· x

Au
● 0·1
✕ 0·1
No Symbol = <0·01

Bi ppm
Ag ppm

x Bi
● Ag

500
450
400
350
300
250
200
150
100
50
0

10 9 8 7 6 5 4 3 2 1 0
1·0 0·9 0·8 0·7 0·6 0·5 0·4 0·3 0·2 0·1 0

Au
3·2

600 W 400 W 200 W 00 200 E 400 E 600 E

TOPOGRAPHY & GEOLOGY

HEIGHT ABOVE SEA LEVEL

900 m
800 m
700 m
600 m
500 m
400 m
300 m

Henty
Red Hills Road

Henty River

HP 4 @ Proj 15m S

Central Volcanic Sequence
€cf

Central Volcanic Sequence
€cf

Crush Zone

HENTY FAULT Zone
Mylonite
Pyritic
Zone
Gwen "Finger"
Proj 25m N

Comstock Tuff
€tc

€Ooc
Owen Conglomerate

€Oon
Newton Creek Sandstone

€tl?
Quartz Porphyry Lavas

?

600 W 400 W 200 W 00 200 E 400 E 600 E

015156
5 cm

86-2565 3/3

GOLD FIELDS EXPLORATION PTY LIMITED

E.L.9/66 – TYNDALL PROJECT

HENTY GRID

LINE 50 N

LOOKING NORTH

5835

SCALE 1:2000

40 20 0 20 40 60 80 METRES

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DATE July, 1985
REVISIONS

FILE NO.

FIG. 31

5836

TOTAL FIELD MAGNETICS

Gammas
63 400
63 300
63 200
63 100
63 000
62 900
62 800
62 700
62 600
62 500
62 400
63 589
63 786
63 809
63 771
63 672
63 761
1000' W
00
1000' E
2000' E
3000' E

GRADIENT ARRAY I.P.

CHARGEABILITY
RESISTIVITY
msec
ohm m
25
20
15
10
5
10000
5000
2000
1000
1000' W
00
1000' E
2000' E
3000' E

VLF-EM

Tx. HAWAII
Tx. JAPAN

DIP ANGLE
25E
0
25W

FIELD STRENGTH
300
200
100
400W
200W
00
200E
400E
600E

SOIL GEOCHEMISTRY

Cu
Pb
Zn
ppm
400
350
300
250
200
150
100
50
0
1000' W
00
1000' E
2000' E
3000' E

BEDROCK GEOCHEMISTRY

Cu
Pb
Zn
Au
>0·1
<0·1
No Symbol = <0·01
Bi
Ag
Bi ppm
Ag ppm
10
9
8
7
6
5
4
3
2
1
0
0·9
0·8
0·7
0·6
0·5
0·4
0·3
0·2
0·1
600 W
400 W
200 W
00
200 E
400 E
600 E
Pb
640
0·01
0·02
0·14
0·50
1·54
0·03
0·43
Ag
1·8
13·8

TOPOGRAPHY & GEOLOGY

HEIGHT ABOVE SEA LEVEL
900m
800m
700m
600m
500m
400m
300m
Henty
Red Hills Road
Henty River
HP 6
proj. 1.5m N
Crush Zone
FAULT
Mineralisation Zone
Mylonite Zone
HENTY
SIGNIFICANT Au
Pyritic Zone
proj. 1.5m N
Ccf
Central Volcanic Sequence
Ccf
Central Volcanic Sequence
Ctc
Comstock Tuff
COon
Newton Creek Sandstone
COoc
Owen Conglomerate
?
015157
5 cm

86-2565 3/3

GOLD FIELDS EXPLORATION PTY LIMITED

E.L.9/66 – TYNDALL PROJECT

HENTY GRID

LINE 51 N

LOOKING NORTH

SCALE 1:2000 40 20 0 20 40 60 80 METRES

DRAWN BY C.F.D.P.
DRAFTSMAN E.V
DATE July, 1985
REVISIONS
FILE NO. 5836
FIG. 32

5837

TOTAL FIELD MAGNETICS

Gammas
63 400
63 300
63 200
63 100
63 000
62 900
62 800
62 700
62 600
62 500
62 400

2000' W | 1000' W | 00 | 1000' E | 2000' E

GRADIENT ARRAY I.P.

• —— • CHARGEABILITY
x - - - x RESISTIVITY

msec | ohm m
25
20
15
10
5
10000
5000
2000
1000

Results from check survey (1979).

2000' W | 1000' W | 00 | 1000' E | 2000' E

VLF - EM

Tx JAPAN • ——— •
Tx HAWAII • - - - •

DIP ANGLE
25E
0
25W

FIELD STRENGTH
300
200
100

ppm
600W | 400W | 200W | 00 | 200E | 400E | 600E

SOIL GEOCHEMISTRY

o —— o Cu
• - - - • Pb
x ····· x Zn

ppm
400
350
300
250
200
150
100
50
0

2000' W | 1000' W | 00 | 1000' E | 2000' E

ROCK GEOCHEMISTRY

o —— o Cu
• - - - • Pb
x ····· x Zn

Au ppb
● >0·1
□ <0·1
No Symbol ≤ <0·01

ppm
500
450
400
350
300
250
200
150
100
50
0

600 W | 400 W | 200 W | 00 | 200 E | 400 E | 600 E

BEDROCK

x —— x Bi
• - - - • Ag

Bi ppm | Ag ppm
10 | 1·0
9 | 0·9
8 | 0·8
7 | 0·7
6 | 0·6
5 | 0·5
4 | 0·4
3 | 0·3
2 | 0·2
1 | 0·1
0

600 W | 400 W | 200 W | 00 | 200 E | 400 E | 600 E

TOPOGRAPHY & GEOLOGY

HEIGHT ABOVE SEA LEVEL

900m
800m
700m
600m
500m
400m
300m

Creek
Henty Red Hills Road
Henty River
Crush Zone
FAULT Zone ?
HENTY Mylonite Zone
Pyritic
Comstock Tuff
Etc
Quartz Porphyry Lavas
Etl
Central Volcanic Sequence
Ecf
Central Volcanic Sequence
Ecf
Eoon ?
Newton Creek Sandstone

600 W | 400 W | 200 W | 00 | 200 E | 400 E | 600 E

015158

5 cm

86-2565 3/3

GOLD FIELDS EXPLORATION PTY. LIMITED

E.L.9/66 – TYNDALL PROJECT

HENTY GRID

LINE 52 N

LOOKING NORTH

5837

SCALE 1:2000 — 40 20 0 20 40 60 80 METRES

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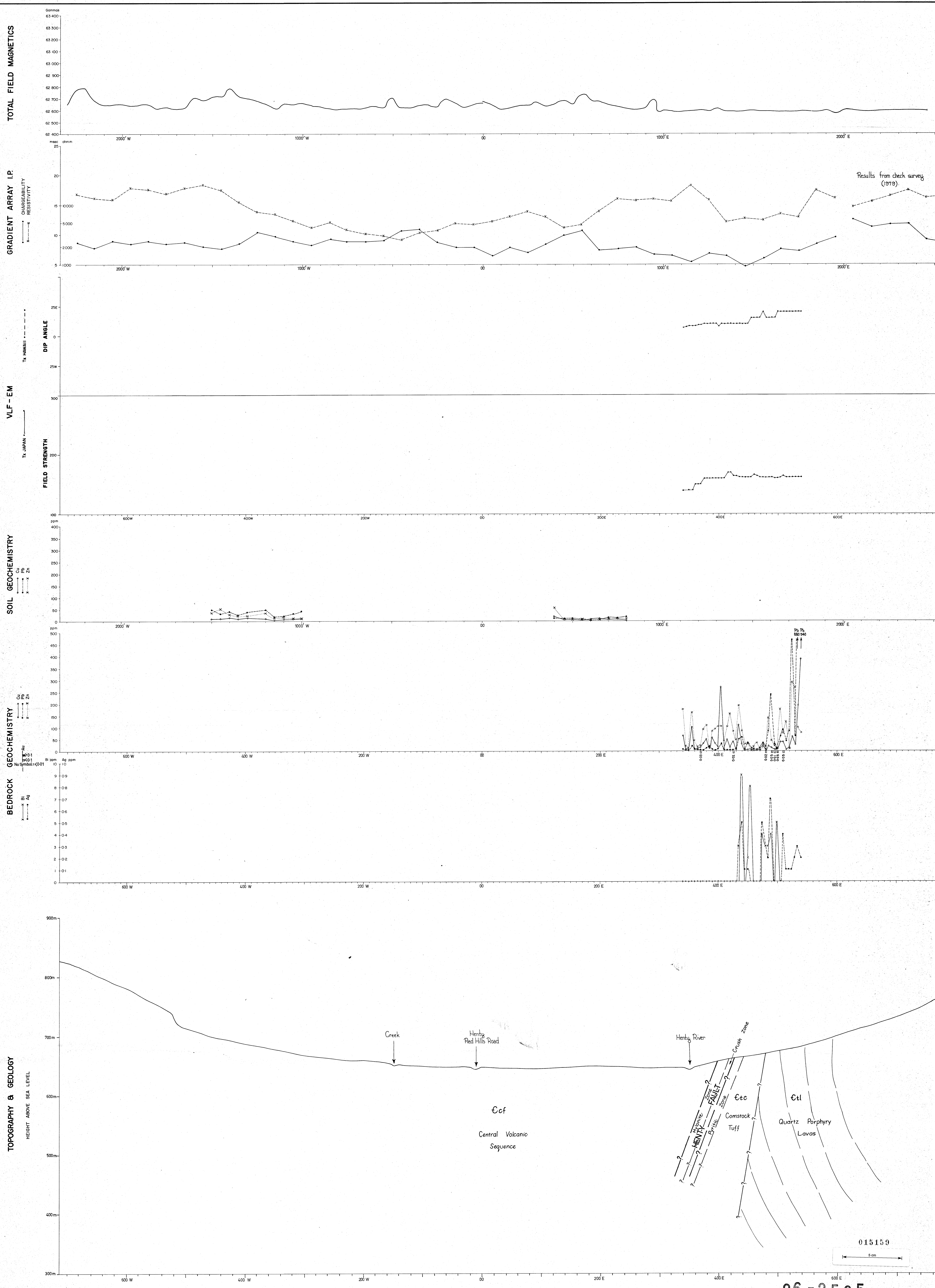
DRAFTSMAN	E.V.
DATE	July, 1985
REVISIONS	
FILE NO.	

FIG. 33



86 - 2565 3/3

GOLD FIELDS EXPLORATION PTY. LIMITED

E.L. 9/66 – TYNDALL PROJECT

HENTY GRID

LINE 53 N

LOOKING NORTH

5838

SCALE 1:2000

40 20 0 20 40 60 80 METRES

DRAWN BY	C.F.D.P.
DRAFTSMAN	E.V.
DATE	July, 1985
REVISIONS	
FILE NO.	
FIG. 34	

5839

TOTAL FIELD MAGNETICS

Gammas
63 400
63 300
63 200
63 100
63 000
62 900
62 800
62 700
62 600
62 500
62 400

2000' W 1000' W 00 1000' E 2000' E

GRADIENT ARRAY I.P.

——·: CHARGEABILITY msec
·– – –·: RESISTIVITY ohm m

25
20
15 — 10000
10 — 5000
5 — 2000
1000

2000' W 1000' W 00 1000' E 2000' E

VLF- EM

Tx JAPAN ·——· Tx HAWAII ·– – –·

DIP ANGLE

25E
0
25W

FIELD STRENGTH

300
200
100

600W 400W 200W 00 200E 400E 600E

SOIL GEOCHEMISTRY

Cu
Pb
Zn

ppm
400
350
300
250
200
150
100
50
0

2000' W 1000' W 00 1000' E 2000' E

BEDROCK GEOCHEMISTRY

Cu
Pb
Zn

Au
○ 0·1
× 0·1
No Symbol = <0·01

Bi
Ag

Bi ppm Ag ppm
10 1·0
9 0·9
8 0·8
7 0·7
6 0·6
5 0·5
4 0·4
3 0·3
2 0·2
1 0·1
0

Zn 860

Bi 12

0·03

600 W 400 W 200 W 00 200 E 400 E 600 E

TOPOGRAPHY & GEOLOGY

HEIGHT ABOVE SEA LEVEL

900 m
800 m
700 m
600m
500m
400m
300 m

Creek
Henty Red Hills Road
Henty River
Creek

Central Volcanic Sequence
€cf

Central Volcanic Sequence
€cf

Quartz – Porphyry Lavas
€ql

Chloritic Schists
? HENTY FAULT ?
Crush Zone

600 W 400 W 200 W 00 200 E 400 E 600 E

015160

5 cm

86 - 2565 3/3

GOLD FIELDS EXPLORATION PTY LIMITED

E.L.9/66 – TYNDALL PROJECT

HENTY GRID

LINE 54 N

LOOKING NORTH

5839

SCALE 1:2000 40 20 0 20 40 60 80 METRES

DRAWN BY C.F.D.P
DRAFTSMAN E.V.
DATE July, 1985
REVISIONS
FILE NO.

FIG. 35

5840

TOTAL FIELD MAGNETICS

Gammas
63 400
63 300
63 200
63 100
63 000
62 900
62 800
62 700
62 600
62 500
62 400

1000'W 00 1000'E 2000'E 3000'E

GRADIENT ARRAY I.P.

CHARGEABILITY
RESISTIVITY

msec ohmm
25
20
15 10000
10 5000
5 2000
1000

1000'W 00 1000'E 2000'E 3000'E

VLF-EM

Tx JAPAN •——• Tx HAWAII •– – –•

FIELD STRENGTH

DIP ANGLE
25E
0
25W

100
200
300

00 200E 400E 600E

SOIL GEOCHEMISTRY

Cu
Pb
Zn

ppm
400
350
300
250
200
150
100
50
0

1000'W 00 1000'E 2000'E

ppm
500
450
400
350
300
250
200
150
100
50
0

00 200E 400E 600E

BEDROCK GEOCHEMISTRY

Cu
Pb
Zn

Au
■ >0·1
□ <0·1
No Symbol = <0·01

Bi
Ag

Bi ppm
10
9
8
7
6
5
4
3
2
1
0

Ag ppm
1·0
0·9
0·8
0·7
0·6
0·5
0·4
0·3
0·2
0·1

Bi 1·7
0·01
Ag 0·65
0·03
0·02
0·01

Detection Limit Ag 0·5ppm

Detection Limit Bi 1ppm

00 200E 400E 600E

TOPOGRAPHY & GEOLOGY

HEIGHT ABOVE SEA LEVEL

900m
800m
700m
600m
500m

Creek
Road
Creek
Henty River

Ecf
CENTRAL VOLCANIC SEQUENCE

Ecf
CHLORITIC SCHISTS

MYLONITE ZONE
CRUSH ZONE
HENTY FAULT

Etl
QUARTZ PORPHYRY LAVA

00 200E 400E 600E 800E

015161

5 cm

86-2565 3/3

GOLD FIELDS EXPLORATION PTY LIMITED

E.L.9/66 – TYNDALL PROJECT

HENTY GRID

LINE 55 N

LOOKING NORTH

5840

SCALE 1:2000 40 20 0 20 40 60 80 METRES

DRAWN BY	C.F.D.P.
DRAFTSMAN	S.F.
DATE	July, 1985
REVISIONS	
FILE NO.	

FIG 36

5841


TOTAL FIELD MAGNETICS
Gammas
GRADIENT ARRAY I.P.
CHARGEABILITY
RESISTIVITY
msec ohm m
VLF-EM
Tx JAPAN
Tx HAWAII
DIP ANGLE
FIELD STRENGTH
SOIL GEOCHEMISTRY
Cu
Pb
Zn
ppm
BEDROCK GEOCHEMISTRY
Au
>0·1
<0·1
No Symbol=<0·01
Bi
Ag
Bi ppm
Ag ppm
TOPOGRAPHY & GEOLOGY
HEIGHT ABOVE SEA LEVEL
Road
Road
Henty River
Ecf
Ecf
Ecf
Ecf
Etl
QUARTZ - SERICITE ALTERATION ZONE
CENTRAL VOLCANIC SEQUENCE
CHLORITIC SCHISTS
MYLONITE ZONE
CRUSH ZONE
HENTY FAULT
QUARTZ PORPHYRY LAVA
200W
00
200E
400E
600E
800E
1000E
1000'E
2000'E
3000'E
4000'E
015162
5 cm
86-2565 3/3
GOLD FIELDS EXPLORATION PTY LIMITED
E.L.9/66 – TYNDALL PROJECT
HENTY GRID
LINE 56N
LOOKING NORTH
5841
DRAWN BY C.F.D.P.
DRAFTSMAN S.F.
DATE July, 1985
REVISIONS
FILE NO.
SCALE 1:2000
METRES
FIG 37

5842

TOTAL FIELD MAGNETICS

Gammas
63 400
63 300
63 200
63 100
63 000
62 900
62 800
62 700
62 600
62 500
62 400

00 1000'E 2000'E 3000'E 4000'E

GRADIENT ARRAY I.P.

CHARGEABILITY ——•——
RESISTIVITY - - - x - - -

msec ohm m.
25
20
15 10000
10 5000
5 2000
1000

00 1000E 2000E 3000E 4000'E

VLF-EM

Tx JAPAN •——• Tx HAWAII •— — —•

DIP ANGLE
25W
0
25E

FIELD STRENGTH
300
200
100

00 200E 400E 600E 800E 1000E

SOIL GEOCHEMISTRY

Cu ——•——
Pb - - -•- - -
Zn ·····x·····

ppm
400
350
300
250
200
150
100
50
0

00 1000'E

BEDROCK GEOCHEMISTRY

Au
■ >0·1
X 0·1
No Symbol ≤ 0·01

Bi ——x——
Ag - - -•- - -

Bi ppm
10
9
8
7
6
5
4
3
2
1
0

Ag ppm
1·0
0·9
0·8
0·7
0·6
0·5
0·4
0·3
0·2
0·1

TOPOGRAPHY & GEOLOGY

HEIGHT ABOVE SEA LEVEL

900m
800m
700m
600m
500m
400m

Road
Road
Creek

Ecf
QUARTZ - SERICITE ALTERATION ZONE

Ecf
CENTRAL VOLCANIC SEQUENCE

CHLORITIC SCHISTS
MYLONE ZONE
CRUSH ZONE
HENTY FAULT

Etl
QUARTZ PORPHYRY LAVA

00 200E 400E 600E 800E 1000E

015163

5 cm

86-2565 3B

GOLD FIELDS EXPLORATION PTY LIMITED

E.L.9/66 – TYNDALL PROJECT
HENTY GRID
LINE 57 N

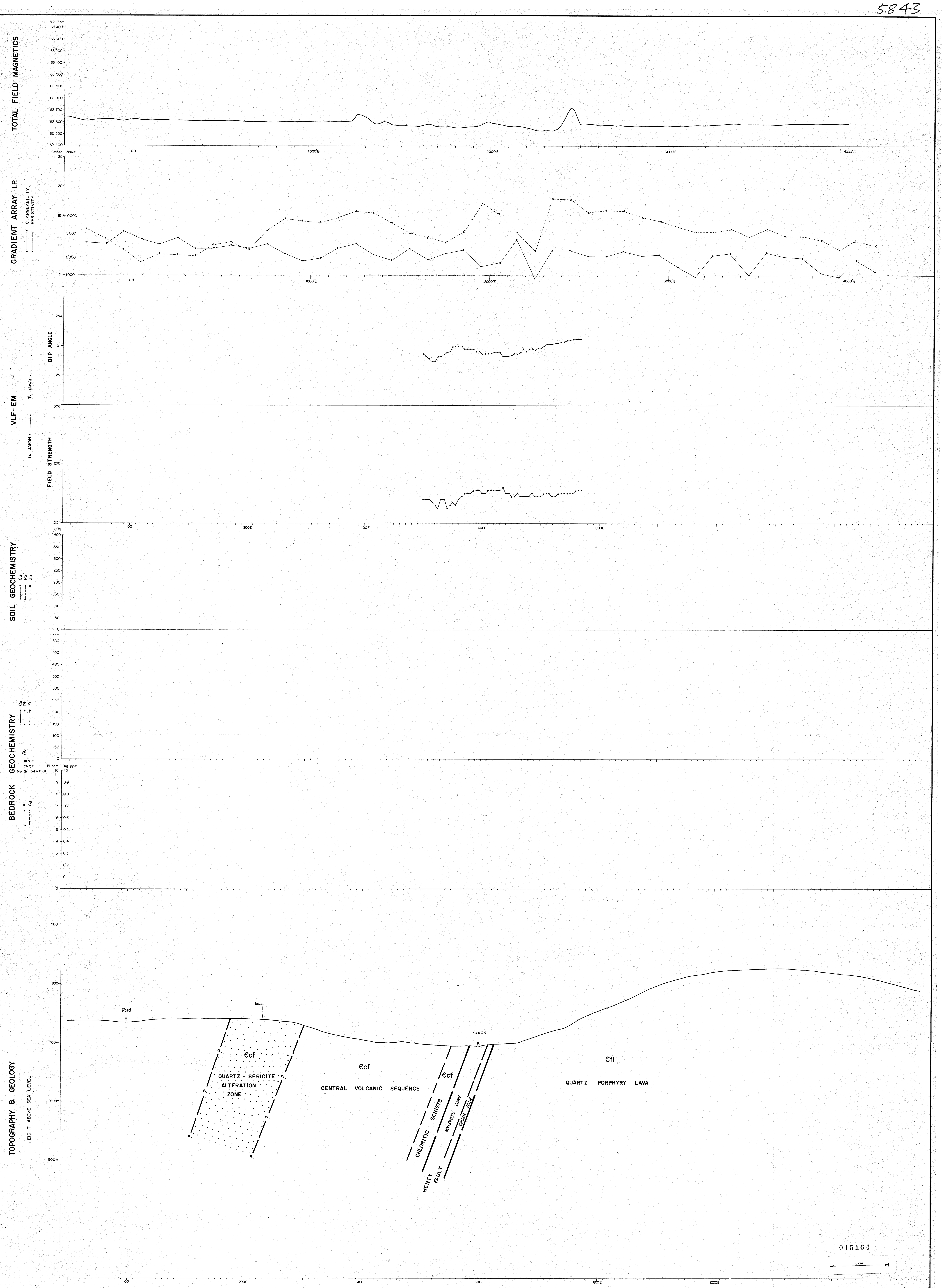
LOOKING NORTH 5842

SCALE 1:2000 40 20 0 20 40 60 80 METRES

DRAWN BY C.F.D.P.
DRAFTSMAN S.F.
DATE July, 1985
REVISIONS
FILE NO.

FIG. 38

5843



86-2565 3/3

GOLD FIELDS EXPLORATION PTY LIMITED

E.L.9/66 – TYNDALL PROJECT

HENTY GRID

LINE 58N

LOOKING NORTH 5843

SCALE 1:2000 (40 20 0 20 40 60 80 METRES)

DRAWN BY C.F.D.P.
DRAFTSMAN S.F.
DATE July,1985
REVISIONS
FILE NO.
FIG. 39

5844

TOTAL FIELD MAGNETICS

Gammas
63 400
63 300
63 200
63 100
63 000
62 900
62 800
62 700
62 600
62 500
62 400

00 1000'E 2000'E 3000'E

GRADIENT ARRAY I.P.

CHARGEABILITY
RESISTIVITY

msec ohm m
25
20
15 10000
10 5000
5 2000
1000

00 1000'E 2000'E 3000'E

VLF-EM

Tx HAWAII
Tx JAPAN

DIP ANGLE
25W
0
25E

FIELD STRENGTH
300
200
100

00 200E 400E 600E 800E 1000E

SOIL GEOCHEMISTRY

Cu
Pb
Zn

ppm
400
350
300
250
200
150
100
50
0

BEDROCK GEOCHEMISTRY

Cu
Pb
Zn

ppm
500
450
400
350
300
250
200
150
100
50
0

Au
■ >0.1
□ <0.1
No Symbol = <0.01

Bi ppm
10
9
8
7
6
5
4
3
2
1
0

Ag ppm
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0

Bi
Ag

TOPOGRAPHY & GEOLOGY

HEIGHT ABOVE SEA LEVEL

900m
800m
700m
600m
500m
400m

Road
Road
Creek

€cf
Quartz - Sericite Alteration Zone
€cf
Central Volcanic Sequence
€cf
Chloritic Schists
Mylonite Zone
Crush Zone
HENTY FAULT
€tl
Quartz Porphyry Lavas

00 200E 400E 600E 800E 1000E 1200E

015165

5 cm

86-2565 3/3

GOLD FIELDS EXPLORATION PTY LIMITED

E.L.9/66 – TYNDALL PROJECT

HENTY GRID

LINE 59N

LOOKING NORTH

5844

SCALE 1 2000 40 20 0 20 40 60 80 METRES

DRAWN BY C.F.D.P.
DRAFTSMAN S.F.
DATE July, 1985
REVISIONS
FILE NO.

FIG 40

5845

TOTAL FIELD MAGNETICS

Gammas
63 400
63 300
63 200
63 100
63 000
62 900
62 800
62 700
62 600
62 500
62 400

1000'W 00 1000'E 2000'E 3000'E

GRADIENT ARRAY I.P.

CHARGEABILITY
RESISTIVITY

msec ohm m
25
20
15 10000
5000
10
2000
5 1000

1000'W 00 1000'E 2000'E 3000'E

VLF-EM

Tx JAPAN •——• Tx HAWAII •— — —•

DIP ANGLE
0
300

FIELD STRENGTH
200
100
ppm

SOIL GEOCHEMISTRY

Cu
Pb
Zn

ppm
400
350
300
250
200
150
100
50
0

1000'W 00 1000'E 2000'E 3000'E

BEDROCK GEOCHEMISTRY

Cu
Pb
Zn

Au
■ >0·1
□ >0·1
No Symbol <0·01

Bi
Ag

Bi ppm
10
9
8
7
6
5
4
3
2
1
0

Ag ppm
1·0
0·9
0·8
0·7
0·6
0·5
0·4
0·3
0·2
0·1

200W 00 200E 400E 600E 800E

Detection Limit Ag 0·5ppm

Detection Limit Bi 1ppm

TOPOGRAPHY & GEOLOGY

HEIGHT ABOVE SEA LEVEL

900m
800m
700m
600m
500m
400m
300m

400W 200W 00 200E 400E 600E 800E

Roads

Road

QUARTZ - SERICITE ALTERATION ZONE

Ecf

CENTRAL VOLCANIC SEQUENCE

Ecf

CHLORITIC SCHISTS

MYLONITE ZONE

CRUSH ZONE

HENTY FAULT

Etl

QUARTZ PORPHYRY LAVAS

015166

5 cm

80-2565 3/3

GOLD FIELDS EXPLORATION PTY LIMITED

E.L.9/66 – TYNDALL PROJECT

HENTY GRID

LINE 60N

LOOKING NORTH

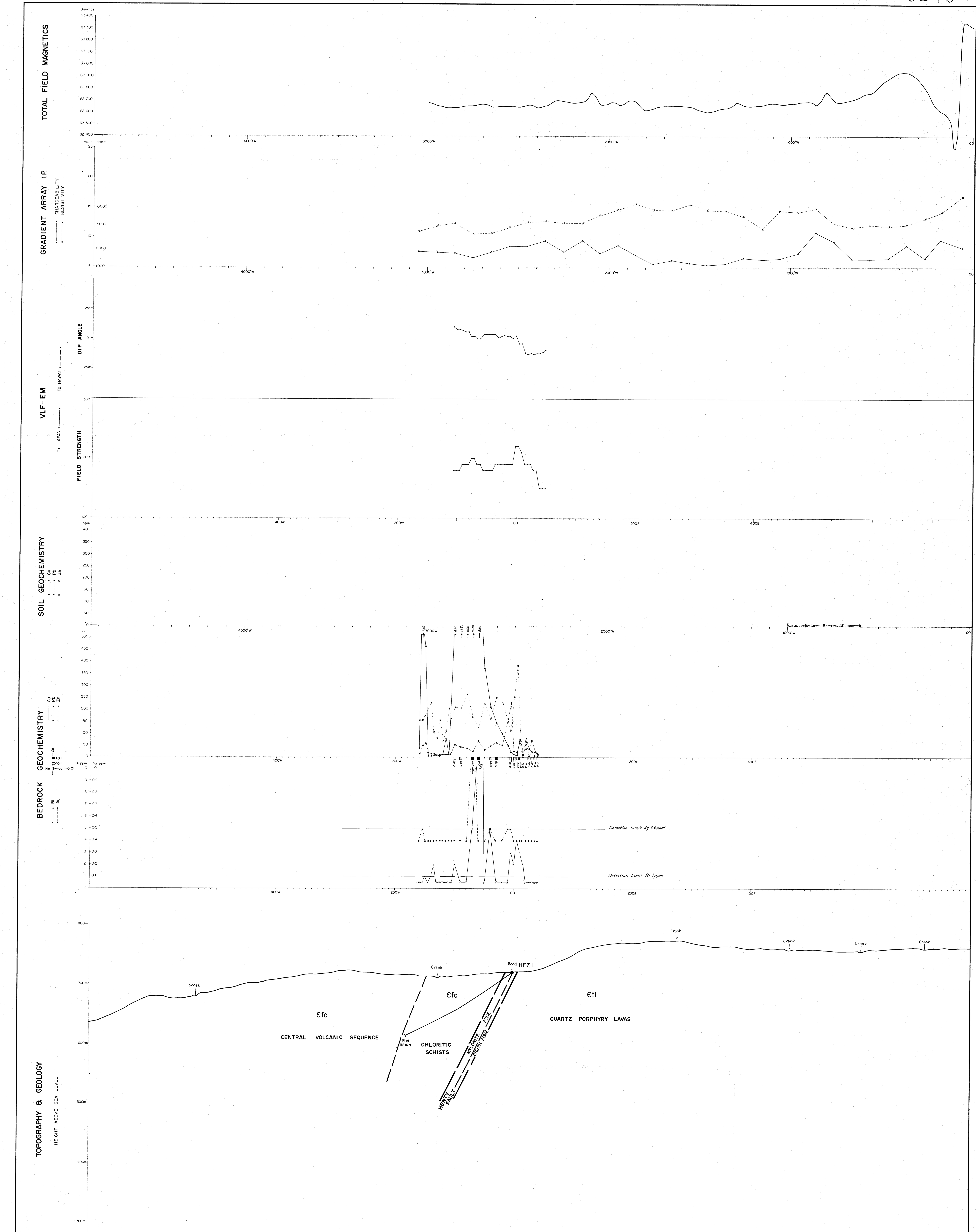
5845

SCALE 1:2000

40 20 0 20 40 60 80 METRES

DRAWN BY	C.F.D.P.
DRAFTSMAN	S.F.
DATE	July, 1985
REVISIONS	
FILE NO.	
FIG	41

5846



86-2565 3/3

GOLD FIELDS EXPLORATION PTY LIMITED

E.L.9/66 – TYNDALL PROJECT

HENTY GRID

LINE 63N

LOOKING NORTH 5846

DRAWN BY C.F.D.P.
DRAFTSMAN S.F.
DATE July, 1985
REVISIONS

FILE NO.

SCALE 1:2000 40 20 0 20 40 60 80 METRES

FIG 42

5847

TOTAL FIELD MAGNETICS

Gammas
63 400
63 300
63 200
63 100
63 000
62 900
62 800
62 700
62 600
62 500
62 400

4000'W 3000'W 2000'W 1000'W

GRADIENT ARRAY I.P.

CHARGEABILITY
RESISTIVITY

msec ohm.m.
25
20
15 10000
5000
10
2000
5 1000

4000'W 3000'W 2000'W 1000'W

VLF-EM

Tx JAPAN •——•
Tx HAWAII •— — —•

DIP ANGLE
0
100

FIELD STRENGTH
200
100

SOIL GEOCHEMISTRY

Cu
Pb
Zn

ppm
400
350
300
250
200
150
100
50
0

4000'W 3000'W 2000'W 1000'W

ROCK GEOCHEMISTRY

Au
■ >0.1
□ <0.1
No Symbol <0.01

Bi ppm Ag ppm
10
9 +09
8 +08
7 +07
6 +06
5 +05
4 +04
3 +03
2 +02
1 +01
0

Cu
Pb
Zn

Detection Limit Ag 0.5ppm
Detection Limit Bi 1ppm

400W 200W 00 200E 400E

BEDROCK

Bi
Ag

TOPOGRAPHY & GEOLOGY

HEIGHT ABOVE SEA LEVEL

900m
800m
700m
600m
500m
400m

Creek
Road
Road
HFZ 2

Ecf
CENTRAL VOLCANIC SEQUENCE

Etl
QUARTZ PORPHYRY LAVA

Proj 40m S

CHLORITIC SCHISTS
MYLONITE ZONE
CRUSH ZONE
HENTY FAULT

600W 400W 200W 00 200E 400E 600E

015168

5 cm

86-2565 3b

GOLD FIELDS EXPLORATION PTY LIMITED

E.L.9/66 – TYNDALL PROJECT

HENTY GRID

LINE 65N

LOOKING NORTH

5847

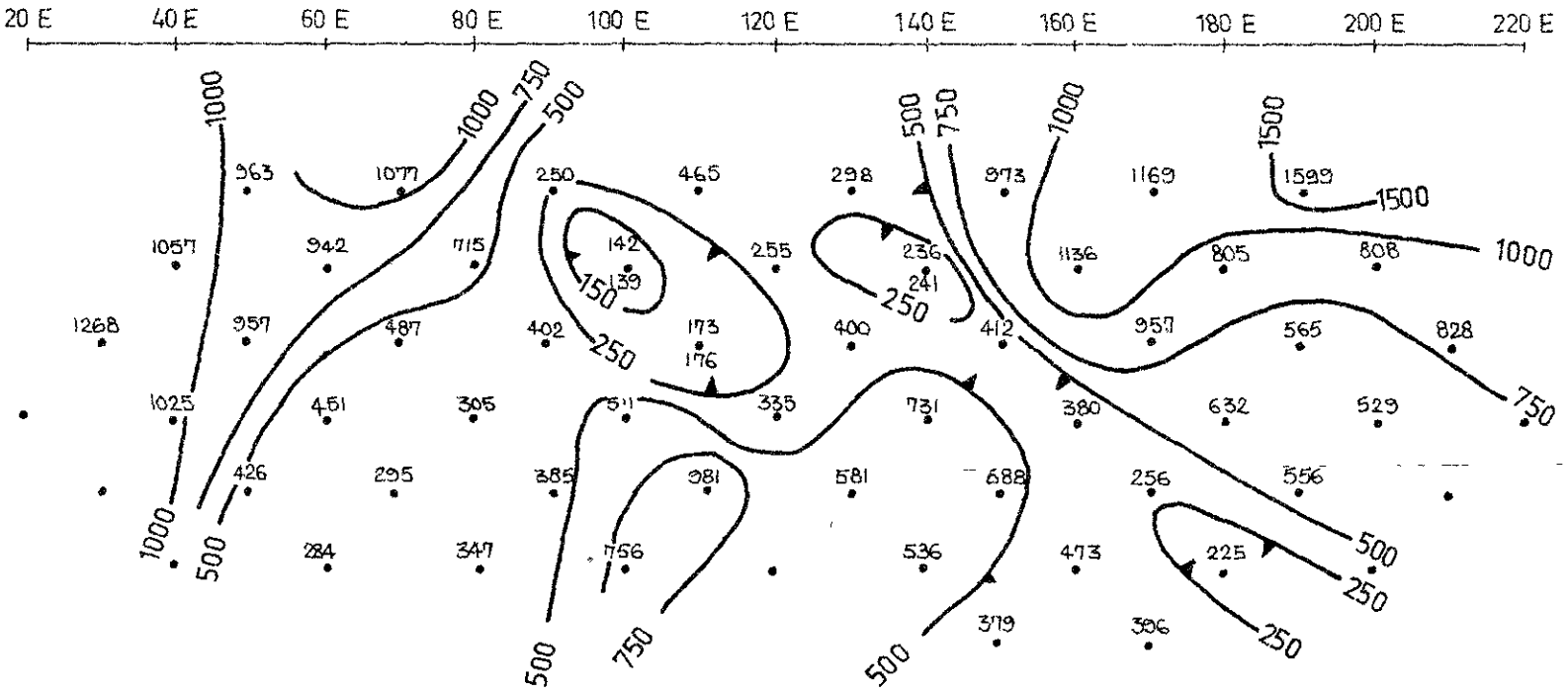
SCALE 1 2000 40 20 0 20 40 60 80 METRES

DRAWN BY C.F.D.P.
DRAFTSMAN S.F.
DATE July, 1985
REVISIONS
FILE NO.

FIG 43

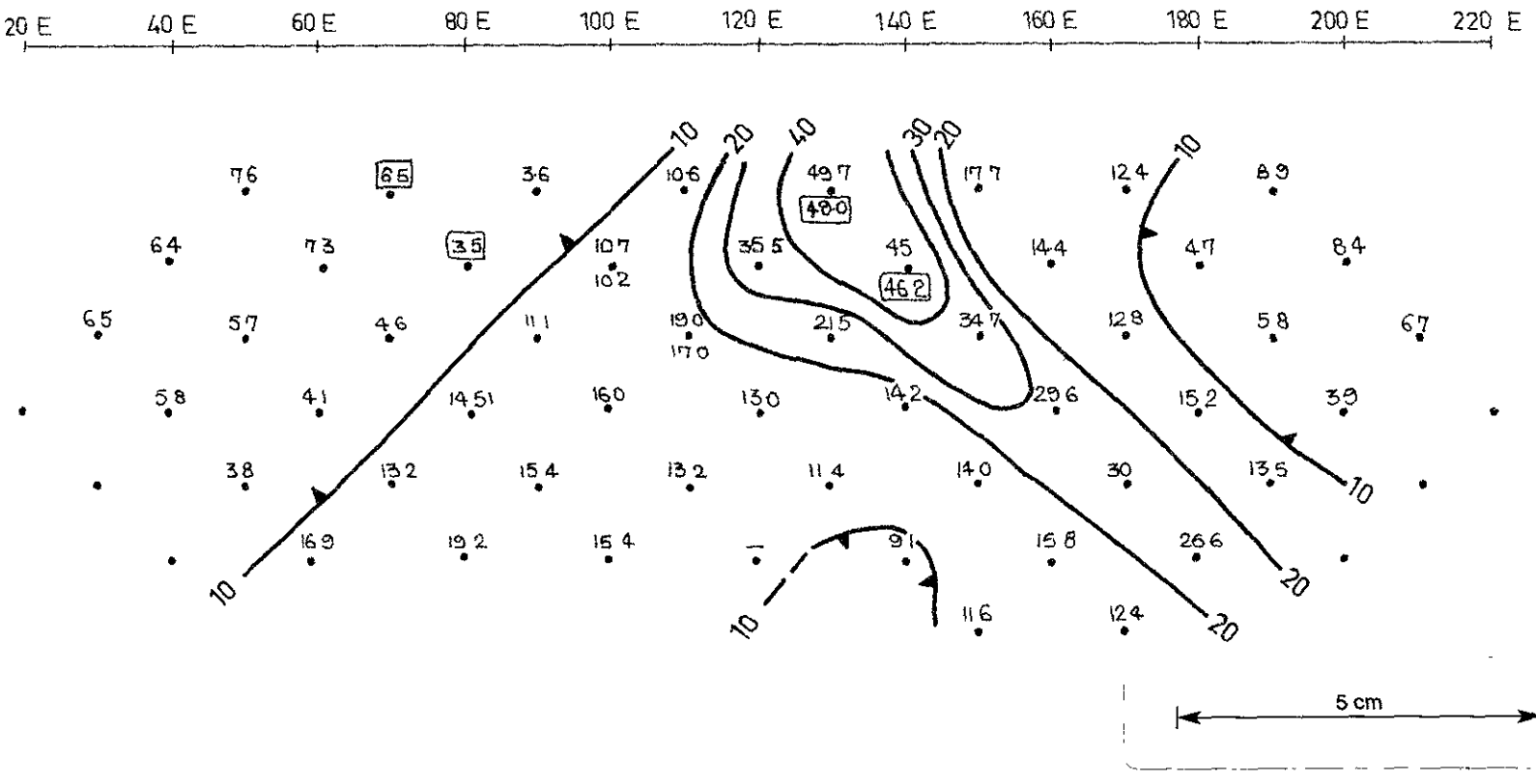
RESISTIVITY

OHM – METRES

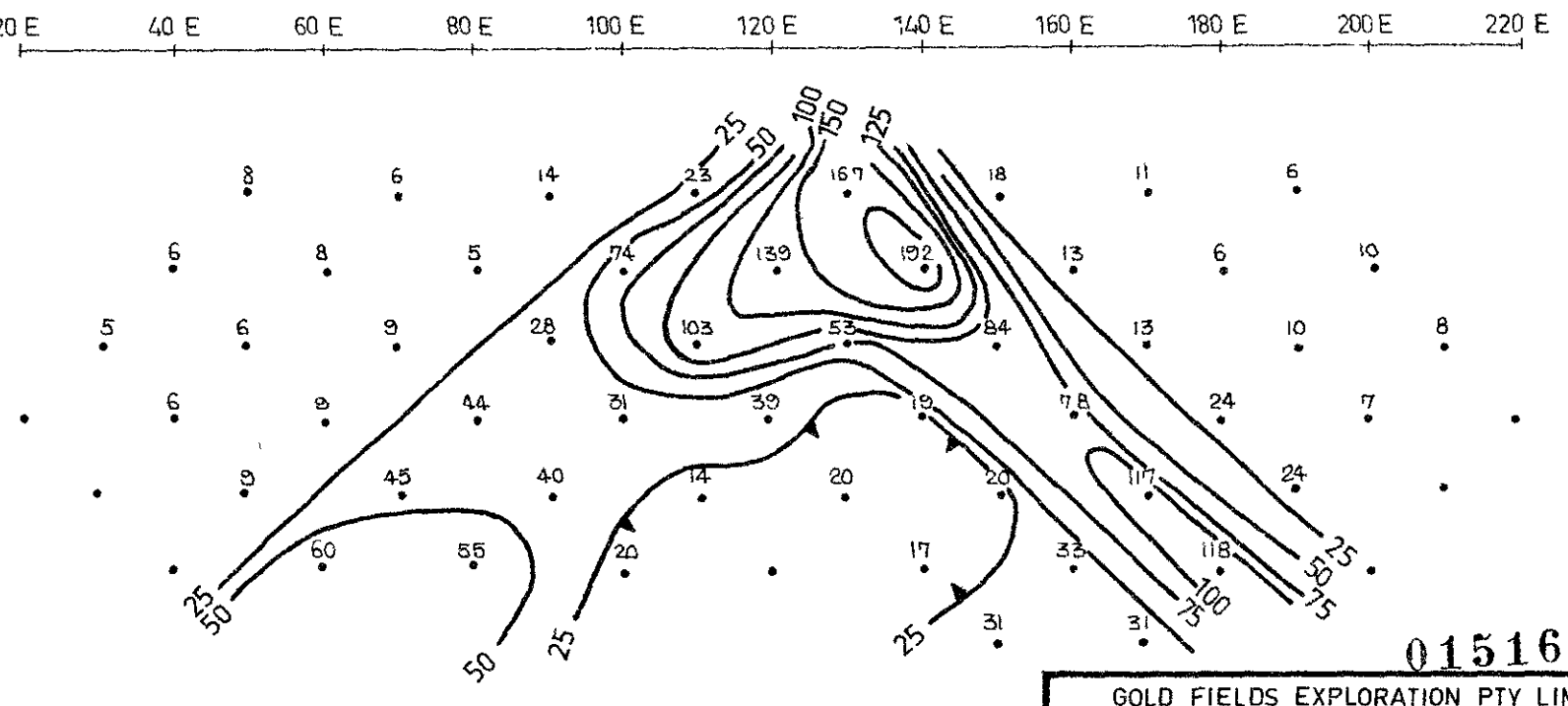


TOTAL CHARGEABILITY

50 ms – 1550 ms



METAL FACTOR



015169

Surveyed by : Mitre Geophysics
August 1985

Receiver : Huntec Mk IV
8 sec period
50 ms delay
150 ms windows.

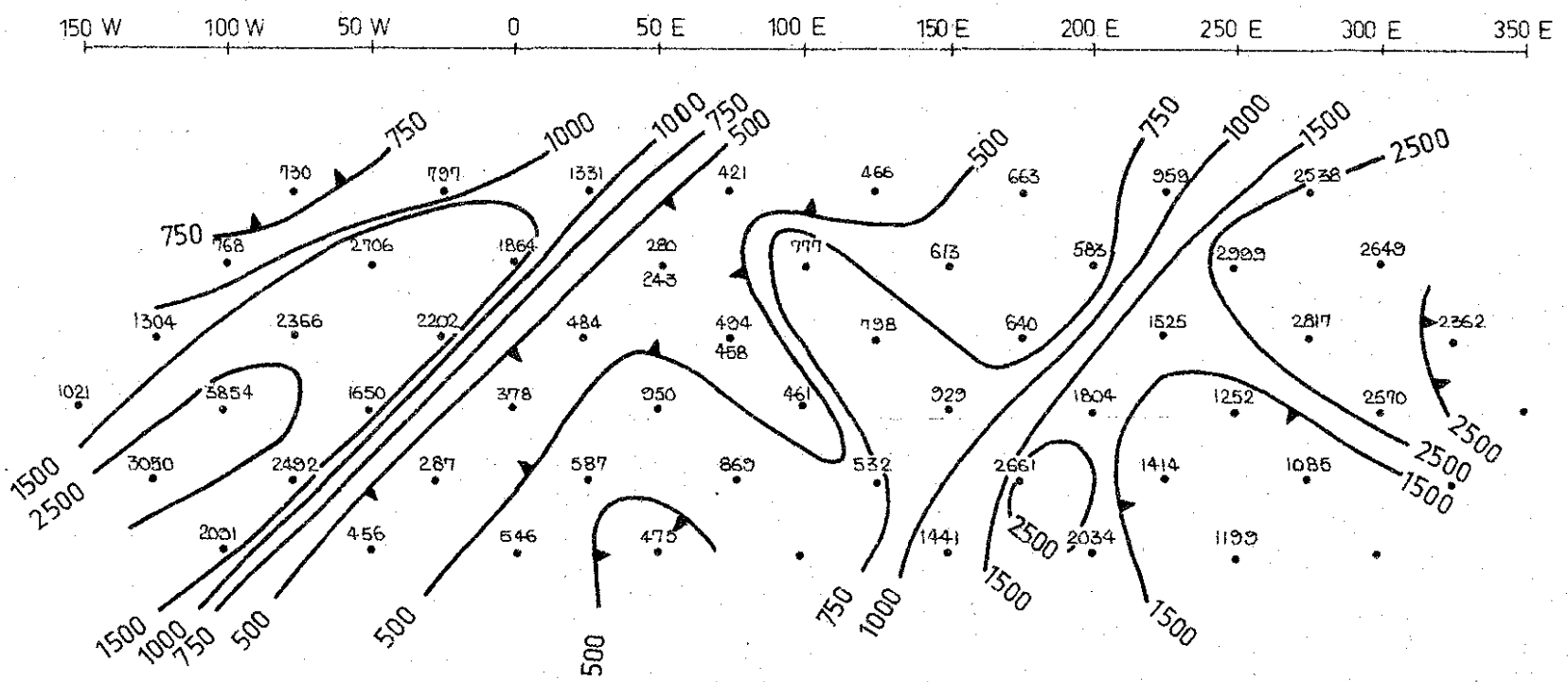
86-2565 3/3

GOLD FIELDS EXPLORATION PTY LIMITED	
E.L. 9/66 - TYNDALL PROJECT HENTY GRID LINE 50N 20m Dipoles	DRAWN BY JRB DRAFTSMAN EV DATE 19 8 '85 REVISIONS FILE NO
SCALE 1 1000 (10 0 10 20 Metres)	FIG 44j

5848

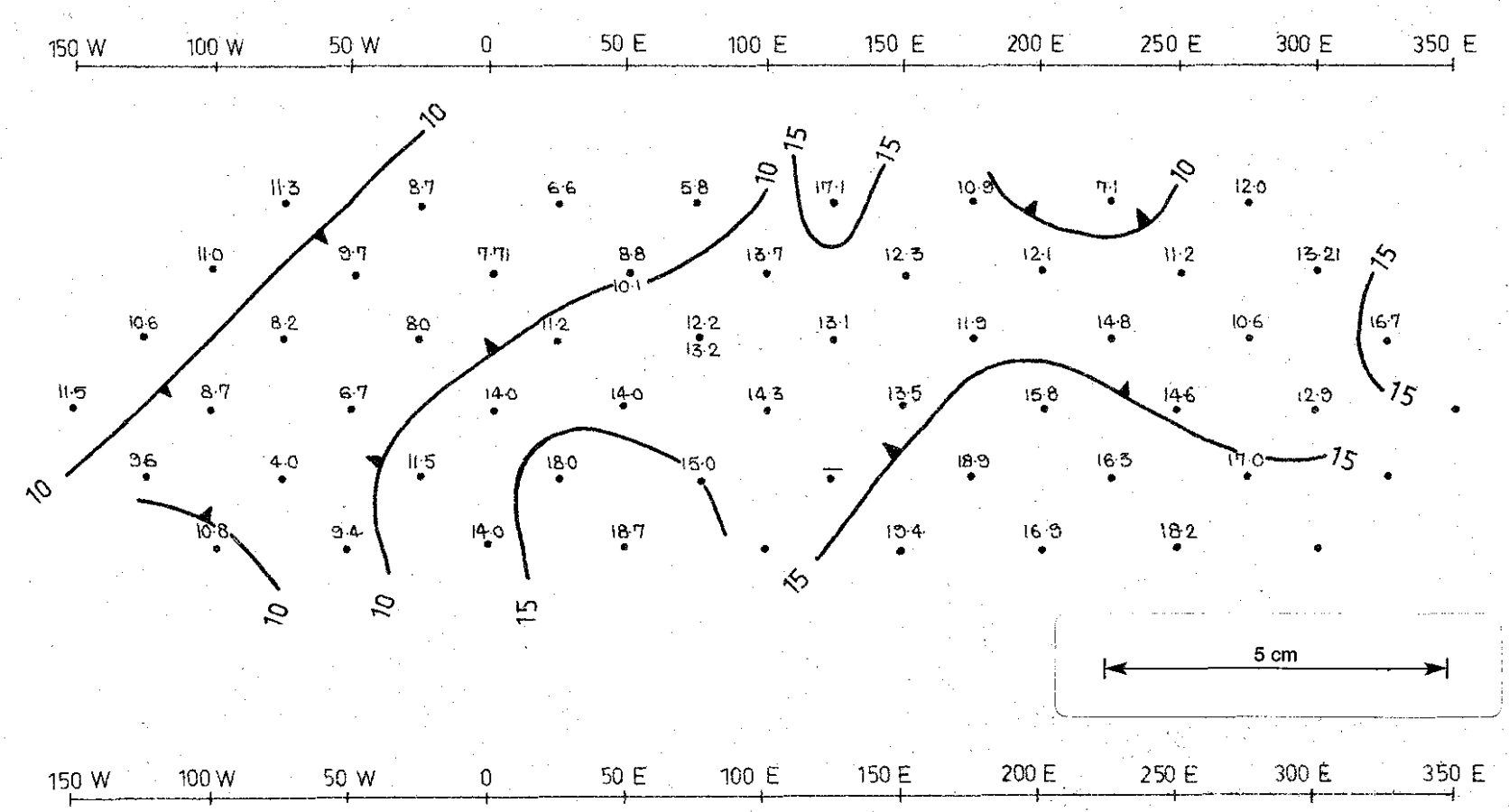
RESISTIVITY

OHM – METRES

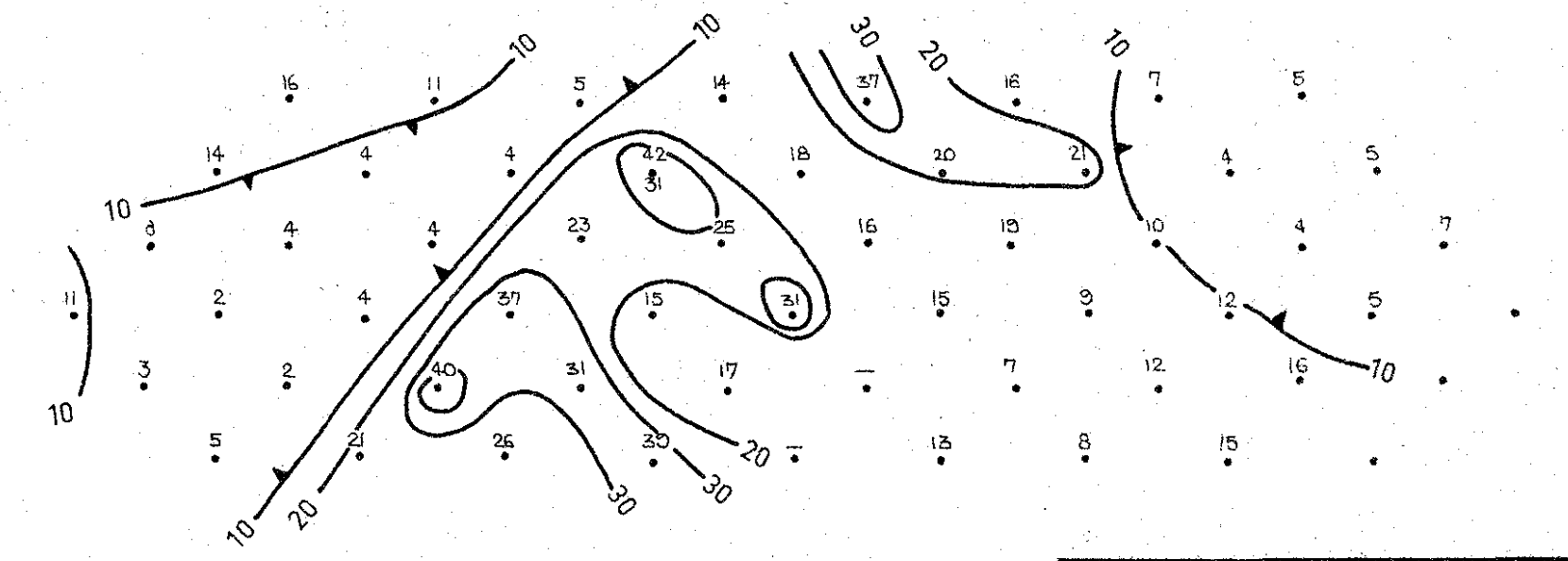


TOTAL CHARGEABILITY

50 ms – 1550 ms



METAL FACTOR



Surveyed by : Mitre Geophysics
August 1985

Receiver : Huntec Mk IV
8 sec. period
50 ms delay
150 ms windows

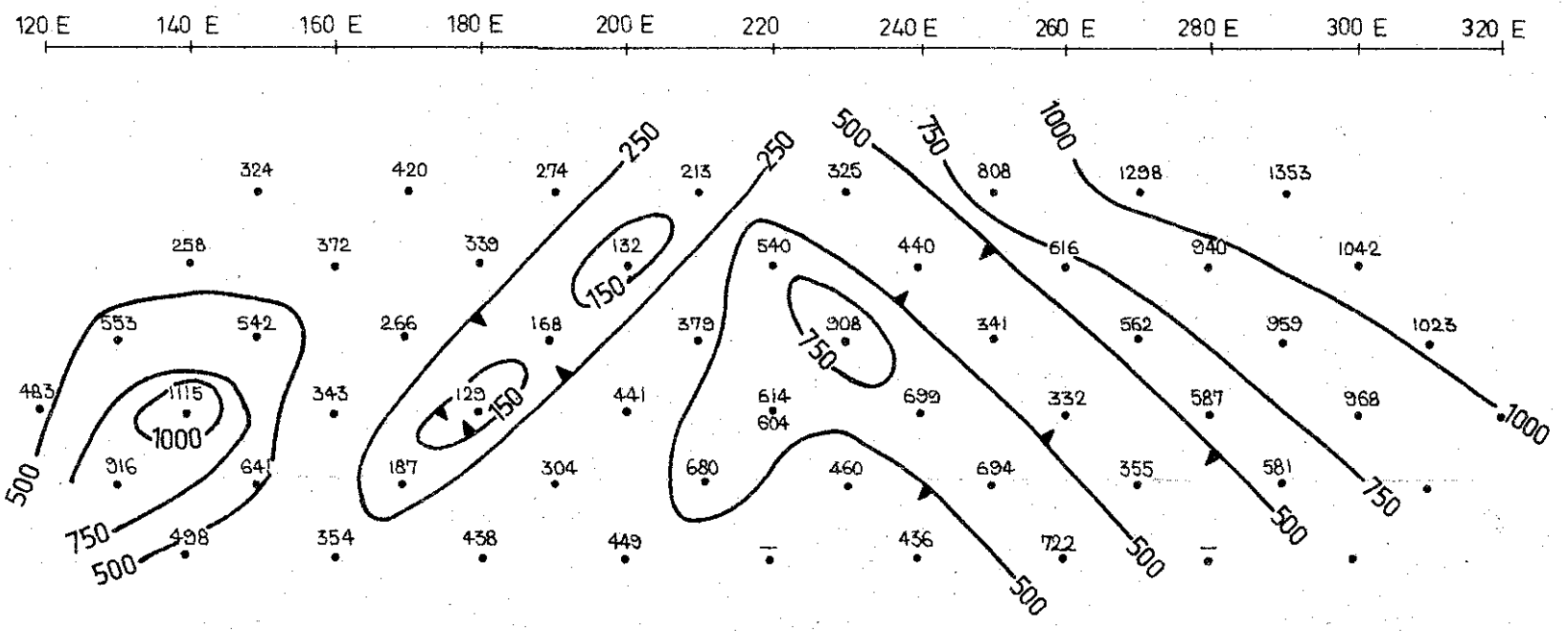
86-2565 3/3

GOLD FIELDS EXPLORATION PTY. LIMITED	
E.L. 9/66 - TYNDALL PROJECT HENTY GRID LINE 50N 50m Dipoles	DRAWN BY J.R.B. DRAFTSMAN: E.V. DATE 19:8:85 REVISIONS : FILE NO.
SCALE 1:2500 (25 0 25 50 Metres)	FIG 44ii

5849

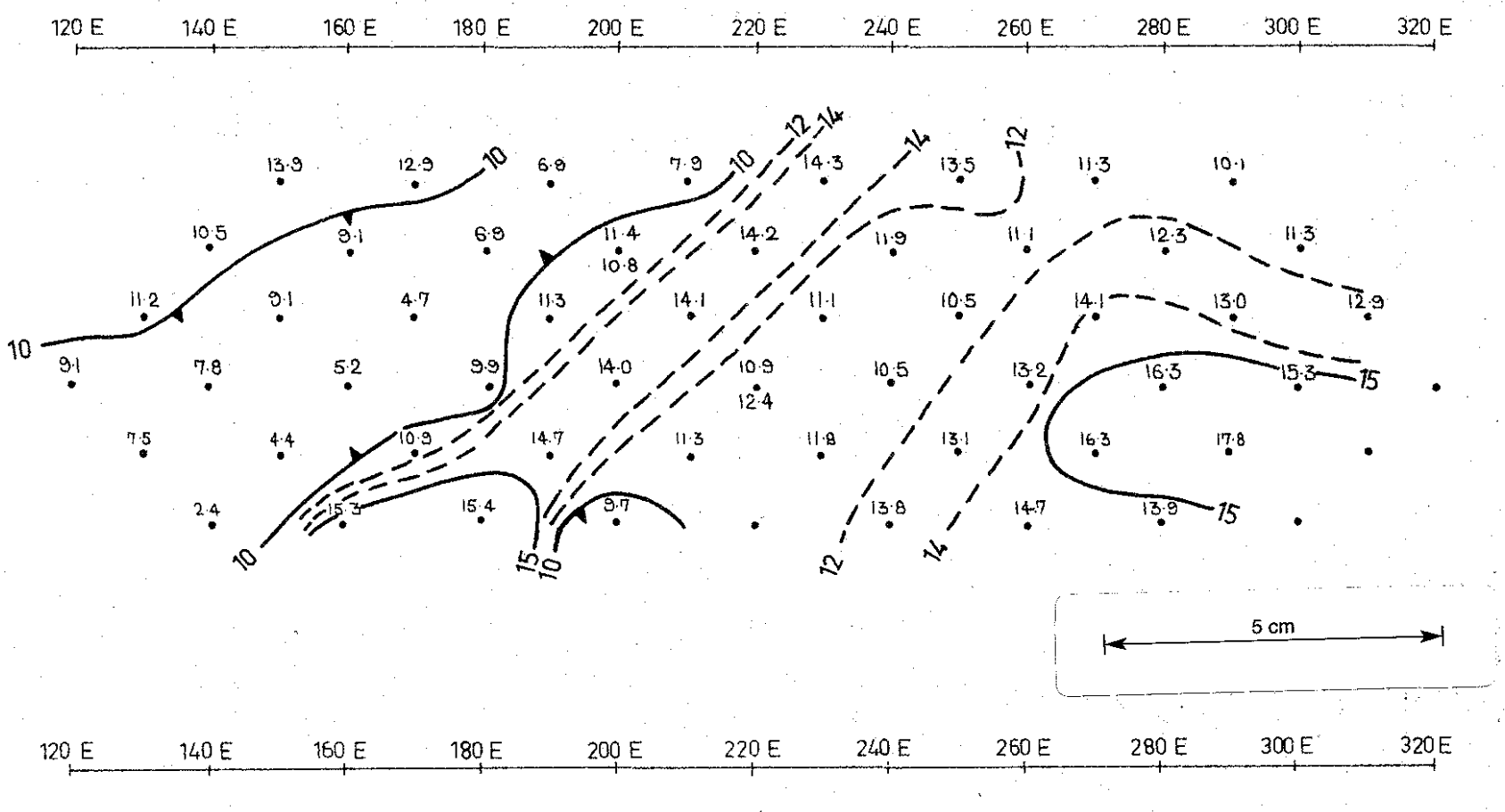
RESISTIVITY

OHM – METRES

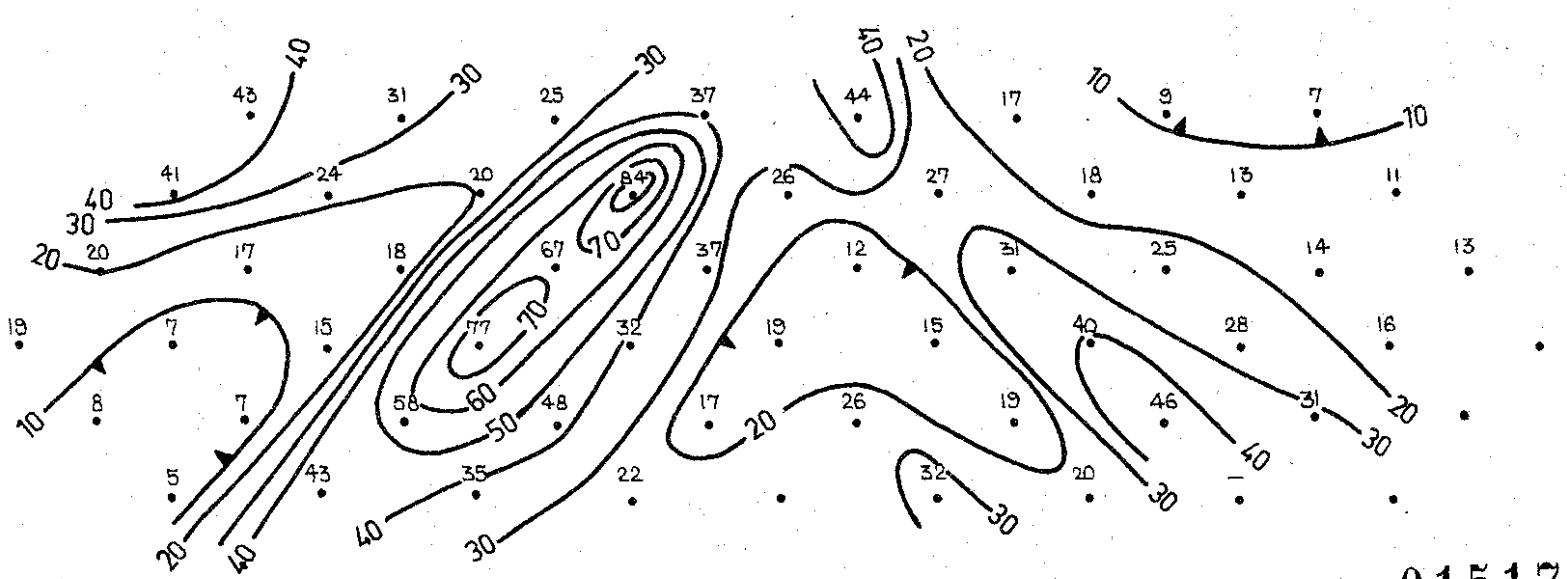


TOTAL CHARGEABILITY

50 ms — 1550 ms



METAL FACTOR



015170

Surveyed by : Mitre Geophysics
August 1985

Receiver : Huntec Mk IV
8 sec. period
50 ms. delay
150 ms windows

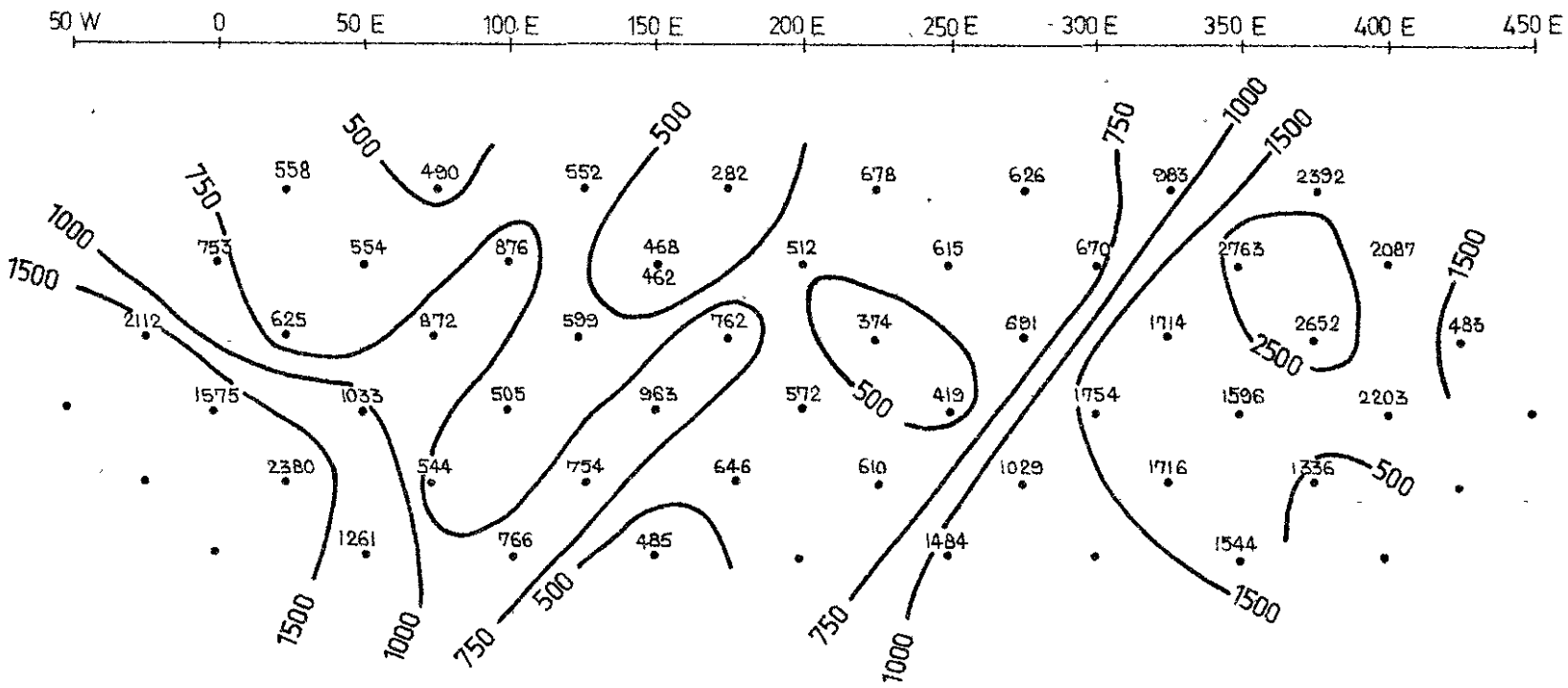
86-2565 313

GOLD FIELDS EXPLORATION PTY. LIMITED	
E.L. 9/66 - TYNDALL PROJECT HENTY GRID LINE 51N 20 m Dipoles	DRAWN BY : J.R.B. DRAFTSMAN: E.V. DATE 19:8:'85 REVISIONS : FILE NO.
SCALE 1:1000 (Metres: 10 0 10 20)	FIG. 44iii

5850

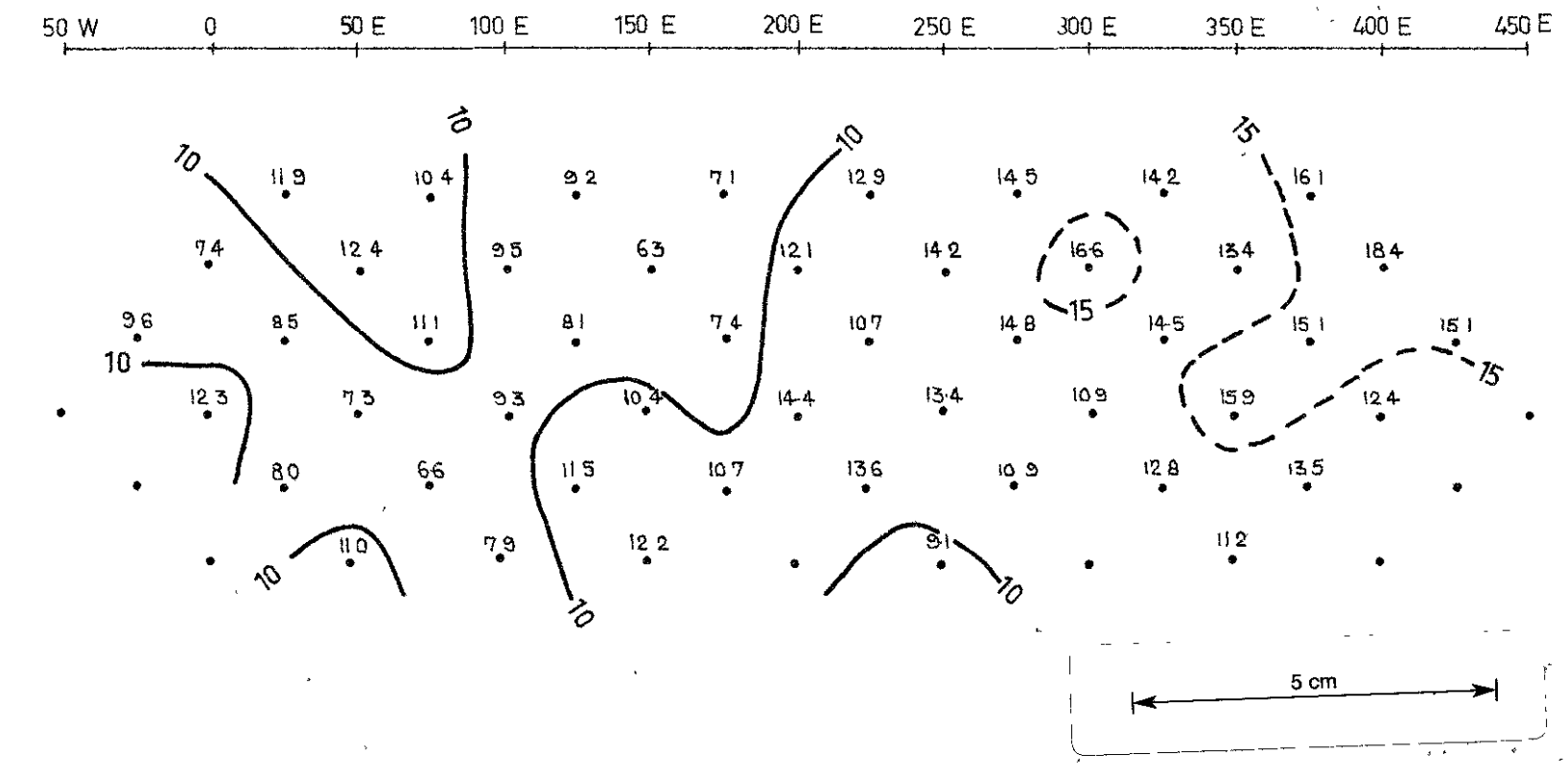
RESISTIVITY

OHM – METRES

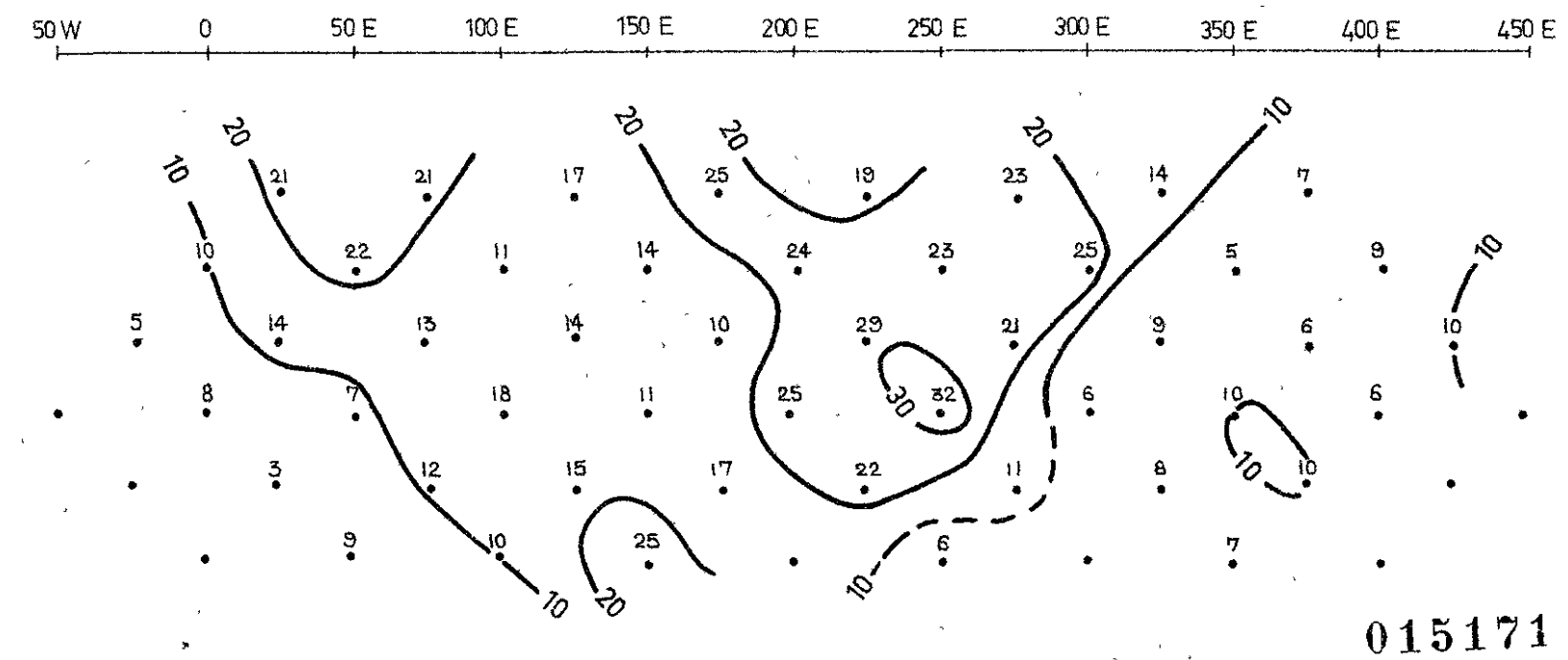


TOTAL CHARGEABILITY

50 ms — 1550 ms



METAL FACTOR



Surveyed by : Mitre Geophysics
August 1985

Receiver : Huntec Mk IV
8 sec period
50 ms delay
150 ms windows

86-2565 3/3

015171

GOLD FIELDS EXPLORATION PTY LIMITED		
E.L. 9/66 - TYNDALL PROJECT HENTY GRID LINE 51N 50m Dipoles		DRAWN BY JRB DRAFTSMAN EV DATE 19·8·85 REVISIONS FILE NO
SCALE 1 2500	25 0 25 50 Metres	FIG. 44iv

5851

5852

5364 500mN | 5364 400mN | 5364 300mN | 5364 200mN | 5364 100mN | 5364000mN | 5363 900mN | 5363 800mN | 5363 700mN | 5363 600mN | 5363 500mN

700m R.L.

SURFACE TRACE OF SULPHIDIC ALTERATION ZONE

Henty River

600m R.L.

500m R.L.

400m R.L.

300m R.L.

200m R.L.

100m R.L.

HP 9
0.5m x 0.12 g/t
1.2m x 0.13 g/t
5.0m x 4.4 g/t
1.8m x 17.4 g/t

HP 8
3.3m x 0.80 g/t
0.9m x 2.17 g/t
0.9m x 0.10 g/t

HFZ 11

HFZ 5
5.2m x 7.85 g/t

HFZ 6
0.5m x 2.0 g/t
2.5m x 0.6 g/t

HP 6
0.9m x 0.20 g/t
6.0m x 2.43 g/t
2.6m x 4.15 g/t
0.9m x 0.92 g/t
0.9m x 0.14 g/t

HP 5 HP 5A
0.8m x 0.27 g/t
1.6m x 0.23 g/t
7.4m x 0.23 g/t
7.4m x 0.82 g/t
0.8m x 0.58 g/t
0.8m x 0.19 g/t

HP 4A
2.4m x 0.54 g/t
6.3m x 7.86 g/t
1.8m x 0.77 g/t
2.7m x 17.60 g/t
1.8m x 1.31 g/t
0.9m x 1.39 g/t
10.2m x 2.95 g/t
5.4m x 7.69 g/t
4.5m x 4.23 g/t
1.8m x 10.17 g/t
0.9m x 1.83 g/t
4.5m x 0.95 g/t
1.8m x 7.09 g/t
1.8m x 0.20 g/t
1.8m x 0.92 g/t
7.2m x 2.01 g/t
2.6m x 3.43 g/t

HP 4

HP 1
11.2m x 0.30 g/t
0.9m x 0.68 g/t
0.9m x 1.14 g/t
0.9m x 0.95 g/t
4.7m x 1.37 g/t
1.8m x 2.55 g/t
0.9m x 1.41 g/t

HFZ 9
0.9m x 1.35 g/t

HFZ 10
1.7m x 0.20 g/t
0.6m x 7.15 g/t
4.8m x 1.45 g/t
1.3m x 4.55 g/t

HP 7
14.8m x 0.79 g/t
0.8m x 1.83 g/t
3.9m x 1.92 g/t
3.7m x 0.52 g/t
0.8m x 0.16 g/t

HP 2
3.4m x 3.05 g/t
2.0m x 4.45 g/t
1.0m x 0.10 g/t
4.4m x 0.73 g/t
1.0m x 0.5 g/t

5 cm

86-2565 3b 015172 5852

SHEET REFERENCE

SHEET H9/3	SHEET H10/1

Notes

1. All thicknesses are true thicknesses
2. Longitudinal Projection Line has a bearing of 019° AMG
3. Northings refer to Longitudinal Projection Line (shown on the 1:1000 Structure Contour Plans)

KEY

Fault F.W.
Alteration F.W.

Sulphidic Alteration Zone
Fault F.W. — Alteration F.W.

End of hole (within alteration zone)

Significant Au Mineralisation Zone
Zone containing elevated Au assays

Au Grades: 0.5 g/t cut-off

Au Grades: 0.1g/t cut-off

GOLD FIELDS EXPLORATION PTY. LIMITED

E.L. 9/66 — TYNDALL
HENTY PROJECT
SHEET H9/3

LONGITUDINAL PROJECTION
Sulphidic Alteration Zone east of the Henty Fault

DRAWN BY	A.C.
DRAFTSMAN	S.F.
DATE	May, 86
REVISIONS	
FILE NO.	

SCALE 1:1000 — 20 10 0 20 40 METRES

FIG. 45

5852

5853

KEY

500 — STRUCTURAL CONTOURS – HENTY FAULT ZONE (F.W.)

500 — STRUCTURAL CONTOURS – SIGNIFICANT Au MINERALISATION ZONE (H.W.)

500 — STRUCTURAL CONTOURS – SIGNIFICANT Au MINERALISATION ZONE (F.W.)

MINERALISED ZONE CUT OUT BY HENTY FAULT

SHEET REFERENCE

H8 (1: 2000)
H9 (1: 2000) H9/3
H10 (1: 2000)

015173

5 cm

86 - 2565 3|3

5853

GOLD FIELDS EXPLORATION PTY LIMITED

EL 9/66 – TYNDALL PROJECT
HENTY AREA – SHEET H9/3

DRILL HOLE LOCATIONS

STRUCTURAL CONTOURS
HENTY FAULT ZONE (F.W.)
SIGNIFICANT Au MINERALISATION ZONE (H.W.)
SIGNIFICANT Au MINERALISATION ZONE (F.W.)

DRAWN BY	A.C
DRAFTSMAN	S.F
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REVISIONS	
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SCALE 1:1000	20 10 0 20 40 METRES
FIG.	46