GOLD FIELDS EXPLORATION PTY. LIMITED

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E.L. 26/85

NARRAWA

ANNUAL REPORT - 1986/87.

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GOLD FIELDS EXPLORATION PTY. LIMITED

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E.L. 26/85

NARRAWA

ANNUAL REPORT - 1986/87.

By: R.H. Roberts
Geologist.

November, 1987.

Circulation: R.G.C. (2)
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C.H. Whitehead (1)

G.F.E.L. Report No. T/87/14

GOLD FIELDS EXPLORATION PTY. LIMITED

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SUMMARY

E.L. 26/85 is held by Mr. C.H. Whitehead, and was issued to him on 20 November, 1985. Under an Agreement with Mr. C.H. Whitehead, Gold Fields Exploration Pty. Limited (G.F.E.L.) has been carrying out exploration on the licence since April 1986.

Work during the last twelve months has concentrated on the Dolcoath grid in the northern part of the licence. Rocks within the gridded area are predominantly Ordovician sediments. The sediments have been divided into four broadly mappable units: 1) Conglomerate (Roland Conglomerate), 2) Tubicolar Quartzite (Qtt), 3) Massive quartzite and psammopelite (Qt), 4) A mixture of pelite/psammopelite and calc-silicate hornfels (P/Cs). The calc-silicate-bearing units are considered to be transitional beds to the overlying Gordon Limestone. The sediments have been intruded by the Devonian Dolcoath Granite which outcrops on the eastern edge of the grid. Two major periods of folding have affected the rocks prior to intrusion of the granite. The grid has been mapped at 1:5000 scale, with the central area at 1:1000 scale. Higgs Workings and Narrawa Reward Mine have been mapped at 1:250 scale, and Packetts workings have been mapped at 1:1000 scale. Mineralisation in the workings appears to be closely associated with shearing in the rocks.

The Dolcoath grid has been soil sampled using both hand auger, and where necessary, wacker sampling techniques. The soils were assayed for Au, Cu, Pb, Zn, As. Major gold, gold-arsenic, and gold-base metal anomalies have been identified. The old workings were extensively channel sampled. High gold values were recorded from Higgs Mine and Higgs West. Exposed sulphide in Higgs Mine assayed 4.5 metres at 7.19g/tAu, and sampling in the Higgs West open cut averaged 6.61g/t Au. Systematic rock sampling was also carried out over the grid during mapping. Anomalous results in the rocks correlate in part with anomalies in the soils.

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A review of the geophysics carried out by C.R.A. over the Dolcoath grid has been completed by Dr. J. Bishop. Overlapping V.L.F. and U.T.E.M. anomalies correspond with mineralisation at the Higgs and Narrawa Reward Mines, and imply that significant along strike extensions exist in both areas.

Three drill holes, ND-1, 2, 3, were drilled on E.L. 26/85. The holes were targetted beneath the line of Higgs Workings along which high gold results had been achieved in channel sampling. The holes were spaced 100 metres apart. Gold values were disappointingly low in the drill core compared with surface values. However, anomalous gold values (greater than 0.1g/t Au) were intersected over wide intervals (e.g. ND-1: 20 metres @ 0.48g/t Au) vertically below the old workings.

Surface sampling and petrological descriptions indicate that the mineralisation and alteration is related to a multiphase pneumatolytic event associated with the intrusion of the granite and related porphyries. There appears to be an early Au-barren pyritic phase which has been followed by three stages of mineralisation:

1) a micaceous alteration associated with base metals,
2) a gold-bearing quartz phase,
3) a late stage greisen vein assemblage.

Assessment of the data accrued during the last twelve months is required. Further drilling is required both in the vicinity of the old workings, and on other soil and rock anomalies on the Dolcoath grid. Reconnaissance work should commence over the southern part of the licence. Expenditure during the twelve months prior to the renewal date (20/11/87) is expected to reach $185,000, and expenditure in the following twelve months is expected to be between $50,000 and $100,000.

CONTENTS

		Page No.
1.	INTRODUCTION	1
2.	LAND TENURE	2
3.	EXPENDITURE	2
4.	WORK COMPLETED	3
4.1	GEOLOGICAL MAPPING	3
4.1.1	HIGGS	5
4.1.2	NARRAWA REWARD MINE	6
4.1.3	PACKETTS WORKINGS	6
4.2	SOIL SAMPLING	6
4.3	ROCK SAMPLING	8
4.3.1	CHANNEL SAMPLING OLD WORKINGS	8
4.3.2	GRID SAMPLING	9
4.4	GEOPHYSICS	10
4.5	DRILLING	11
4.6	PETROLOGY	14
5.	CONCLUSIONS AND RECOMMENDATIONS	16
6.	REFERENCES	18

APPENDIX 1 G.F.E.L. Expenditure from Dec. 1986 to Sept. 1987

APPENDIX 2 Geochemical Assay Results and Descriptions

2.1 Soil Samples

2.2 Channel Rock Samples

2.3 Grid Rock Samples

APPENDIX 3 Interpretation of the Dolcoath grid geophysics, Narrawa (E.L. 26/85) - Dr. J.R. Bishop

APPENDIX 4 Drill logs and plots of N.D. - 1, 2, 3

APPENDIX 5 Petrological report by C.M.S.

005

LIST OF FIGURES

Figure No.	Description	
1.	Locality Map, 1:250,000 (in text)	
2.	Cethana Interpretive Geology,	1:25,000
3.	Cethana 2-2 Geological Interpretation,	1:5,000
4.	Cethana 2-2/C2 Factual and Interpretive Geology,	1:1,000
5.	Geological Cross Section Line 5600E,	1:5,000
6.	Higgs Workings Factual and Interpretive Geology,	1:250
7.	Narrawa Reward Mine Structure and Geology Interpretation,	1:250
8.	Packetts Workings Interpretive Geology,	1:1,000
9.	Cethana 2-2 Soil Geochemistry Rose Diagram,	1:5,000
10.	Cethana 3-2 Soil Geochemistry Rose Diagram,	1:5,000
11.	Cethana 2-2/C2 Soil Geochemistry Rose Diagram,	1:1,000
12.	Cethana 2-2 Soil Geochemistry Sample Locations,	1:5,000
13.	Cethana 3-2 Soil Geochemistry Sample Locations,	1:5,000
14.	Cethana 2-2 Soil Geochemistry Au,	1:5,000
15.	Cethana 3-2 Soil Chemistry Au,	1:5,000
16.	Cethana 2-2/C2 Soil Geochemistry Sample Locations,	1:1,000
17.	Cethana 2-2/C2 Soil Geochemistry Au, Cu, Pb, Zn, As,	1:1,000
18.	Narrawa Reward Mine Sample Numbers,	1:250
19.	Narrawa Reward Mine Au Geochemistry,	1:250
20.	Narrawa Reward Mine Cu Geochemistry,	1:250
21.	Narrawa Reward Mine Pb Geochemistry,	1:250
22.	Narrawa Reward Mine Zn Geochemistry,	1:250
23.	Narrawa Reward Mine Ag Geochemistry	1:250
24.	Narrawa Reward Mine As Geochemistry	1:250

006

LIST OF FIGURES

Figure No.	Description	
25.	Higgs Workings Sample Locations,	1:250
26.	Higgs Workings Au Geochemistry,	1:250
27.	Higgs Workings Pb Geochemistry,	1:250
28.	Higgs Workings As Geochemistry,	1:250
29.	Packetts Workings Sample Locations,	1:1,000
30.	Packetts Workings Au Geochemistry,	1:1,000
31.	Cethana 2-2 Rock Geochemistry Rose Diagram,	1:5,000
32.	Cethana 2-2/C2 Rock Geochemistry Rose Diagram,	1:1,000
33.	Cethana 2-2 Rock Geochemistry Sample Locations,	1:5,000
34.	Cethana 2-2/C2 Rock Geochemistry Sample Locations,	1:1,000
35.	Cethana 2-2 Rock Geochemistry Au,	1:5,000
36.	Cethana 2-2/C2 Rock Geochemistry Au,	1:1,000
37.	Geophysical Compilation,	1:5,000
38.	Dighem Magnetics and EM Anomalies,	1:25,000
39.	Ground Magnetics with Contours,	1:5,000
40.	Ground Magnetics with Contours,	1:1,000
41.	Photograph of Coloured Magnetic Contours	
42.	Photograph of Coloured Magnetic Contours (Truncated Range)	
43.	VLF Dip Angle Profiles,	1:5,000
44.	Filtered VLF Profiles,	1:5,000
45.	Filtered VLF Contours,	1:5,000
46.	VLF Dip Contours & Utem Responses,	1:1,000
47.	VLF Pseudosections,	1:2,500
48.	Extent of Dolcoath Granite, Sheehan (1969)	1:63,360
49.	Drill Hole Plot ND-1 (Appendix -4)	
50.	Drill Hole Plot ND-2 (Appendix -4)	
51.	Drill Hole Plot ND-3 (Appendix -4)	

GOLD FIELDS EXPLORATION PTY. LIMITED

NARRAWA ANNUAL REPORT.

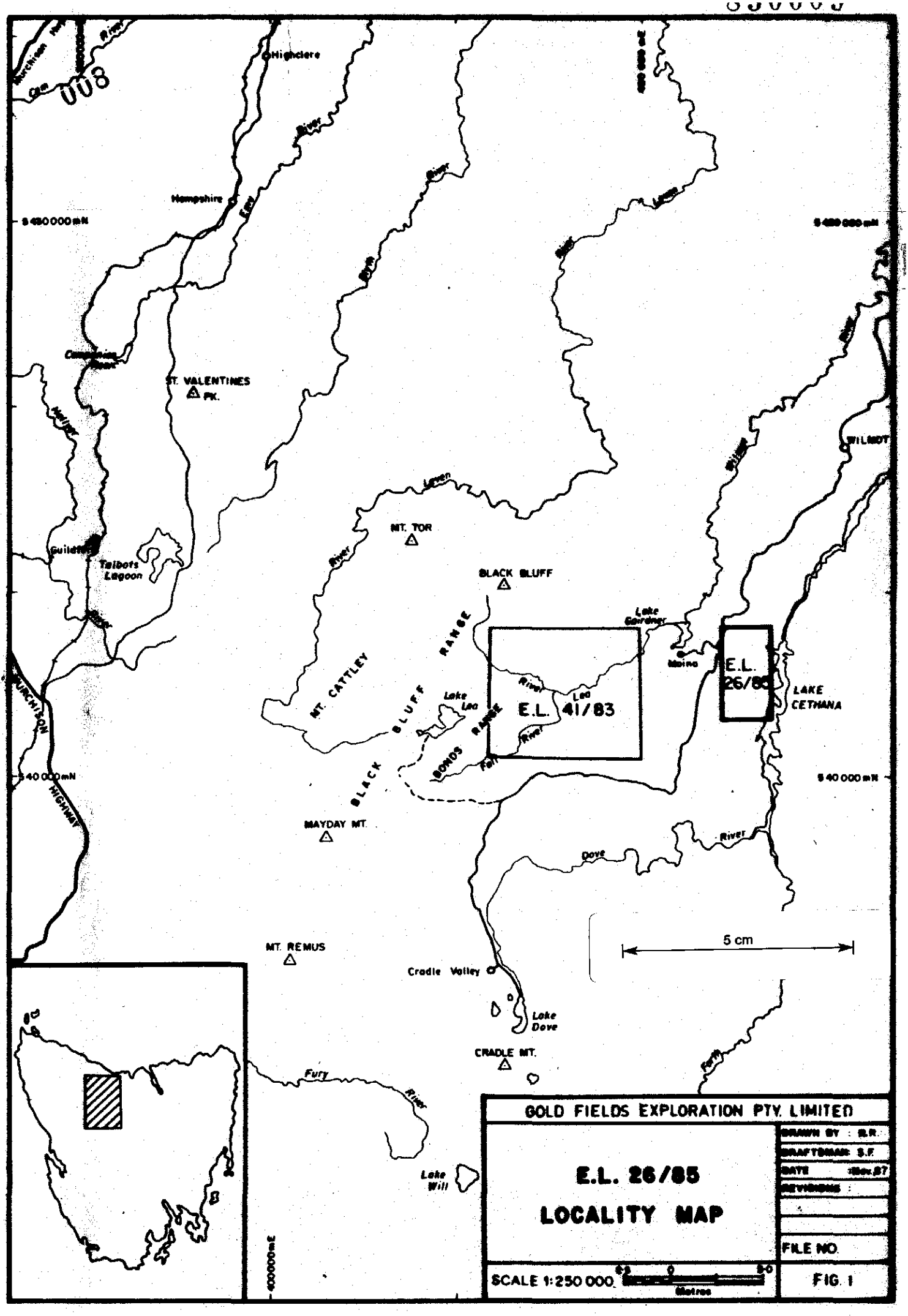
1. INTRODUCTION

E.L. 26/85 covers an area of 11 sq. km. on the western side of Lake Cethana (Figure 1) and is held by Mr. C.H. Whitehead. Cethana Road is on the northern limits of the licence, and the Wilmot Power Station is in the northeast corner. The Narrawa and Dolcoath Creeks drain eastward across that licence into Lake Cethana. The central and southern parts of the licence are reached via the Dolcoath Hill Road, while the Narrawa Reward-Higgs gold mining area is accessed by a dirt road which runs from Cradle Mountain Road, along the north side of Narrawa Creek.

The regional geology is shown at 1:25,000 scale in Figure 2. Undifferentiated Cambrian volcanics dominate the southern part of the licence. These are overlain to the north by Ordovician conglomerate (Roland Conglomerate) and a thick sandstone-rich sequence (Moina Sandstone). The Cambrian and Ordovician rocks have been intruded during the Devonian by the Dolcoath Granite and a series of associated quartz-feldspar dykes. Tertiary grey-billy and basalt are common in the region, but little Tertiary cover is evident in the northern part of the licence.

Many old mines occur in the district. Most deposits appear to be spatially and genetically related to the Dolcoath Granite. A metal zonation around the granite is postulated with tungsten, bismuth, molybdenum deposits occurring within or at the margins of the granite, gold and tin mineralisation further away, and an outer zone of Ag/Pb mineralisation represented by the Round Hill deposits. The Dolcoath Granite is thought to dip shallowly to the west, with cupola extensions being responsible for the skarn occurrences at Moina, Ti-Tree Creek and Stormont.

Mining commenced in the district around the 1880's. The first major report on mineral reposits in the Moina and Round Mount districts was written by Twelvetees (1913), with a second major report written by Reid (1919). Jennings (1979) gives a brief summary of deposits within the area, and provides a list of reports written on individual deposits. Two old gold mines, Higgs and Narrawa Reward, occur in E.L. 26/85. The Narrawa Reward Mine was worked prior to 1913, with values of up to 6 g/t Au being reported in the sulphide ore. Mining at Higgs did not begin until 1934, and continued intermittently until 1947. A total of 28.35 kg of gold is estimated to have been recovered during this period.



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E.L. 26/85

LOCALITY MAP

DRAWN BY : S.R.

DRAFTSMAN: S.F.

DATE : Nov.87

REVISIONS :

FILE NO.

SCALE 1:250 000

FIG. 1

The present licence area was previously part of E.L. 8/65 which was explored by the Mt. Lyell Mining and Railway Co. Ltd. until 1973. In March 1973 the area became part of E.L. 7/73 applied for by Ararco (Aust) Pty. Ltd.. C.R.A. joint ventured into the E.L. in 1976, and title was transferred to them in 1977. During 1981/82 extensive exploration was carried out over the northern part of the present E.L. 26/85, including construction of the Dolcoath grid. Exploration undertaken by C.R.A. on this area was focused primarily on tin and base-metal mineralisation.

Gold Fields Exploration Pty. Limited (hereafter referred to as G.F.E.L.) is presently testing the gold potential of E.L. 26/85, which was apparently missed by the recent exploration carried out by C.R.A.. G.F.E.L. commenced work on the E.L. in 1986. Compilation of the previous C.R.A. data, plus results of early reconnaissance rock sampling were outlined in the 1985/86 Annual Report (Roberts, 1986). The aim of this report is to describe and document results of work carried out on E.L. 26/85 by G.F.E.L. since November 1986.

2. LAND TENURE

E.L. 26/85 was granted to Mr. C.H. Whitehead on 20th November, 1985. An agreement on E.L. 26/85 was reached between C.H. Whitehead and Renison Limited (a wholly-owned subsidiary of Renison Goldfields Consolidated) on 17th April 1986. Gold Fields Exploration Pty. Limited (the exploration division of R.G.C.) has carried out exploration on the licence since this date under the terms of the Agreement. Two mining leases, 13M/85 and 22M85, which lie partially within E.L. 26/85, have been excluded from the Exploration Area under the terms of the Agreement.

3. EXPENDITURE

Expenditure by G.F.E.L. on E.L. 26/85 within the current renewal year to the end of September 1986 has been 166,226 (Appendix 1). Expenditure to the renewal date is expected to reach $185,000.

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4. WORK COMPLETED 1986/87

4.1 GEOLOGICAL MAPPING

The Dolcoath grid has been mapped at 1:5000 scale (Figure 3), with the central area of the grid between lines 5600E to 6100E, and from 4800N to 5200N, being mapped at 1:1000 scale (Figure 4). Regionally, the grid covers an area of Ordovician sediments within a broad east-west (A.M.G.) trending syncline (Figure 2). The sediments are flanked to the north and south by underlying Cambrian volcanics, with the volcanics identified at the far southern end of the grid.

Broad mappable units have been recognised in the Ordovician sediments as described below.

Cgl: A thin band of conglomerate (Roland Conglomerate) occurs between the Cambrian volcanics and quartzites on the southern part of the grid. Conglomerate has also been mapped on the south-western end of the grid, but may not be part of the basal unit.

Qtt: This unit comprises a mixture of massive quartzites, tubicolar quartzites, pebbly quartzites, and layered quartzites to psammopelites. Thin pelite bands occur within the quartzites, as exposed along Cethana Road, but are not apparent on the grid. This sequence appears to form the lower part of the Moina Sandstone Formation. The quartzites can be rich in pyrite in parts.

Qt: Predominantly massive quartzites and psammopelites, and is distinguished from the broad sequence of quartzites described above by its general lack of sedimentary features. The rocks in this unit are commonly silicified and pyritic. Because of the silicification and bleaching, psammopelitic units can often be difficult to distinguish from quartzites.

P/Cs: A mixture of pelitic, psammopelitic and calc-silicate hornfelses. The pelites are contact metamorphosed to biotite, cordierite and garnet-bearing hornfelses. The calc-silicates range from minor calc-silicate veining, typically in quartzites and metagreywackes, to banded calc-silicate hornfelses and skarns. Minor pyrite, pyrrhotite and

011

chalcopyrite often accompanies the calc-silicate rocks. Garnet (grossular-andradite) - diopside, magnetite-diopside and magnetite-actinolite skarns have been identified and probably represent metasomatic replacement of carbonate-rich horizons.

The P/Cs and Qt units are considered to form the upper part of the Moina Sandstone Formation and are transitional to the overlying Gordon Limestone.

The regional influence of the early east-west (A.M.G.) folding is demonstrated by the transitional beds predominantly outcropping along the Narrawa Creek valley. A later northwest-southeast (A.M.G.) open folding episode, with fold axes sub-parellel to the baseline (110° MN), has over-printed this earlier event, and most structural features measured on the grid can be related to this second period of folding (Figure 3).
The northwest-southeast folding appears to have been a brittle event with faults occurring sub-parallel to the fold axial planes, and typically cutting out the fold hinge zones. This feature is demonstrated on the geological cross section of line 5600E (Figure 5). Shearing sub-parallel to northwest-southeast fold axes is also apparent in the old workings and appears to be a major control on mineralisation in the area.
The folding and faulting is considered to have taken place during the Tabberabberan Orogeny.

The Dolcoath Granite and associated quartz-feldspar porphyry dykes intruded the Cambrian and Ordovician rocks after the main period of faulting and folding. The granite outcrops on the eastern edge of the grid, but gravity data (Sheehan 1969) implies that the granite lies shallowly beneath the whole Moina district. Present mapping and sampling has confirmed that mineralisation in the area is genetically related to intrusion of the Dolcoath Granite. The porphyry dykes have intruded into the transition beds along the main northwest-southeast structual direction.

Only minor Tertiary cover occurs on the grid. A geothite/laterite-rich gossan occurs at the northern end of the grid. Its age and relationship to mineralisation is still uncertain.

4.1.1 HIGGS

1:250 scale mapping has been completed around the Higgs Workings (Figure 6). Rocks within the old workings are typically oxidised, limonitic quartzites. Bands of pelitic to psammopelitic rocks occur within the quartzites, and a good sequence of well bedded pelites, psammopelites and pebbly sandstone was exposed on draining adit 1 in Higgs Workings. Puggy clay zones in the workings appear to represent strongly altered original pelite units.

Shearing is well developed in the rocks especially in the Higgs Mine and at West Higgs (Figure 6). The main drives in Higgs Mine are bounded by two major shear zones, clearly exposed in the upper collapsed section of the mine. Further sub-parallel shears occur to the north and south of the main mine workings. The shears gradually curve in strike along the length of the mine and vary in dip from 60° to 70° to the north. Thin clay zones mark the shears within the quartzites. The quartzites are strongly oxidised, bleached and possibly silicified which makes recognition of their original composition difficult to assess. The high limonite content is apparently derived from sulphide mineralisation. Sulphides are exposed in the eastern end of the workings and in a small creek ten metres further to the east. Pyrite, galena, sphalerite and chalcopyrite assemblages occur both veined and disseminated in fine-grained to pebbly quartzites. At West Higgs open cut (C7) the quartzites are strongly fractured, with limonite derived from sulphide filling the fractures. Silicification does appear to accompany the sulphide mineralisation as exposed in adit 1 at West Higgs.

4.1.2 NARRAWA REWARD MINE

The Narrawa Reward Mine was mapped at 1:250 scale (Figure 7). The main rock type is a highly silicified and mineralised quartzite, though the original rock composition is now difficult to assess. A small zone of pelite (almandine garnet bearing), clay and metagreywacke occurs at 15 to 20 metres from the entrance. Porphyries have also been mapped in cross-cut 3 and along the northern wall of the western end of the main drive. Steeply dipping shears can be mapped along the length of the mine and again appear to be a major control on mineralisation. Patchy sulphide mineralisation (5-10%) occurs throughout the mine with a massive sulphide zone (>50%) occurring around cross-cut 1. Unlike the mineralisation at Higgs Mine, the main sulphide is arsenopyrite associated with patches of chalcopyrite, pyrite, sphalerite and galena. The porphyry at the end of the main drive has been both sheared and mineralised.

4.1.3 PACKETTS WORKINGS

Packetts and West Packetts have been mapped at 1:1000 scale (Figure 8). A series of trenches have been dug both across and along strike in weathered, bleached quartzites and psammopelites. Thin clay/silt-rich zones occur within the quartzites, which may represent original more pelitic bands. Shearing appears to have occurred in these zones. Grey streaks (? relict pelite lenses) are typically evident in these clayey zones which consistently dip steeply to the north. These may reflect the orientation of either bedding or shearing.

4.2 SOIL SAMPLING

Results of orientation sampling at Narrawa indicated that hand-auger sampling would be effective over the Dolcoath grid. Consequently, the grid was sampled at 25 metre intervals (706 samples). Pits were dug at each sample site to get below the top soil and surface scree, and a hand-auger soil sample taken at the bottom of the pit. Samples were typically collected one metre below surface. Although a good coverage was achieved, during sampling it was recognised that parts of the grid were covered by thich (> 1 metre) skeletal sand cover

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apparently resulting from downslope wash of material derived from the quartzites. This was particularly evident in the area between and including Higgs Mine and Packetts Workings. Therefore a programme of deeper soil sampling using the wacker system (with a large head: diameter - 45 mm, length - 350 mm) was implemented, and a further 148 samples collected (116 from previously sampled sites). All the soil samples were assayed for Cu, Pb, Zn, As, Au. A compilation of results from the sampling is presented in Appendix 2.1. Coloured rose diagrams of the results are shown in Figures 9, 10 (1:5000) and 11 (1:1000). Sample location numbers and gold assay results are shown on Figures 12, 13, 14, 15 (1:5000) and Figures 16, 17 (1:1000).

A major Au-Pb anomaly occurs in the central part of the grid around the Narrawa Reward and Higgs Mine areas. The anomaly is approximately 250 metres wide and appears to be at least 400 metres long. The anomaly extends at least 75 metres south and uphill of the main line of Higgs workings. The soil geochemistry infers that the Narrawa Reward mineralisation has significant along strike extension, especially to the west, with major Au - Cu - Pb - Zn - As anomalies on both lines 5800E and 5700E. A similar style of Au - Pb rich anomalies corresponds with the line of Packetts workings.

Major Au - As plus base metal anomalies occur on the northeast part of the grid apparently associated with skarn in the pelitic and calc-silicate rocks. To the southwest of the Higgs-Narrawa Reward area is a major Au-only anomaly occurring in siliceous pyritic quartzites. A distinct Cu-Zn anomaly occurs at the far western end of the grid. This relates to calc-silicate hornfelses containing minor pyrrhotite and chalcopyrite. Similar Cu-Zn anomalies occur with other calc-silicates on the grid.

The geochemical anomalies occur predominantly in the upper (transitional) part of the Moina Sandstone. The Qtt unit is characterised by low soil geochemistry, except for occasional Pb values. A significant Pb anomaly is associated with the gossan/laterite at the northern edge of the grid. Low gold values occur in soils over the granite, especially in strongly greisenised sections. Gold anomalism is also associated with the Dolcoath Mine at the southern end of the grid.

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4.3 ROCK SAMPLING

4.3.1 CHANNEL SAMPLING OLD WORKINGS

Extensive channel sampling was undertaken within the old workings. Sampling was carried out using an air-compressor-driven jack hammer, and in total involved collection of approximately 750 metres of rock in 350 samples. The rocks were analysed for Au, Cu, Pb, Zn, Ag, As, Sn, W, Mo. All results are recorded in Appendix 2.2. The following areas were sampled.

NARRAWA REWARD

Sample location numbers and assay results for Au, Cu, Pb, Zn, Ag, As are shown in Figures 18 - 24. The following zones were defined on a 0.5g/t Au cut-off.

Interval (m)	Distance (m)	Grade (g/t Au)
Nth Wall		
2 - 6	4	3.1
16 - 36	20	1.3
Sth Wall		
6 - 10	4	1.17
16 - 48	32	1.98
X-Cut 1 Average	3	1.98

Combined base-metal values are greater than 5% in some samples. However, the mineralisation is typically arsenopyrite rich with one sample recording 17% As. There appears to be three styles of superimposed mineralisation:
Pb-Zn-Ag; Cu-Ag; Au-As.

HIGGS

Sample location numbers and assay results for Au, Pb, As are shown on Figures 25 - 28. High-grade gold values occur throughout the collapsed stope area of Higgs Mine. The south face of the mine averages 2.32 g/t Au over 50 metres. A pillar left in the west end of the mine averaged

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9.17 g/t Au over 2 metres. Channel sampling across the exposed sulphides at the east end of the mine returned 4.5 metres at 7.19 g/t Au, and sulphide mineralisation in the creek to the east of the workings averaged 7.87 g/t Au in the 8.5 metres of rock sampled.

Sampling of the workings along the south side of Narrawa Creek (Higgs Workings) returned several values of greater than 1g/t Au in cut 1 (C1) and cut 2 (C2) (Figure 26) with two samples greater than 5 g/t Au.

Twenty two samples (41 metres) were collected from the open cut (C7) at West Higgs. The sampling averaged 6.61 g/t Au with one sample (1.3 metres wide) containing 58.7 g/t Au. Other values of greater than 1g/t Au were recorded from other trenches at West Higgs.

There appears to be two styles of mineralisation within the workings, one a gold-base metal style with low arsenic values, and a second Au-As association with low base-metal values. Channel sampling along Narrawa Road outlined 11 metres at 2.17 g/t Au from 920 metres to 931 metres (Figure 26). Gold values along the remainder of the road were typically below 0.1g/t Au.

PACKETTS

Sample locations and assay results for Au are shown on Figures 29, 30. Several values of greater than 0.1g/t Au were recorded within Packetts workings with one sample returning 1.1g/t Au. The anomalous gold values closely correlate with the finer-grained zones in the quartzites which show some evidence of shearing.

4.3.2 GRID SAMPLING

Comprehensive rock sampling was carried out during mapping of the Dolcoath grid. The rocks were analysed for Au, Cu, Pb, Zn, Ag, As, Bi, Sn, W, Mo. The Au, Cu, Pb, Zn, As, Bi results are presented on rose diagrams in Figures 31, 32. Sample locations and gold assay results are shown on Figures 33 - 36. All results are tabled in Appendix 2.3. Anomalous rocks occur in the Higgs-Narrawa area outside the main workings. Limonitic, vuggy quartzites with greater than 0.1g/t Au occur west of the Narrawa Reward mine on lines 5800E and 5700E, corresponding with the highly anomalous soil assays in this area. A distinct Au-Bi anomaly occurs in the northeast corner of the grid

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in greisen-veined sediments and magnetite-bearing calc-silicates. One calc-silicate/skarn sample (T4700) recorded 0.78 g/t Au, 0.24% Pb, 1.85% As and 140 ppm Bi. The anomalous rocks appear to lie on an east-west trend which passes through Black's Lower Shaft. Anomalous Au-Bi have also been obtained from quartz-wolfram and quartz-molybdenite veins in the greisenised granite, and values of 0.97g/t Au and 0.25% Bi were returned from a greisenised, pyritic granite off the dump at Blacks Lode. The strong correlation between Au and Bi in the rocks is shown across the grid.

4.4 GEOPHYSICS

A Dighem survey was flown for C.R.A. in February 1981. This work was followed up by ground magnetics, V.L.F. and U.T.E.M. surveys over the Dolcoath grid. A review of the geophysical surveys carried out by C.R.A. has been completed by Dr. J. Bishop. This is included as Appendix 3. Figures 37 - 48 are referred to in his report (Tables 1 and 2 are also included). As part of this review Gold Fields covered the intermediate lines with magnetics and V.L.F., and completed the V.L.F. coverage on line 6100E. This data has been tied in and added to the C.R.A. results.

A broad zone of disturbed magnetics trends northeast-southwest across the grid. (A.M.G. east-west). This zone is broadly coincident with the pelite/calc-silicate rich sequence interpreted to be the upper part of the Moina Sandstone Formation. Major highs in the magnetics correspond with magnetite-bearing calc-silicates. The known occurrences of gold-bearing mineralisation and the majority of soil anomalies (Figure 9) occur within this disturbed band of magnetics.

Overlapping V.L.F. and U.T.E.M. anomalies correspond with the mineralisation at the Higgs and Narrawa Reward Mines, and suggest significant along strike extensions to both areas. A drill hole targeted beneath 6100E/4960N to test the eastern extension of Higgs workings has been recommended by Dr. J. Bishop. A compilation of the ground magnetics and E.M. data (especially V.L.F.) should assist in interpreting the region's structure.

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4.5 DRILLING

Three diamond drill holes were drilled on the Narrawa licence during the year. The objective of the holes was to intersect gold mineralisation 50 to 60 metres down-dip from a line of surface gold mineralisation, previously indicated by channel sampling. The holes were drilled approximately grid south (200°MN) and were spaced 100 metres apart, being sited on lines 5750E, 5850E and 5950E respectively. ND-1 drilled beneath high-grade gold values at West Higgs. HD-2 drilled beneath Higgs Workings, and ND-3 drilled beneath the eastern end of Higgs Mine.

HOLE NO.	SITE	AZIMUTH (M.N.)	DIP	DEPTH (E.O.H.) (M)	BEGAN	ENDED
ND-1	5750E/4940N	197°	-55°	134.3	29.5.87	9.6.87
ND-2	5850E/4940N	199	-55°	121.0	10.6.87	18.6.87
ND-3	5950E/4950N	200	-50	128.5	18.6.87	26.6.87

Surface plans of the holes are plotted on the geological interpretive maps (Figures 3 and 4). Drill hole plots (Figures 49, 50, 51) and logs (including assays) for ND1, 2, 3 are included as Appendix 4. Brief summaries of the holes are given below.

ND-1

Dominantly a sequence of quartzites, psammopelites and pelites. A calc-silicate-bearing unit occurs from 18.9 to 27.7 metres. The hole ended in conglomerate. A zone of brecciated pyritic quartzites occurs from 60 to 65.5 metres. Structurally this appears to be the down-dip extension of the gold-rich brecciated, quartzites sampled in West Higgs open cut. Patchy disseminated and veined base-metal mineralisation (up to 1-2%) occurs in more pelitic zones. Veins up to 0.5cm wide, containing quartz-pyrite-sericite-talc (?clay-chlorite) with minor galena, sphalerite and chalcopyrite, occur from 65.5 to 121 metres.

Gold grades were generally low with the following zone defined on a 0.1g/t cut-off.

Depth (m)	Interval Width (m)	Grade Au (g/t)
83-103	20	0.48

019

The zone includes 1 metre from 92 to 93 metres containing 6.18g/t Au. The interval from 83 to 103 metres corresponds with patchy veining containing minor base-metal mineralisation.

ND-2

The top of the hole drilled through 27 metres of calc-silicate bearing quartzite, psammopelite and pelite, plus a laminated pelite-rich band is present from 97 to 112 metres. The remainder of the hole is in quartzites and psammopelites. Two small zones of brecciated quartzite occur between 49.8 and 57.2 metres. Puggy veins similar to those in ND-1 occur throughout the drill hole. Minor galena, sphalerite, chalcopyrite and wolfram occurs within these veins. Using a 0.1g/t Au cut-off the following zone is delineated:

Depth	Interval Width	Grade
(m)	(m)	Au (g/t)
102.9-114	11.1	0.15

This zone corresponds closely with the pelite-rich unit in the drill hole.

ND-3

Calc-silicate bearing units, including garnet skarn and exotically banded calc-silicates, occur from 0 to 51 metres. The remainder of the hole drilled a mixture of quartzites, psammopelites and pelites.

A highly brecciated and pyrite-sericite altered zone of quartzite occurs from 55.5 to 66.5 metres. Pyrite in this interval typically varies from 1% to 5% but can range up to 20%. This zone correlates with the down-dip extension of Higgs Mine. Sphalerite-galena-rich patches occur in thin (10cm) shear zones at 66.4 and 74.5 metres. Disseminated and veined galena, pyrite, sphalerite and chalcopyrite, up to 20% in patches, occurs in pelitic to psammopelitic rocks between 110.2 and 113.5 metres.

The following zones are defined on a 0.1g/t Au cut-off.

Depth (m)	Interval Width (m)	Grade (g/t Au)
16-20	4	0.50
110.2-123.5	13.3	0.12

These zones correspond with veined and disseminated sulphides in pelitic to psammopelitic rocks. Other values of greater than 0.1g/t Au and less than 0.5g/t Au occur in individual one-metre samples, including a value of 0.42g/t Au in a garnet skarn.

GENERAL

Bedding measurements in ND-1 and 2 imply that bedding dips consistently to the north at 30°-40°. Bedding is still dipping to the north in ND-3, but at a slightly steeper angle: 50-60°. Distinct broken zones occur in ND1 and 3 which appear to correlate with major zones of shearing on surface at West Higgs and Higgs Mine respectively. The correlatable zone of shearing is steeper than bedding recorded in the holes, for it dips 60-70° to the north in accordance with measurements at surface. Broken zones also occur in ND-2 which could be correlated to an interpreted zone of shearing between Higgs and West Higgs, but these zones are not as well developed as in the other holes.

Pyrite typically occurs throughout the drill holes along thin fractures (especially sub-parallel to the core axis), and in dendritic veinlets in the quartzites. However, the pyrite is not associated with anomalous gold. The broken zones described above are rich in pyrite (up to 20% in ND-3), and although anomalous in arsenic are again very low in gold.

Anomalous base-metal zones occur in the drilling which correspond with sulphide-bearing veins in pelitic units or at contacts between pelitic and more psammopelitic units. Values generally range up to 0.5% combined base metals, with one sample in ND-3 from 112.5 to 113.5 containing 9.2% combined Cu, Pb, Zn. Anomalous Sn values also correspond with these zones.

Thick (up to 0.5cm) quartz-pyrite-sericite-clay greisen veins are present in the lower parts of ND1 and 3, and throughout ND-2. They generally lie sub-parallel to the core axis, implying a dip of 50°-60° to the south. These veins correspond with various combinations of anomalous Mo, Sn, W values and are equivalent to the greisen veins often mined out near the contact of the Dolcoath Granite (e.g. Squibs Mine). This veining appears to be later than all other veining in the core.

Gold values are disappointingly low in the drill core compared with values sampled at surface and do not appear to occur with the down-dip extensions of the major shear zones as expected. Anomalous gold zones (>0.1g/t Au) broadly corrrespond with the anomalous base-metal zones. However, detailed examination shows that although they overlap, there appears to be a separate Au-As phase of mineralisation. This agrees with the geochemical associations noted at surface in the Higgs and Narrawa Reward Mines. There also seems to be a near vertical component to the gold mineralisation, with the main zones of anomalous gold occurring approximately vertically below the line of old workings at surface.

4.6 PETROLOGY

Twenty rocks from field samples and drill core were sent for petrological description to Central Mineralogical Services. The report is included as Appendix 5. The mineralisation and alteration in the rocks is described as pneumatolytic (greisening) in character, accompanied by mild hornfelsic recrystallising effects. Three stages of alteration and mineralisation appear to be recongised. An early micaceous alteration associated with disseminated and veined sulphide assemblages, comprising pyrite, pyrrhotite, sphalerite, galena and accessory chalcopyrite. An intermediate-stage quartz veining and quartz replacement phase which is non sulphidic, but appears to be associated with gold mineralisation. Plus a third late-stage mica greisen vein stage with which minor gold is associated. Evidence of a Au-barren pyritic-siliceous vein phase was also noted. All these features are consistent with

the geology and geochemistry described from the surface workings and drilling.

There was no evidence of supergene sulphides in the mineralisation, suggesting supergene enrichment is not a likely explanation for the high gold values recorded near surface. However, gold does occur with microcolloform limonite within cavities in the oxidised rocks, and late remobilisation of the gold and iron may explain some of the very high (>30g/t Au) spotty gold values in these rocks.

The pneumatolytic alteration at the Narrawa Reward Mine is further characterised by the development of fine-grained topaz. This may be related to the close association of the quartz-feldspar porphyries, for a topazised porphyry analogous to the pneumatolytic porphyries at Mt. Bischoff has been described from Narrawa (T6023 - Appendix 5).

5. CONCLUSIONS AND RECOMMENDATIONS

High-grade gold values have been channel sampled from old workings and road exposures within an area which has substantial width (200 metres) and strike length (250 metres) in the central part of the Dolcoath grid. However, five drill holes, two by C.R.A. in 1982 and three by G.F.E.L. in 1987 have failed to intersect similar gold values beneath the workings.

The workings occur within a sequence of interbedded quartzites, psammopelites, pelites and calc-silicate hornfelses, which is thought to represent transition beds in the upper part of the Moina Sandstone Formation. An early east-west folding has been overprinted by a northwest-southeast folding episode. The latter is the prominent folding event on the Dolcoath grid with fold axes parallel to the baseline (110° MN). Faulting parallel to the northwest-southeast trend has accompanied the folding.

The Dolcoath Granite and associated quartz-feldspar porphyries intruded the Ordovician sediments after the major period of folding and faulting. Detailed examination of the geology and geochemistry in the workings and in the core, including petrological descriptions, suggests that a complex multiphase greisenisation event has accompanied intrusion of the granite. A Au-barren pyritic phase appears to have filled joints and shears in the sediments probably during folding or possibly at a very early stage of granite intrusion. Intrusion of the quartz-feldspar porphyries occurred early for in places they are overprinted by all stages of the greisenisation. The first phase of greisenisation (micaceous alteration) was accompanied by base-metal mineralisation. This appears to have been overprinted by quartz veining and quartz replacement which is associated with the gold mineralisation. Shearing seems to have occurred during the early stages of greisenisation, possibly reactivating earlier fractures, and has probably been important in both acting as a conduit for the fluids and in preparing structural sites for metal deposition. The porphyries may also have acted as conduits for the fluids especially in the vicinity of the Narrawa Reward Mine where topaz is common to both the greisenisation/mineralisation and the porphyries. Possibly as cooling took place a later stage of more brittle greisen veining occurred, with greisen veins cutting both the

sediments and granite, and commonly dipping 50°-60° to the south. These veins consist of quartz-sericite-pyrite-clay-fluorite assemblages and contain Sn, W, Mo and minor base metal mineralisation. Minor gold can occur in these veins, possibly remobilised from the earlier gold-quartz phase.

Drilling beneath the workings has probably not been successful to date because of structural complexities which are controlling the presence of mineralisation. Structural interaction between the shallow dipping beds and more steeply dipping shear zones may be producing shallow plunging shoots which have been difficult to intersect in the drilling so far. A better understanding of these controls is required prior to further drilling around the workings.

Both the geochemistry and the geophysics suggest there is potential for further substantial mineralisation along strike from the Narrawa Reward and Higgs Mines. A geophysical drill target has been recommended by Dr. J. Bishop beneath 6100E/4960N to test the eastern extension of Higgs Mine. Soil and rock geochemical anomalies over the northeastern part of the grid near the granite contact needs to be tested for a possible Stormont skarn style of Au-Bi mineralisation. A major gold-only soil anomaly to the southwest of the old workings requires further testing for greisen-style gold mineralisation. The line of Packetts Workings is geochemically anomalous in gold and may warrant drill testing.

Assessment of the data accrued during the last twelve months is required to determine further drill targets on the Dolcoath grid. A second phase of drilling should be completed before the end of the next financial year. Reconnaissance exploration, including regional mapping, rock sampling and stream sediment sampling should be commenced in the southern part of EL 26/85 which is predominantly covered by Cambrian volcanics. This reconnaissance work should lead to construction of further grids. The above programme for 1986/87 is expected to cost between $50,000 and $100,000.

6. REFERENCES

Jennings, I.B., 1979: Geological Survey Explanatory Report, Sheet 37 Sheffield, Department of Mines, Tasmania

Reid, A.M., 1919: The Mining Fields of Moina, Mt. Claude and Lorrina. Bulletin, Geological Survey, Tasmania.

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Sheehan, G.M., 1969: The Gravity Field in the Sheffield Area. Unpublished thesis, University of Tasmania.

Twelvetrees, W.H., 1913: The Middlesex and Mount Claude Mining Field, Bulletin 14, Geological Survey, Tasmania.

APPENDIX 1

G.F.E.L. Expenditure from Dec. 1986 to Sept. 1987

027

APPENDIX 1

G.F.E.L. Expenditure from December 1986 to September 1987.

Item	Cost
Salaries, wages and on-costs	48,259
Travel and accommodation	154
Consultants and contractors	24,862
Assays	42,632
Drilling	30,397
Stores	3,446
Vehicle/Plant Hire	9,018
Tenement Costs	5,000
Computing	1,423
Office Costs	1,035
TOTAL	$166,226

APPENDIX 2.1

Geochemical Assay Results and Descriptions

Soil Samples

Abbreviations used in Soil Sample Ledger

Samt = Sample Type

SH = Hand Auger Sample

SM = Wacker Sample (Mega-Head)

Colour

B = Brown
C = Cream
D = Dark
E = Green
F = Fawn
G = Grey
L = Light
N = Black
O = Orange
R = Red
T = Tan
Y = Yellow

Abbreviated combinations are used where required
e.g. GB = Grey Brown
LT = Light Grey

Comp = Composition

C = Clay
S = Sand
G = Gravel

Abbreviated combinations are used
e.g. SG = Sandy Gravel

Spare 1 = Depth in Metres

GOLDFIELDS EXPLORATION PTY.LTD. DATA SHEET

GRID:DOLCOATH

MAP-PHOTO:CETHANA 2-PROJECT:NARRAWA REF.:SOIL SAMPLES
SAMPLER:ROBERTS/N.POLTOCK

SAMPLE IDENT.	NORTH	EAST	SAMT	SPARE1	COLOUR	COMP	AU PPM	CU PPM	PB PPM	ZN PPM	AS PPM
T 6133	5400	5000	SH	0.7	CG	SG	-0.008	-5	-5	35	5
T 6132	5375	5000	SH	1.0	F	CS	-0.008	5	-5	15	5
T 6131	5350	5000	SH	1.0	T	S	0.017	10	20	20	26
T 6130	5325	5000	SH	0.8	G	SG	-0.008	10	15	5	4
T 6129	5300	5000	SH	1.0	T	SG	0.017	10	30	10	34
T 6128	5275	5000	SH	1.0	B	C	-0.008	25	35	25	18
T 6127	5250	5000	SH	1.0	DB	CS	-0.008	15	30	20	5
T 6126	5225	5000	SH	1.0	DB	C	-0.008	65	35	55	13
T 6125	5200	5000	SH	1.0	DB	C	-0.008	85	20	45	14
T 6124	5175	5000	SH	1.8	DB	C	-0.008	60	10	40	8
T 6123	5150	5000	SH	1.3	DB	C	0.008	60	40	50	9
T 6122	5125	5000	SH		DB	C	-0.008	70	60	50	9
T 6121	5100	5000	SH	1.4	DB	C	-0.008	75	60	70	8
T 6120	5075	5000	SH	1.2	DB	C	0.008	65	30	60	10
T 6119	5050	5000	SH	1.0	DB	CS	-0.008	200	40	85	14
T 6118	5025	5000	SH	1.0	TO	CS	-0.008	420	60	70	42
T 6117	5000	5000	SH	0.7	DB	CS	-0.008	145	45	100	10
T 6101	4975	5000	SH	0.5M	DB	C	0.025	30	70	35	12
T 6102	4950	5000	SH	0.7	DB	C	-0.008	110	120	95	16
T 6103	4925	5000	SH	0.9	TB		-0.008	30	45	10	10
T 6104	4900	5000	SH	1.0	T	CS	-0.008	35	60	15	22
T 6105	4875	5000	SH	1.0	GT	S	-0.008	10	50	5	7
T 6106	4850	5000	SH	1.0	GT	S	-0.008	5	20	10	2
T 6107	4825	5000	SH	0.8	TC	S	-0.008	5	30	5	3
T 6108	4800	5000	SH	0.9	GF		0.040	-5	10	5	3
T 6109	4775	5000	SH	1.0	G	SG	-0.008	-5	45	5	-1
T 6110	4750	5000	SH	0.6	G	S	0.008	-5	35	5	-1
T 6111	4725	5000	SH	0.8	LTG	CS	-0.008	5	335	10	-1
T 6112	4700	5000	SH	0.8	G	SG	0.008	-5	85	5	-1
T 6113	4675	5000	SH		G	SG	-0.008	-5	-5	-5	3
T 6114	4650	5000	SH	0.6	G	SG	-0.008	-5	35	5	-1
T 6115	4625	5000	SH	0.5	GT	SG	-0.008	5	90	5	3
T 6116	4600	5000	SH	0.4	GB	SG	-0.008	5	30	15	-1
T 6165	5375	5100	SH	0.6	LG	SG	0.008	-5	15	5	3
T 6164	5350	5100	SH	0.7	LG	SG	-0.008	-5	20	5	4
Laboratory:							ANALAB	ANALAB	ANALAB	ANALAB	ANALAB
Instrument:							309	101	101	101	114
Det. Limit:							0.008	5.000	5.000	5.000	1.000

GOLDFIELDS EXPLORATION PTY.LTD. DATA SHEET

GRID:DOLCOATH

MAP-PHOTO:CETHANA 2-PROJECT:NARRAWA REF.:SOIL SAMPLES
SAMPLER:ROBERTS/N.POLTOCK

SAMPLE IDENT.	NORTH	EAST	SAMT	SPARE1	COLOUR	COMP	AU PPM	CU PPM	PB PPM	ZN PPM	AS PPM
T 6163	5325	5100	SH	0.8	LG	SG	0.008	-5	15	10	6
T 6162	5300	5100	SH	0.9	LG	CS	0.017	5	20	10	6
T 6161	5275	5100	SH	1.0	T	CS	0.025	15	35	20	39
T 6160	5250	5100	SH		GB	CS	0.050	10	60	10	15
T 6159	5225	5100	SH	1.4	GB	SG	-0.008	5	20	10	3
T 6158	5200	5100	SH	1.0	LG	SG	-0.008	5	15	10	2
T 6157	5175	5100	SH	.8	G	SG	-0.008	-5	20	10	2
T 6156	5150	5100	SH	1.0	LG	CS	-0.008	10	40	10	6
T 6155	5125	5100	SH	1.0	LG	SG	-0.008	5	30	10	6
T 6154	5100	5100	SH	.8	TB	C	-0.008	50	80	35	17
T 6153	5075	5100	SH	.9	TB	C	-0.008	90	60	45	15
T 6152	5050	5100	SH	.8	DB	C	-0.008	100	55	55	10
T 6151	5025	5100	SH	1.0	RB	C	-0.008	170	70	115	22
T 6150	5000	5100	SH	1.0	DB	C	-0.008	70	50	55	10
T 6134	4975	5100	SH	1.0	T	C	-0.008	160	30	60	10
T 6135	4950	5100	SH	1.0	LT	C	-0.008	110	50	30	27
T 6136	4925	5100	SH	1.0	G	SG	-0.008	10	5	5	11
T 6137	4900	5100	SH	1.0	LT	C	-0.008	10	50	10	3
T 6138	4875	5100	SH	1.0	LT	C	0.017	10	85	20	3
T 6139	4850	5100	SH	0.7	BG	CS	0.017	5	100	10	5
T 6140	4825	5100	SH	1.2	B	S	0.017	10	75	10	4
T 6141	4800	5100	SH	1.0	BT	C	0.032	10	125	15	5
T 6142	4775	5100	SH	0.7	GB	CS	0.025	10	50	10	4
T 6143	4750	5100	SH	0.8	LG	SG	0.008	-5	20	10	3
T 6144	4725	5100	SH	0.8	LG	SG	-0.008	-5	45	5	5
T 6145	4700	5100	SH	0.9	LG	SG	-0.008	-5	65	5	4
T 6146	4675	5100	SH	0.7	G	SG	-0.008	5	60	5	2
T 6147	4650	5100	SH	0.6	G	SG	-0.008	5	60	5	3
T 6148	4625	5100	SH	0.6	G	SG	-0.008	-5	25	5	3
T 6149	4600	5100	SH	0.7	LG	SG	-0.008	-5	20	5	4
T 6166	5400	5200	SH	0.4	LG	SG	-0.008	-5	15	10	7
T 6167	5375	5200	SH	0.5	LG	SG	-0.008	5	15	10	4
T 6168	5350	5200	SH	.5	G	SG	0.008	-5	30	5	12
T 6169	5325	5200	SH	.7	LG	SG	0.083	5	10	5	9
T 6170	5300	5200	SH	.8	LG	SG	0.008	-5	15	5	4

Laboratory:	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB
Instrument:	309	101	101	101	114
Det. Limit:	0.008	5.000	5.000	5.000	1.000

031

850032

GOLDFIELDS EXPLORATION PTY.LTD. DATA SHEET

GRID:DOLCOATH

MAP-PHOTO:CETHANA 2--PROJECT:NARRAWA REF.:SOIL SAMPLES
SAMPLER:ROBERTS/N.POLTOCK

SAMPLE IDENT.	NORTH	EAST	SAMT	SPARE1	COLOUR	COMP	AU PPM	CU PPM	PB PPM	ZN PPM	AS PPM
T 6171	5275	5200	SH	.5	LG	SG	0.017	-5	10	5	4
T 6172	5250	5200	SH	1.6	TG	SG	-0.008	-5	25	10	2
T 6173	5225	5200	SH	1.0	G	S	-0.008	5	30	10	4
T 6174	5200	5200	SH	.7	G	SG	-0.008	-5	20	5	2
T 6175	5175	5200	SH	.8	TG	SG	-0.008	15	55	10	12
T 6176	5150	5200	SH	1.0	G	SG	-0.008	-5	20	10	2
T 6177	5125	5200	SH	1.0	TB	CS	0.017	15	80	15	23
T 6178	5100	5200	SH	1.0	TB	CS	-0.008	15	80	15	13
T 6179	5075	5200	SH	1.0	G	S	-0.008	10	30	30	5
T 6180	5050	5200	SH	1.0	T	CS	-0.008	30	75	45	53
T 6181	5025	5200	SH	1.0	T	C	-0.008	170	85	60	23
T 6182	5000	5200	SH	1.0	T	C	-0.008	10	15	10	13
T 6183	4975	5200	SH	1.0	T	CS	-0.008	30	35	15	11
T 6184	4950	5200	SH	1.0	LT	CS	0.100	10	30	10	4
T 6185	4925	5200	SH	1.0	LT	C	0.032	10	35	30	4
T 6186	4900	5200	SH	1.0	TB	C	0.008	15	20	40	4
T 6187	4875	5200	SH	.8	DB	C	-0.008	10	30	20	4
T 6188	4850	5200	SH	1.0	T	C	-0.008	10	20	20	4
T 6189	4825	5200	SH	1.0	B		0.008	15	20	25	4
T 6190	4800	5200	SH	1.1	G	CS	0.025	-5	25	5	3
T 6191	4775	5200	SH	.7	G	SG	0.050	5	-5	-5	-1
T 6192	4750	5200	SH	.7	BG	G	-0.008	5	15	5	4
T 6193	4725	5200	SH	.7	G	S	-0.008	5	5	10	2
T 6194	4700	5200	SH	.4	G		-0.008	5	20	5	7
T 6195	4675	5200	SH	.7	LG	S	-0.008	5	5	5	16
T 6196	4650	5200	SH	.6	GT	S	-0.008	-5	-5	10	9
T 6197	4625	5200	SH	.8	LTG	S	-0.008	-5	10	10	3
T 6198	4600	5200	SH	1.0	TB	CS	-0.008	10	25	10	9
T 6230	5400	5300	SH	.8	LG	SG	-0.008	-5	-5	-5	-1
T 6229	5375	5300	SH	1.4	G	SG	-0.008	-5	5	5	4
T 6228	5350	5300	SH	1.0	G	SG	-0.008	5	-5	-5	-1
T 6227	5325	5300	SH	.9	F	SG	-0.008	5	-5	-5	3
T 6226	5300	5300	SH	.7	LG	SG	-0.008	5	15	5	3
T 6225	5275	5300	SH	1.0	F	S	-0.008	5	115	5	3
T 6224	5250	5300	SH	.9	G	SG	-0.008	-5	10	5	-1
Laboratory:							ANALAB	ANALAB	ANALAB	ANALAB	ANALAB
Instrument:							309	101	101	101	114
Det. Limit:							0.008	5.000	5.000	5.000	1.000

GOLDFIELDS EXPLORATION PTY.LTD. DATA SHEET

GRID:DOLCOATH

MAP-PHOTO:CETHANA 2-PROJECT:NARRAWA REF.:SOIL SAMPLES
SAMPLER:ROBERTS/N.POLTOCK

SAMPLE IDENT.	NORTH	EAST	SAMT	SPARE1	COLOUR	COMP	AU PPM	CU PPM	PB PPM	ZN PPM	AS PPM
T 6223	5225	5300	SH	.8	G	SG	-0.008	-5	5	-5	-1
T 6222	5200	5300	SH	1.0	F	CS	-0.008	5	15	10	-1
T 6221	5175	5300	SH	.7	G	SG	-0.008	5	-5	5	-1
T 6220	5150	5300	SH	.8	G	SG	-0.008	-5	10	10	4
T 6219	5125	5300	SH	1.0	FG	CS	-0.008	5	110	5	2
T 6218	5100	5300	SH	.4			-0.008	-5	10	15	2
T 6217	5075	5300	SH	.8	TB	C	-0.008	5	10	10	4
T 6216	5050	5300	SH	1.0	DB	CS	-0.008	10	15	10	6
T 6215	5025	5300	SH	1.0	T	C	-0.008	20	20	60	11
T 6214	5000	5300	SH	1.0	T	C	-0.008	40	30	35	32
T 6213	4975	5300	SH	1.0	TB	C	-0.008	35	35	25	8
T 6212	4950	5300	SH	1.0	LT	CS	-0.008	30	25	10	130
T 6211	4925	5300	SH	1.0	LT	C	-0.008	5	5	10	2
T 6210	4900	5300	SH	1.0	LTG	S	-0.008	-5	5	10	2
T 6209	4875	5300	SH	.9	LG		-0.008	-5	5	10	2
T 6208	4850	5300	SH	1.0	TB	C	0.008	10	30	15	6
T 6207	4825	5300	SH	1.0	T	C	-0.008	5	5	10	3
T 6206	4800	5300	SH	1.0	T	CS	-0.008	5	10	15	4
T 6205	4775	5300	SH	1.0	G	SG	-0.008	5	-5	-5	-1
T 6204	4725	5300	SH	.5	G	SG	-0.008	-5	-5	10	-1
T 6203	4700	5300	SH	.6	G	SG	-0.008	-5	-5	5	-1
T 6202	4675	5300	SH	.6	G	SG	-0.008	-5	10	5	-1
T 6201	4650	5300	SH	.7	G		-0.008	5	20	5	4
T 6200	4625	5300	SH	.5	G	SG	-0.008	-5	10	10	3
T 6199	4600	5300	SH	0.6	G	SG	-0.008	-5	10	5	3
T 6231	5400	5400	SH	1.0	LG	SG	-0.008	-5	-5	-5	-1
T 6232	5375	5400	SH	.8	LG	SG	-0.008	-5	-5	5	2
T 6233	5350	5400	SH	.9	G	SG	-0.008	15	-5	5	7
T 6234	5325	5400	SH	1.0	F	SG	-0.008	5	-5	5	2
T 6235	5300	5400	SH	1.0	G	CS	-0.008	5	15	-5	2
T 6236	5275	5400	SH	.8	LG	SG	0.032	-5	10	-5	-1
T 6237	5250	5400	SH	1.0	G	SG	0.017	5	15	5	2
T 6238	5225	5400	SH	.8	F	G	0.017	5	10	5	5
T 6239	5200	5400	SH	1.0	F	SG	0.008	5	15	5	-1
T 6240	5175	5400	SH	.9	F	SG	0.032	-5	-5	-5	-1

Laboratory:	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB
Instrument:	309	101	101	101	114
Det. Limit:	0.008	5.000	5.000	5.000	1.000

GOLDFIELDS EXPLORATION PTY.LTD. DATA SHEET

GRID:DOLCOATH

MAP-PHOTO:CETHANA 2-PROJECT:NARRAWA REF.:SOIL SAMPLES
SAMPLER:ROBERTS/N.POLTOCK

SAMPLE IDENT.		NORTH	EAST	SAMT	SPARE1	COLOUR	COMP	AU PPM	CU PPM	PB PPM	ZN PPM	AS PPM
T	6241	5150	5400	SH	.7	LG	SG	-0.008	-5	-5	-5	-1
T	6242	5125	5400	SH	1.0	F	CS	0.008	-5	10	5	2
T	6243	5100	5400	SH	1.0			-0.008	-5	-5	15	2
T	6245	5050	5400	SH	1.0	DB	C	-0.008	15	30	15	7
T	6246	5025	5400	SH	1.0	T	C	-0.008	30	75	35	8
T	6247	5000	5400	SH	.9	T	C	-0.008	15	30	25	5
T	6248	4975	5400	SH	1.0	T	C	-0.008	15	35	30	4
T	6249	4950	5400	SH	1.0	TB	C	0.017	30	170	30	19
T	6250	4925	5400	SH	.9	TG	C	-0.008	-5	20	10	13
T	6251	4900	5400	SH	1.0	LT		0.008	20	415	15	650
T	6252	4875	5400	SH	1.0	GB	C	0.025	5	25	10	14
T	6253	4850	5400	SH	1.4	TG	CS	0.017	-5	15	15	6
T	6254	4825	5400	SH	.7	LG	SG	-0.008	5	-5	5	-1
T	6255	4800	5400	SH	1.0	LG	CS	-0.008	-5	-5	5	-1
T	6256	4775	5400	SH	.9	G	C	-0.008	-5	5	5	2
T	6257	4750	5400	SH	.4			-0.008	15	-5	-5	-1
T	6258	4700	5400	SH	.7	LG		-0.008	-5	-5	5	-1
T	6259	4675	5400	SH	.5	G	SG	-0.008	5	-5	-5	-1
T	6260	4650	5400	SH	.8	F	CS	0.008	-5	5	5	5
T	6261	4625	5400	SH	.5			0.017	-5	-5	5	-1
T	6262	4600	5400	SH	.6			0.150	-5	-5	5	3
T	6263	4575	5400	SH	.7	TB	CS	0.133	10	15	15	28
T	6264	4550	5400	SH	.3			-0.008	80	45	10	6
T	6265	4530	5400	SH		B	CS	-0.008	40	55	85	11
T	6266	4500	5400	SH	1.0	OT	C	-0.008	20	20	45	7
T	6267	4475	5400	SH	1.0	T	C	-0.008	5	10	10	-1
T	6268	4450	5400	SH	1.8	TG	CS	-0.008	5	10	10	3
T	6269	4425	5400	SH	1.0	OT	S	0.008	25	25	45	8
T	6286	5400	5500	SH	1.0	G	SG	0.008	-5	40	5	-1
T	6285	5375	5500	SH	0.7	LG	SG	-0.008	10	45	-5	5
T	6284	5350	5500	SH	0.7	FG	S	-0.008	5	10	-5	2
T	6283	5300	5500	SH	0.9	GF	S	-0.008	10	-5	-5	2
T	6282	5275	5500	SH	0.9	F	CS	-0.008	-5	-5	-5	-1
T	6281	5250	5500	SH	0.8	G	SG	0.008	5	-5	-5	-1
T	6280	5225	5500	SH	0.7	G	SG	-0.008	5	15	-5	-1

Laboratory:	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB
Instrument:	309	101	101	101	114
Det. Limit:	0.008	5.000	5.000	5.000	1.000

034

850035

GOLDFIELDS EXPLORATION PTY.LTD. DATA SHEET

GRID:DOLCOATH

MAP-PHOTO:CETHANA 2-PROJECT:NARRAWA REF.:SOIL SAMPLES
SAMPLER:ROBERTS/N.POLTOCK

SAMPLE IDENT.	NORTH	EAST	SAMT	SPARE1	COLOUR	COMP	AU PPM	CU PPM	PB PPM	ZN PPM	AS PPM
T 6279	5200	5500	SH	1.0	LG	SG	-0.008	5	30	-5	-1
T 6278	5175	5500	SH	0.8	G	SG	-0.008	5	-5	-5	-1
T 6277	5150	5500	SH	0.8	LG	S	-0.008	5	-5	-5	-1
T 6276	5125	5500	SH	0.7	G	SG	0.008	-5	-5	-5	-1
T 6275	5100	5500	SH	0.7	G	SG	-0.008	5	-5	-5	-1
T 6274	5075	5500	SH	0.6	G	SG	-0.008	-5	5	5	-1
T 6273	5050	5500	SH	0.7	G	SG	-0.008	5	5	5	-1
T 6272	5025	5500	SH	1.5	DB	CS	-0.008	100	120	40	15
T 6271	5000	5500	SH	0.8	GT	S	-0.008	10	-5	20	5
T 8501	4975	5500	SM	0.3	G	G	-0.008	5	5	15	8
T 8502	4950	5500	SM	0.9	T	C	0.050	50	90	20	76
T 8503	4925	5500	SM	1.7	YT		-0.008	10	45	20	200
T 8504	4900	5500	SM	1.3	F	S	-0.008	10	-5	10	3
T 8505	4875	5500	SM	0.5	LT	SG	-0.008	-5	-5	5	4
T 8506	4850	5500	SM	0.7	LT	SG	-0.008	-5	-5	5	2
T 8507	4825	5500	SM	1.0	F	SG	-0.008	-5	-5	5	2
T 8508	4800	5500	SM	0.9	LT	SG	-0.008	-5	-5	10	3
T 8509	4775	5500	SM	1.0	TG	CS	-0.008	-5	5	5	2
T 8510	4750	5500	SM	1.0	TG	CS	0.490	5	15	10	6
T 8511	4725	5500	SM	1.0	DG	SG	-0.008	5	185	10	2
T 8512	4700	5500	SM	0.9	GF	SG	-0.008	5	-5	-5	4
T 8513	4675	5500	SM	0.8	G	S	0.130	5	-5	10	4
T 8514	4650	5500	SM	1.8	T	CS	0.070	75	80	110	93
T 8515	4625	5500	SM	2.1	GB	G	-0.008	5	-5	10	3
T 8516	4600	5500	SM	1.4	B	G	-0.008	20	-5	20	6
T 8517	4575	5500	SM	0.6	TB	CS	-0.008	5	5	30	5
T 8518	4550	5500	SM	0.9	G	SG	-0.008	10	5	25	8
T 8519	4525	5500	SM	1.0	TB	S	-0.008	25	35	65	13
T 6287	5400	5600	SH	0.5	B	S	-0.008	5	-5	5	-1
T 6288	5375	5600	SH	1.0	G	S	-0.008	-5	10	5	-1
T 6289	5350	5600	SH	1.0	G	S	-0.008	5	5	-5	-1
T 6290	5325	5600	SH	1.0	G	SG	-0.008	-5	45	-5	-1
T 6291	5300	5600	SH	0.8	G	SG	0.008	-5	20	-5	-1
T 6292	5275	5600	SH	0.8	G	SG	-0.008	-5	25	-5	-1
T 6293	5250	5600	SH	0.8	GF	CS	0.017	5	45	5	3

Laboratory:	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB
Instrument:	309	101	101	101	114
Det. Limit:	0.008	5.000	5.000	5.000	1.000

035

850036

GOLDFIELDS EXPLORATION PTY.LTD. DATA SHEET

GRID:DOLCOATH

MAP-PHOTO:CETHANA 2-PROJECT:NARRAWA REF.:SOIL SAMPLES
SAMPLER:ROBERTS/N.POLTOCK

SAMPLE IDENT.	NORTH	EAST	SAMT	SPARE1	COLOUR	COMP	AU PPM	CU PPM	PB PPM	ZN PPM	AS PPM
T 6294	5225	5600	SH	0.8	G	SG	-0.008	-5	10	5	-1
T 6295	5200	5600	SH	0.9	G	SG	-0.008	5	15	5	-1
T 6296	5175	5600	SH	1.0	GF	CS	-0.008	5	30	10	3
T 6297	5150	5600	SH	0.9	G	SG	-0.008	10	15	5	2
T 6298	5125	5600	SH	0.8	G	SG	-0.008	5	15	5	-1
T 6299	5100	5600	SH	0.8	G	SG	-0.008	5	25	5	-1
T 6300	5075	5600	SH	1.0	T	CS	-0.008	10	55	15	5
T 6301	5050	5600	SH	0.8	G	CS	-0.008	10	30	20	9
T 6302	5025	5600	SH	1.0	OB	CS	0.017	30	25	25	63
T 6303	5000	5600	SH	1.0	OB	CS	0.025	15	50	30	91
T 6304	4975	5600	SH	1.0	B		0.017	20	95	15	24
T 6305	4950	5600	SH		G	G	0.008	10	20	15	24
T 6306	4925	5600	SH	1.0	G	SG	0.017	5	-5	5	5
T 6307	4900	5600	SH	1.0	G	CS	0.017	-5	-5	5	3
T 6308	4875	5600	SH	1.0	GF	SG	-0.008	10	290	10	9
T 6309	4850	5600	SH	0.5	LG	S	0.067	5	5	-5	2
T 6310	4825	5600	SH	0.5	LG	S	0.142	-5	150	5	3
T 6311	4800	5600	SH	0.8	LG	S	0.142	-5	30	5	4
T 6312	4775	5600	SH	0.8	LG	S	0.700	10	75	-5	21
T 6313	4750	5600	SH	0.8	G	SG	0.050	-5	20	5	2
T 6314	4725	5600	SH	0.5	LG	SG	0.191	10	-5	5	5
T 6315	4700	5600	SH	1.0	F	CS	0.075	10	15	10	9
T 6316	4650	5600	SH	1.2	OB	CS	0.017	30	25	45	5
T 6317	4625	5600	SH	1.0	GO	S	0.050	30	30	45	9
T 6318	4600	5600	SH	1.0	LOB	S	-0.008	65	65	65	27
T 6319	4575	5600	SH	0.8	LG	S	-0.008	5	-5	5	2
T 6320	4525	5600	SH	1.2	OB	S	-0.008	10	20	85	4
T 6321	4500	5600	SH	1.0	GOB	S	-0.008	5	5	40	6
T 6322	4475	5600	SH	1.2	GOB	CS	-0.008	10	20	20	5
T 6323	4450	5600	SH	1.4	FG	CS	-0.008	5	15	15	5
T 6324	4425	5600	SH	1.0	GOB	S	-0.008	-5	15	5	3
T 6325	4400	5600	SH	1.0	TG	CS	-0.008	-5	10	10	3
T 6326	4375	5600	SH	1.0	OB	SG	-0.008	15	15	30	14
T 6327	4350	5600	SH	1.0	LG	SG	-0.008	-5	-5	10	2
T 6328	4325	5600	SH	1.2	GT	SG	-0.008	-5	5	15	3

Laboratory:	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB
Instrument:	309	101	101	101	114
Det. Limit:	0.008	5.000	5.000	5.000	1.000

GOLDFIELDS EXPLORATION PTY.LTD. DATA SHEET

GRID:DOLCOATH

MAP-PHOTO:CETHANA 2--PROJECT:NARRAWA REF.:SOIL SAMPLES
SAMPLER:ROBERTS/N.POLTOCK

SAMPLE IDENT.		NORTH	EAST	SAMT	SPARE1	COLOUR	COMP	AU PPM	CU PPM	PB PPM	ZN PPM	AS PPM
T	6329	4300	5600	SH	0.9	LG	S	-0.008	-5	-5	5	2
T	6330	4275	5600	SH	0.9	GF	SG	-0.008	-5	20	15	3
T	6331	4250	5600	SH	0.7	G	SG	-0.008	-5	15	15	2
T	6332	4225	5600	SH	0.7	G	SG	-0.008	-5	-5	10	4
T	6333	4200	5600	SH	0.8	TG	SG	-0.008	10	-5	15	2
T	6346	5200	5650	SH	1.0	G	SG	-0.008	5	30	5	3
T	6345	5175	5650	SH	1.0	GF	SG	-0.008	10	145	10	6
T	6344	5150	5650	SH	0.9	LG	SG	-0.008	-5	25	10	2
T	6343	5125	5650	SH	0.5	LG	SG	-0.008	-5	25	10	-1
T	6342	5100	5650	SH	0.6	LG	SG	-0.008	-5	15	5	2
T	6341	5075	5650	SH	0.7	LG	SG	-0.008	5	10	10	3
T	6340	5050	5650	SH	0.7	G	SG	0.017	-5	5	5	4
T	6339	5025	5650	SH	0.8	GOB	CS	0.008	5	5	-5	4
T	6338	5000	5650	SH	0.8	OB	CS	0.008	15	25	20	54
T	6337	4975	5650	SH	0.5	G	SG	-0.008	5	-5	10	3
T	8520	4950	5650	SM	1.7	LT	S	-0.008	10	-5	15	10
T	8521	4925	5650	SM	2.3	BG	G	-0.008	5	-5	5	3
T	8522	4900	5650	SM	0.9	F	S	-0.008	5	-5	5	3
T	8523	4875	5650	SM	0.8	G	G	-0.008	-5	-5	5	3
T	8524	4850	5650	SM	1.3	LT	S	-0.008	-5	20	5	2
T	8525	4825	5650	SM	1.2	F	S	0.030	-5	155	10	4
T	8526	4800	5650	SM	0.5	G	G	0.030	-5	140	5	10
T	6361	5500	5700	SH	0.4	G	SG	-0.008	5	-5	-5	5
T	6362	5475	5700	SH	0.6	G	SG	-0.008	-5	-5	5	2
T	6363	5450	5700	SH	0.5	G	SG	-0.008	5	-5	5	5
T	6364	5425	5700	SH	1.0	G	SG	-0.008	-5	-5	5	-1
T	6365	5400	5700	SH	0.8	G	S	-0.008	5	-5	-5	-1
T	6366	5375	5700	SH	1.0	G	S	-0.008	-5	-5	-5	-1
T	6367	5350	5700	SH	0.6	G	SG	-0.008	-5	5	-5	-1
T	6368	5325	5700	SH	0.6	G	SG	-0.008	-5	-5	-5	-1
T	6369	5300	5700	SH	0.8	G	SG	-0.008	-5	10	5	-1
T	6370	5275	5700	SH	0.8	G	SG	-0.008	5	25	5	-1
T	6371	5250	5700	SH	0.7	G	SG	-0.008	5	20	5	-1
T	6372	5225	5700	SH	0.8	G	SG	-0.008	-5	35	10	-1
T	6373	5200	5700	SH	0.7	G	SG	-0.008	-5	10	5	2

Laboratory:	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB
Instrument:	309	101	101	101	114
Det. Limit:	0.008	5.000	5.000	5.000	1.000

GOLDFIELDS EXPLORATION PTY.LTD. DATA SHEET

GRID:DOLCOATH

MAP-PHOTO:CETHANA 2-PROJECT:NARRAWA REF.:SOIL SAMPLES
SAMPLER:ROBERTS/N.POLTOCK

SAMPLE IDENT.	NORTH	EAST	SAMT	SPARE1	COLOUR	COMP	AU PPM	CU PPM	PB PPM	ZN PPM	AS PPM
T 6374	5175	5700	SH	1.0	G	SG	-0.008	5	25	5	3
T 6375	5150	5700	SH	0.5	G	SG	-0.008	-5	40	5	2
T 6376	5125	5700	SH	0.7	G	SG	-0.008	5	25	5	2
T 6377	5100	5700	SH	0.6	G	SG	-0.008	-5	30	10	2
T 6378	5075	5700	SH	0.4	G	SG	-0.008	-5	5	5	-1
T 6379	5050	5700	SH	1.0	GT	CS	0.058	30	135	50	290
T 6359	5025	5700	SH	1.0	DB	S	0.225	100	135	135	120
T 6358	5000	5700	SH	0.8	T	S	0.040	25	80	20	100
T 6360	4975	5700	SH	1.0	B	S	0.025	55	160	35	120
T 6475	4950	5700	SH	1.0	B	C	0.025	20	45	50	130
T 6476	4925	5700	SH	0.8	B	CS	-0.008	60	105	55	55
T 6477	4900	5700	SH	0.5	G	CS	0.008	5	-5	10	2
T 6478	4875	5700	SH	0.9	T	C	-0.008	-5	50	10	4
T 6479	4850	5700	SH	1.0	FG	S	-0.008	-5	15	10	2
T 6480	4825	5700	SH	0.8	G	S	-0.008	5	60	5	9
T 6481	4800	5700	SH	0.8	T	S	0.100	5	55	15	24
T 6482	4775	5700	SH	0.7	TG	S	0.480	15	75	10	29
T 6483	4725	5700	SH	1.0	F	S	0.267	35	25	35	8
T 6484	4700	5700	SH	1.0	DB	CS	0.117	25	30	25	38
T 6485	4675	5700	SH	1.0	FB	CS	0.083	30	50	35	13
T 6486	4625	5700	SH	1.0	RB	CS	0.300	25	50	30	8
T 6487	4600	5700	SH		T	CS	-0.008	15	45	25	9
T 6488	4575	5700	SH	1.0	T	C	0.017	25	30	180	140
T 6489	4550	5700	SH	1.0	T	C	0.008	10	15	55	13
T 6490	4525	5700	SH	0.8	B	S	0.108	-5	-5	5	3
T 6491	4500	5700	SH	1.0	LGT	CS	-0.008	5	15	5	2
T 6492	4475	5700	SH	1.0	LGT	S	-0.008	10	10	10	3
T 6493	4450	5700	SH	1.0	GB	CS	-0.008	10	15	10	2
T 6494	4425	5700	SH	1.0	YT	S	-0.008	10	10	10	4
T 6495	4395	5700	SH	1.0	LT	CS	-0.008	10	40	35	9
T 6357	5200	5750	SH	0.9	G	SG	-0.008	10	-5	5	4
T 6356	5175	5750	SH	0.8	G	SG	-0.008	-5	5	5	3
T 6355	5150	5750	SH	0.8	GOB	CS	0.008	10	60	15	9
T 6354	5125	5750	SH	0.8	G	SG	0.008	-5	5	10	5
T 6353	5100	5750	SH	0.8	G	SG	-0.008	5	15	10	5

Laboratory:	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB
Instrument:	309	101	101	101	114
Det. Limit:	0.008	5.000	5.000	5.000	1.000

038

850039

GOLDFIELDS EXPLORATION PTY.LTD. DATA SHEET

GRID:DOLCOATH

MAP-PHOTO:CETHANA 2-PROJECT:NARRAWA REF.:SOIL SAMPLES
SAMPLER:ROBERTS/N.POLTOCK

SAMPLE IDENT.	NORTH	EAST	SAMT	SPARE1	COLOUR	COMP	AU PPM	CU PPM	PB PPM	ZN PPM	AS PPM
T 6352	5075	5750	SH	1.0	TB	CS	0.008	30	200	30	52
T 6351	5050	5750	SH	1.0	GOB	CS	0.092	10	50	15	37
T 6350	5025	5750	SH	1.0	GOB	S	0.017	5	30	40	25
T 6349	5000	5750	SH	1.0	GB	SG	0.008	10	80	30	20
T 6348	4975	5750	SH	0.4	G	SG	-0.008	-5	-5	10	7
T 6347	4950	5750	SH	0.4	LG	SG	-0.008	-5	5	5	-1
T 6474	4925	5750	SH	1.0	TB	C	0.183	30	50	25	14
T 6473	4900	5750	SH	1.3	TB	CS	0.017	10	340	40	260
T 8527	4850	5750	SM	0.3	G	G	-0.008	-5	-5	-5	1
T 8528	4825	5750	SM	0.4	BG	S	0.270	10	155	45	19
T 8529	4800	5750	SM	0.6	TF	CS	0.030	5	90	5	13
T 6403	5600	5800	SH	1.0	LG	SG	-0.008	-5	25	5	4
T 6402	5575	5800	SH	0.6	G	SG	-0.008	-5	360	5	7
T 6401	5550	5800	SH	0.4	LG	SG	-0.008	-5	30	5	3
T 6400	5500	5800	SH	0.7	G	SG	-0.008	-5	45	-5	2
T 6399	5475	5800	SH	0.9	G	SG	-0.008	-5	-5	-5	2
T 6398	5450	5800	SH	0.5	G	SG	-0.008	-5	-5	-5	2
T 6397	5425	5800	SH	0.8	LG	SG	-0.008	-5	-5	-5	2
T 6396	5400	5800	SH	0.5	G	S	-0.008	-5	-5	-5	2
T 6395	5375	5800	SH	0.4	G	SG	-0.008	-5	-5	-5	2
T 6394	5350	5800	SH	0.9	G	SG	-0.008	-5	-5	-5	4
T 6393	5325	5800	SH	0.8	OB	CS	-0.008	10	35	5	26
T 6392	5300	5800	SH	0.4	G	SG	-0.008	5	5	5	3
T 6391	5275	5800	SH	0.5	G	SG	-0.008	5	25	5	2
T 6390	5250	5800	SH	0.5	G	SG	-0.008	5	15	5	3
T 6389	5225	5800	SH	0.6	OB	SG	0.017	10	40	15	26
T 6388	5200	5800	SH	1.3	OB	CS	0.008	20	45	25	23
T 6387	5175	5800	SH	0.7	OB	SG	0.017	20	35	30	41
T 6386	5150	5800	SH	0.7	OB		0.008	15	40	20	29
T 6385	5125	5800	SH	1.5	OB		0.008	55	60	10	13
T 6384	5100	5800	SH	0.9	G	SG	0.008	-5	10	5	5
T 6383	5075	5800	SH	1.5	OB	CS	0.100	25	70	25	97
T 6382	5050	5800	SH	1.5	B	CS	0.450	155	1250	75	880
T 6381	5025	5800	SH	0.8	OB	C	0.233	80	615	115	210
T 6380	5000	5800	SH	0.7	OB	C	0.217	30	165	95	180

Laboratory:	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB
Instrument:	309	101	101	101	114
Det. Limit:	0.008	5.000	5.000	5.000	1.000

039

850040

GOLDFIELDS EXPLORATION PTY.LTD. DATA SHEET

040

GRID:DOLCOATH

MAP-PHOTO:CETHANA 2-PROJECT:NARRAWA REF.:SOIL SAMPLES
SAMPLER:ROBERTS/N.POLTOCK

SAMPLE IDENT.	NORTH	EAST	SAMT	SPARE1	COLOUR	COMP	AU PPM	CU PPM	PB PPM	ZN PPM	AS PPM
T 6472	4975	5800	SH	0.8	TB	CS	0.050	25	180	60	70
T 6471	4950	5800	SH	1.0	T	CS	0.040	70	145	105	30
T 6470	4925	5800	SH	0.6	T	CS	0.075	85	145	80	15
T 6469	4875	5800	SH	1.5	TG	CS	0.408	25	325	15	25
T 6468	4850	5800	SH	0.5	G	SG	0.017	-5	5	5	2
T 6467	4825	5800	SH	0.9	LG	S	0.117	-5	5	5	-1
T 6466	4800	5800	SH	1.0	GB	CS	0.025	25	40	10	5
T 8530	4775	5800	SM	1.4	B	SG	-0.008	5	-5	-5	8
T 8531	4750	5800	SM	2.3	GB	S	-0.008	5	-5	-5	9
T 8532	4725	5800	SM	1.4	LG	SG	-0.008	-5	-5	-5	4
T 8533	4700	5800	SM	2.2	FB	CS	-0.008	15	10	25	8
T 8534	4675	5800	SM	2.8	TB	S	0.020	45	45	45	15
T 6460	4600	5800	SH	0.6	TB	CS	0.342	10	25	20	7
T 6443	5200	5850	SH	1.0	OB	C	0.008	25	30	15	12
T 6444	5175	5850	SH	1.2	B	CS	0.017	30	30	25	12
T 6445	5150	5850	SH	1.0	B	CS	-0.008	10	10	10	5
T 6446	5125	5850	SH	1.5	B	CS	-0.008	30	70	20	11
T 6447	5100	5850	SH	2.0	OB	CS	0.050	10	50	15	80
T 6448	5075	5850	SH	1.2	OB	CS	0.025	40	225	50	88
T 6449	5050	5850	SH	0.8	TB		0.025	35	935	20	110
T 6450	5025	5850	SH	1.4	TB	CS	0.032	40	205	90	31
T 6451	5000	5850	SH	1.0	OB	C	0.017	20	70	55	60
T 6452	4975	5850	SH	0.9	RB	CS	0.250	45	50	85	45
T 6453	4950	5850	SH	1.0	OB	CS	0.067	55	105	110	100
T 6454	4925	5850	SH	0.9	FB	CS	0.025	20	45	35	18
T 6455	4900	5850	SH	1.2	TF	CS	0.333	10	70	10	7
T 6456	4875	5850	SH	1.0	G	S	0.158	-5	10	5	2
T 6457	4850	5850	SH	1.0	TB	CS	0.283	15	870	60	80
T 6458	4825	5850	SH	0.8	T	C	0.175	45	370	35	21
T 6459	4800	5850	SH	1.0	G	S	0.017	10	5	-5	8
T 6405	5600	5900	SH	1.0	LG	SG	-0.008	-5	-5	-5	3
T 6404	5575	5900	SH	0.4	G	S	-0.008	5	25	5	4
T 6406	5550	5900	SH	0.8	G	SG	-0.008	-5	400	10	30
T 6407	5500	5900	SH	0.7	G	SG	-0.008	-5	20	5	4
T 6408	5475	5900	SH	0.7	G	SG	-0.008	-5	30	-5	3

Laboratory:	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB
Instrument:	309	101	101	101	114
Det. Limit:	0.008	5.000	5.000	5.000	1.000

8500041

GOLDFIELDS EXPLORATION PTY.LTD. DATA SHEET

GRID:DOLCOATH

MAP-PHOTO:CETHANA 2-PROJECT:NARRAWA REF.:SOIL SAMPLES
SAMPLER:ROBERTS/N.POLTOCK

SAMPLE IDENT.	NORTH	EAST	SAMT	SPARE1	COLOUR	COMP	AU PPM	CU PPM	PB PPM	ZN PPM	AS PPM
T 6409	5450	5900	SH	0.8	G	SG	-0.008	-5	40	-5	6
T 6410	5425	5900	SH	0.6	G	SG	-0.008	-5	15	5	4
T 6411	5400	5900	SH	0.7	G	SG	-0.008	-5	40	-5	3
T 6412	5375	5900	SH	0.7	G	SG	-0.008	-5	575	5	3
T 6413	5350	5900	SH	0.7	G	SG	-0.008	-5	10	5	5
T 6414	5325	5900	SH	0.6	G	SG	-0.008	5	25	10	4
T 6415	5300	5900	SH	0.8	G	SG	0.008	5	10	5	11
T 6416	5275	5900	SH	0.8	B	CS	0.050	25	155	15	260
T 6417	5250	5900	SH	1.0	B	S	0.008	10	10	15	29
T 6418	5225	5900	SH	0.5	G	SG	-0.008	-5	-5	10	6
T 6419	5200	5900	SH	0.9	OB	S	-0.008	25	45	10	16
T 6420	5175	5900	SH	0.4	GB	S	0.008	5	5	10	6
T 6421	5150	5900	SH	0.7	TG	C	0.032	20	45	15	12
T 6422	5125	5900	SH	0.9	FB	C	0.008	10	40	10	4
T 6423	5100	5900	SH	1.0	TB	C	-0.008	10	35	15	8
T 6424	5075	5900	SH	1.0	TB	C	0.117	30	130	10	150
T 6425	5050	5900	SH	0.8	OB	C	0.075	60	220	35	100
T 6426	5025	5900	SH	1.3	TB	C	0.040	30	120	30	80
T 6427	5000	5900	SH	0.8	TB	C	0.083	50	95	60	50
T 6428	4975	5900	SH	0.7	OB	C	0.058	40	120	65	70
T 6429	4925	5900	SH	1.0	LT	S	0.283	30	285	25	24
T 6430	4900	5900	SH	0.8	FT		0.058	105	290	150	9
T 6431	4875	5900	SH	1.0	G	S	0.067	-5	10	5	-1
T 6432	4850	5900	SH	1.0	S	G	0.383	-5	-5	-5	-1
T 8544	4825	5900	SM	1.0	G	S	0.010	-5	-5	10	1
T 8543	4800	5900	SM	1.7	FG	S	-0.008	-5	20	10	1
T 8542	4775	5900	SM	0.6	G	G	-0.008	-5	-5	5	1
T 6436	4750	5900	SH	1.0	FG	S	0.032	-5	15	-5	2
T 8540	4725	5900	SM	1.2	LG	S	-0.008	-5	-5	-5	1
T 8539	4700	5900	SM	1.3	FG	S	-0.008	-5	80	10	1
T 8535	4675	5900	SM	2.4	F	CS	0.140	10	60	30	19
T 8536	4650	5900	SM		LG	S	-0.008	5	-5	10	2
T 8537	4625	5900	SM	1.2	LTG	S	-0.008	-5	25	5	2
T 8538	4600	5900	SM	1.2	FG	S	-0.008	5	-5	5	1
T 6518	5200	5950	SH	1.0	GB	S	-0.008	10	20	10	7

Laboratory:			ANALAB	ANALAB	ANALAB	ANALAB	ANALAB
Instrument:			309	101	101	101	114
Det. Limit:			0.008	5.000	5.000	5.000	1.000

GOLDFIELDS EXPLORATION PTY.LTD. DATA SHEET

GRID:DOLCOATH

MAP-PHOTO:CETHANA 2-PROJECT:NARRAWA REF.:SOIL SAMPLES
SAMPLER:ROBERTS/N.POLTOCK

SAMPLE IDENT.	NORTH	EAST	SAMT	SPARE1	COLOUR	COMP	AU PPM	CU PPM	PB PPM	ZN PPM	AS PPM
T 6519	5175	5950	SH	0.9	OB	S	-0.008	5	25	10	10
T 6520	5150	5950	SH	0.9	GB	CS	-0.008	5	-5	10	8
T 6521	5125	5950	SH	1.0	G	CS	-0.008	5	5	10	15
T 6522	5100	5950	SH	0.7	B	S	-0.008	15	50	20	18
T 6523	5075	5950	SH	1.0	T	CS	3.000	290	3950	55	7750
T 6524	5050	5950	SH	1.0	OB	C	0.200	45	425	60	590
T 6525	5025	5950	SH	1.0	OB	SG	0.040	20	60	20	110
T 6526	5000	5950	SH	1.0	OB	C	0.017	25	55	40	80
T 6527	4975	5950	SH	1.0	G	S	0.017	20	35	15	6
T 6528	4950	5950	SH	1.0	B	S	0.008	10	35	10	6
T 6529	4925	5950	SH	1.0	F	SG	-0.008	55	70	30	9
T 6530	4900	5950	SH	1.0	OB	SG	1.150	200	775	275	190
T 6531	4875	5950	SH	1.0	BG	G	0.032	35	205	60	800
T 6532	4850	5950	SH	1.0	GF	S	0.017	-5	10	10	9
T 6533	4825	5950	SH	1.4	GB	CS	2.970	10	50	10	27
T 6534	4800	5950	SH	1.0		SC	0.040	10	15	10	30
T 6496	5600	6000	SH	0.8	T	C	-0.008	70	35	25	11
T 6497	5575	6000	SH	1.0	TB	CS	0.017	85	30	115	26
T 6498	5550	6000	SH	1.0	TB	CS	-0.008	110	145	55	23
T 6499	5525	6000	SH	1.0	F	CS	-0.008	85	120	80	37
T 8578	5500	6000	SM	0.7	DG	G	-0.008	5	110	5	3
T 8577	5475	6000	SM	2.1	LTG	S	-0.008	10	90	5	8
T 8576	5450	6000	SM	2.0	BF	C	-0.008	80	75	10	29
T 8575	5425	6000	SM	1.6	G	SG	-0.008	-5	10	5	4
T 8574	5375	6000	SM	1.0	LG	S	-0.008	-5	45	5	4
T 8573	5350	6000	SM	1.2	TB	S	-0.008	15	70	5	150
T 8572	5325	6000	SM	2.5	TB	S	-0.008	15	70	20	45
T 8571	5300	6000	SM	1.1	G	S	-0.008	5	55	10	8
T 8570	5275	6000	SM	1.2	GF	S	-0.008	5	40	10	15
T 8569	5250	6000	SM	2.1	F	S	-0.008	5	40	10	12
T 8568	5225	6000	SM	0.5	G	S	-0.008	-5	-5	5	3
T 8567	5200	6000	SM	0.8	T	CS	-0.008	45	65	10	17
T 8566	5175	6000	SM	1.4	F	S	-0.008	20	45	10	6
T 8565	5150	6000	SM	1.2	LT	C	-0.008	65	220	50	17
T 8564	5125	6000	SM	1.4	F	CS	-0.008	80	170	60	17

Laboratory:	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB
Instrument:	309	101	101	101	114
Det. Limit:	0.008	5.000	5.000	5.000	1.000

GOLDFIELDS EXPLORATION PTY.LTD. DATA SHEET

GRID:DOLCOATH

MAP-PHOTO:CETHANA 2-PROJECT:NARRAWA REF.:SOIL SAMPLES
SAMPLER:ROBERTS/N.POLTOCK

SAMPLE IDENT.	NORTH	EAST	SAMT	SPARE1	COLOUR	COMP	AU PPM	CU PPM	PB PPM	ZN PPM	AS PPM
T 8563	5100	6000	SM	0.9	F	CS	0.040	10	75	15	14
T 6514	5075	6000	SH	1.0	FB	CS	0.133	20	30	10	3
T 8561	5050	6000	SM	1.2	TG	S	-0.008	10	40	10	5
T 8560	5025	6000	SM	0.4	LT		3.100	25	65	30	8
T 8559	5000	6000	SM	2.8	LT		-0.008	55	105	40	5
T 8558	4975	6000	SM	2.0	LG	S	-0.008	15	65	15	8
T 6536	4950	6000	SH	1.0	BG	SG	0.017	10	135	15	150
T 8556	4925	6000	SM	1.6	B	CS	-0.008	15	50	15	4
T 8555	4900	6000	SM	1.3	TF	S	0.510	65	165	100	24
T 8554	4875	6000	SM	1.6	FB	S	-0.008	-5	5	15	3
T 5540	4850	6000	SH	0.8	G	SG	0.008	-5	5	-5	-1
T 8553	4825	6000	SM	1.0	G	SG	-0.008	-5	-5	25	4
T 8552	4775	6000	SM	1.6	FT	SC	-0.008	50	70	30	10
T 8551	4750	6000	SM	1.2	GB	S	-0.008	-5	-5	5	2
T 8550	4725	6000	SM	1.0	DG	G	-0.008	5	5	10	2
T 8549	4700	6000	SM	2.2	F	S	0.300	15	1550	110	83
T 8548	4675	6000	SM	1.4	TB	S	-0.008	5	255	10	3
T 8547	4650	6000	SM	0.9	GB	S	-0.008	5	-5	10	3
T 8546	4625	6000	SM	0.8	G	SG	-0.008	5	-5	5	1
T 8545	4600	6000	SM	0.6	GB	G	-0.008	5	-5	10	1
T 6568	5200	6050	SH	0.9	FG	S	-0.008	5	25	5	18
T 6569	5175	6050	SH	1.0	T	SG	0.040	60	75	35	12
T 6570	5150	6050	SH	0.7	T	SG	0.050	20	70	35	12
T 6571	5125	6050	SH	1.0	T	CS	0.017	15	70	50	35
T 6572	5100	6050	SH	1.0			0.017	40	65	25	10
T 6573	5075	6050	SH	1.0	T	C	0.017	30	70	40	25
T 6574	5050	6050	SH	1.0		S	0.032	-5	10	5	3
T 6575	5025	6050	SH	0.8	G	S	0.008	-5	25	5	2
T 6576	5000	6050	SH	1.0	TOB	C	0.017	20	25	15	20
T 6577	4975	6050	SH	0.6	T	SG	0.017	-5	15	5	1
T 8579	5600	6100	SM	0.8	G	G	-0.008	10	30	20	12
T 6645	5575	6100	SH	0.8	G	CS	0.008	35	40	15	45
T 8581	5550	6100	SM	1.4	DB		-0.008	10	35	30	27
T 8582	5525	6100	SM	1.0	TDB		-0.008	10	25	20	14
T 8583	5500	6100	SM	1.0	TB		0.030	15	35	30	15

Laboratory:	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB
Instrument:	309	101	101	101	114
Det. Limit:	0.008	5.000	5.000	5.000	1.000

GOLDFIELDS EXPLORATION PTY.LTD. DATA SHEET

GRID:DOLCOATH

MAP-PHOTO:CETHANA 2-PROJECT:NARRAWA REF.:SOIL SAMPLES
SAMPLER:ROBERTS/N.POLTOCK

044

SAMPLE IDENT.	NORTH	EAST	SAMT	SPARE1	COLOUR	COMP	AU PPM	CU PPM	PB PPM	ZN PPM	AS PPM
T 6649	5450	6100	SH	1.0	T	SG	-0.008	65	40	90	38
T 6650	5425	6100	SH	0.8	GR	S	-0.008	5	10	10	6
T 6651	5375	6100	SH	0.8	T	S	-0.008	30	45	40	17
T 6652	5350	6100	SH	0.6	G	SG	-0.008	5	-5	5	17
T 6653	5325	6100	SH	0.8	G	SG	-0.008	5	-5	10	9
T 6654	5300	6100	SH	1.0	T	C	-0.008	105	120	20	530
T 6655	5275	6100	SH	1.0	G	CS	-0.008	-5	-5	5	13
T 6656	5250	6100	SH	0.6	G	S	-0.008	5	-5	5	6
T 4587	5175	6100	SH		T	C	0.017	10	45	15	23
T 4586	5150	6100	SH		T	C	0.067	20	90	25	76
T 6580	5125	6100	SH	1.0	T	S	0.083	20	165	35	44
T 6579	5100	6100	SH	1.0	TOB	CS	0.067	10	90	45	20
T 6578	5075	6100	SH	1.0	T	CS	0.008	-5	45	20	7
T 6567	5050	6100	SH	1.0	TB	CS	0.017	10	45	25	15
T 8634	5025	6100	SM	1.1	BT	CS	0.070	15	75	80	16
T 8597	5000	6100	SM	1.3	BT	S	0.010	30	85	60	12
T 8596	4975	6100	SM	2.4	FE	S	0.040	25	60	25	34
T 8595	4950	6100	SM	1.2	F	S	-0.008	80	130	100	7
T 8594	4925	6100	SM	1.4	GE	S	-0.008	-5	40	30	3
T 8593	4900	6100	SM	1.1	LG	S	-0.008	-5	5	10	3
T 8592	4875	6100	SM	1.2	LG	S	-0.008	5	-5	5	2
T 6559	4850	6100	SH	0.6	G	S	0.008	-5	-5	-5	1
T 8591	4825	6100	SM	1.0	G	SG	-0.008	5	10	5	5
T 8590	4800	6100	SM	1.0	FB	CS	-0.008	165	60	20	19
T 8589	4775	6100	SM	1.0	GB	CS	-0.008	5	35	10	3
T 8588	4750	6100	SM	0.9	FB	S	0.150	-5	30	10	3
T 6554	4725	6100	SH	1.0	G	SG	-0.008	-5	210	10	1
T 8586	4700	6100	SM	1.2	GF	CS	-0.008	10	715	25	3
T 8585	4675	6100	SM	0.9	F	S	0.010	-5	50	5	4
T 8584	4650	6100	SM	0.9	G	S	-0.008	-5	10	15	2
T 6550	4600	6100	SH	0.7	G	SG	0.008	-5	-5	-5	1
T 6663	5550	6200	SH	1.0	BG	S	-0.008	-5	-5	10	45
T 6662	5480	6200	SH	1.0	B	CS	-0.008	40	45	40	27
T 6661	5450	6200	SH	1.0	T	CS	0.017	150	60	125	95
T 6660	5425	6200	SH	0.8	T	CS	-0.008	80	30	75	15

Laboratory:	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB
Instrument:	309	101	101	101	114
Det. Limit:	0.008	5.000	5.000	5.000	1.000

850045

GOLDFIELDS EXPLORATION PTY.LTD. DATA SHEET

GRID:DOLCOATH

MAP-PHOTO:CETHANA 2-PROJECT:NARRAWA REF.:SOIL SAMPLES
SAMPLER:ROBERTS/N.POLTOCK

SAMPLE IDENT.	NORTH	EAST	SAMT	SPARE1	COLOUR	COMP	AU PPM	CU PPM	PB PPM	ZN PPM	AS PPM
T 6659	5400	6200	SH	0.7	T	CS	-0.008	50	30	70	37
T 6658	5350	6200	SH	0.7	T	CS	-0.008	35	15	30	18
T 6657	5325	6200	SH	1.0	T	S	0.067	30	30	30	45
T 6581	5300	6200	SH	1.0	T	S	0.108	40	50	60	470
T 6582	5275	6200	SH	1.0	T	S	0.717	175	255	305	4850
T 6583	5250	6200	SH	0.9	T	S	0.032	10	35	30	20
T 6584	5225	6200	SH	0.9	T	S	0.017	5	10	20	25
T 6585	5200	6200	SH	1.0	TG	CS	0.158	5	95	15	26
T 6586	5175	6200	SH	0.7	TOB	C	0.067	230	110	45	1980
T 6587	5150	6200	SH	1.0	G	S	0.067	-5	-5	10	12
T 6588	5125	6200	SH	1.0	GT	SG	0.017	-5	-5	15	5
T 6589	5100	6200	SH	1.0	GOB	CS	0.017	10	35	30	48
T 6590	5050	6200	SH	1.0	G		0.017	5	5	5	6
T 8635	5025	6200	SM	1.6	DG	S	0.110	5	160	60	5
T 8598	5000	6200	SM	2.4	N	S	3.890	110	90	20	22
T 6593	4975	6200	SH	1.0	G	S	0.040	-5	-5	5	3
T 8600	4950	6200	SM	0	G	S	-0.008	-5	10	10	3
T 8601	4925	6200	SM	1.4	G	S	-0.008	-5	20	5	2
T 6596	4900	6200	SH	1.0	G	SG	-0.008	5	25	10	20
T 6597	4875	6200	SH	1.0	G	SG	-0.008	5	-5	5	25
T 8604	4850	6200	SM	0.8	G	S	0.020	-5	10	5	2
T 8605	4825	6200	SM	0.7	G	S	-0.008	5	15	5	2
T 8606	4800	6200	SM	0.8	G	SG	-0.008	-5	5	5	-1
T 8607	4775	6200	SM	2.1	DG	SG	-0.008	-5	15	5	1
T 8608	4750	6200	SM	1.6	GB	S	-0.008	5	5	-5	3
T 8609	4725	6200	SM	0.8	G	SG	-0.008	-5	35	10	2
T 8610	4700	6200	SM	1.4	B	S	-0.008	-5	60	5	3
T 8611	4675	6200	SM	1.6	BT	CS	-0.008	15	80	60	85
T 8612	4650	6200	SM	1.5	BT	CS	-0.008	-5	45	15	6
T 8613	4625	6200	SM	0.7	GB	S	-0.008	-5	40	10	3
T 8614	4600	6200	SM	1.5	F	S	-0.008	5	30	10	4
T 6643	5575	6300	SH	0.7	G	SG	0.032	5	-5	15	7
T 6642	5550	6300	SH	0.7	G	SG	-0.008	-5	-5	10	12
T 6641	5525	6300	SH	1.0	G	SG	-0.008	10	-5	10	5
T 6640	5500	6300	SH	1.0	GB	SG	-0.008	-5	-5	10	8

Laboratory:	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB
Instrument:	309	101	101	101	114
Det. Limit:	0.008	5.000	5.000	5.000	1.000

045

850046

GOLDFIELDS EXPLORATION PTY.LTD. DATA SHEET

GRID:DOLCOATH

MAP-PHOTO:CETHANA 2-PROJECT:NARRAWA REF.:SOIL SAMPLES
SAMPLER:ROBERTS/N.POLTOCK

SAMPLE IDENT.	NORTH	EAST	SAMT	SPARE1	COLOUR	COMP	AU PPM	CU PPM	PB PPM	ZN PPM	AS PPM
T 6639	5475	6300	SH	0.1	G	SG	-0.008	10	-5	10	9
T 6638	5450	6300	SH	1.0	T	S	-0.008	30	35	20	100
T 6637	5400	6300	SH	0.8	T	S	0.017	15	45	25	38
T 6636	5375	6300	SH	1.0	DB	C	0.100	60	60	130	400
T 6635	5325	6300	SH	1.0	DB	CS	0.032	50	45	85	98
T 6634	5300	6300	SH	1.0	T	CS	0.167	65	50	80	97
T 6633	5275	6300	SH	0.9	GB	S	0.267	460	205	1550	55
T 6632	5250	6300	SH	1.0	FGO	SG	0.040	25	15	25	13
T 6631	5225	6300	SH	1.0	OBR	SG	0.092	35	60	50	31
T 6630	5200	6300	SH	1.0	GR	SG	0.100	5	45	10	8
T 6629	5175	6300	SH	0.7	TG	S	0.142	5	50	20	4
T 6628	5150	6300	SH	1.0	GR	CS	0.025	20	55	30	75
T 8632	5125	6300	SM	1.6	GB	CS	0.090	60	110	400	1100
T 8631	5100	6300	SM	2.0	G	SG	0.020	10	45	5	2
T 6625	5075	6300	SH	1.0	G	SG	-0.008	10	-5	10	2
T 8630	5050	6300	SM	1.5	T	S	0.010	-5	15	5	3
T 8629	5025	6300	SM	0.9	LG	SG	0.020	-5	5	10	2
T 8628	5000	6300	SM	0.8	G	SG	-0.008	5	15	5	3
T 8627	4950	6300	SM	0.8	G	SG	-0.008	5	-5	15	3
T 8626	4925	6300	SM	1.3	G	SG	-0.008	-5	10	10	4
T 8625	4900	6300	SM	0.8	G	SG	-0.008	5	10	5	2
T 8624	4875	6300	SM	1.3	LG	SG	0.020	-5	15	5	4
T 8623	4850	6300	SM	1.5	GB	S	0.150	-5	70	10	4
T 8622	4825	6300	SM	0.8	LG	SG	-0.008	5	5	15	3
T 8621	4800	6300	SM	0.8	TB	CS	-0.008	10	40	10	7
T 6614	4775	6300	SH	0.7	G	SG	0.008	-5	-5	10	1
T 8620	4750	6300	SM	0.8	G	SG	0.020	20	30	75	220
T 8619	4725	6300	SM	1.0	TB	S	0.020	-5	20	10	3
T 8618	4700	6300	SM	1.3	TB	S	0.010	5	50	15	4
T 8617	4675	6300	SM	0.8	G	SG	0.010	-5	135	10	3
T 8616	4650	6300	SM	0.9	G	SG	-0.008	-5	35	10	2
T 8615	4625	6300	SM	1.0	GB	SG	-0.008	5	430	15	31
T 6672	5500	6400	SH	1.0	T	C	0.017	35	15	25	130
T 6671	5400	6400	SH	0.7	LT	C	0.117	80	40	85	45
T 6670	5375	6400	SH	1.0	LT	C	0.032	50	35	80	32
Laboratory:							ANALAB	ANALAB	ANALAB	ANALAB	ANALAB
Instrument:							309	101	101	101	114
Det. Limit:							0.008	5.000	5.000	5.000	1.000

046

850041

GOLDFIELDS EXPLORATION PTY.LTD. DATA SHEET

GRID:DOLCOATH

MAP-PHOTO:CETHANA 2-PROJECT:NARRAWA REF.:SOIL SAMPLES
SAMPLER:ROBERTS/N.POLTOCK

	SAMPLE IDENT.	NORTH	EAST	SAMT	SPARE1	COLOUR	COMP	AU PPM	CU PPM	PB PPM	ZN PPM	AS PPM
T	6669	5350	6400	SH	0.7	B	SG	0.017	160	30	50	24
T	6668	5325	6400	SH	1.0	T	CS	0.032	10	30	40	90
T	6667	5300	6400	SH	0.4	T	CS	0.008	35	40	35	64
T	6666	5275	6400	SH	1.0	TG	CS	0.008	35	40	20	130
T	6665	5250	6400	SH	1.0	T	CS	0.183	100	65	20	10
T	6664	5225	6400	SH	1.0	T	CS	-0.008	10	15	25	6
T	6697	5200	6400	SH	0.8	T	CS	0.967	30	30	30	9
T	6696	5175	6400	SH	1.0	G	SG	0.008	5	-5	5	2
T	6695	5150	6400	SH	0.9	G	GR	0.017	10	-5	10	1
T	6694	5075	6400	SH	1.0	GT	GR	0.083	45	-5	10	13
T	6693	5050	6400	SH	1.0	G	GR	-0.008	10	-5	5	1
T	6692	5025	6400	SH	1.0	G	S	-0.008	5	-5	10	1
T	8636	5000	6400	SM	1.4	LG	S	-0.008	5	15	15	2
T	8637	4975	6400	SM	1.3	LG	S	-0.008	-5	10	10	3
T	8638	4950	6400	SM	0.8	LG	S	-0.008	5	10	5	6
T	8639	4925	6400	SM	1.6	G	S	0.130	5	15	5	6
T	8640	4900	6400	SM	1.0	LG	S	0.040	5	10	5	1
T	8641	4875	6400	SM	1.0	G	SG	0.020	10	25	25	14
T	8642	4850	6400	SM	0.8	G	SG	-0.008	5	5	-5	1
T	8643	4825	6400	SM	0.9	G	SG	-0.008	5	15	5	1
T	8644	4800	6400	SM	1.2	F	CS	-0.008	5	50	10	7
T	8645	4775	6400	SM	0.8	GT	S	-0.008	40	25	15	20
T	8646	4750	6400	SM	0.9	DG	S	-0.008	30	35	25	5
T	8647	4725	6400	SM	0.6	DG	S	-0.008	330	35	570	1600
T	8648	4700	6400	SM	1.2	LG	S	-0.008	10	15	20	18
T	6744	4600	6400	SH	1.0	G	S	-0.008	15	20	10	2
T	6743	4575	6400	SH	0.6	G	SG	-0.008	10	25	10	-1
T	6742	4550	6400	SH	1.0	G	SG	-0.008	10	10	10	-1
T	6741	4525	6400	SH	0.4	G	SG	-0.008	15	35	10	8
T	6740	4500	6400	SH	1.0	TOB	CS	-0.008	30	85	55	14
T	6739	4475	6400	SH	0.6	G	C	-0.008	-5	75	-5	7
T	6738	4450	6400	SH	0.8	GOB	SG	-0.008	-5	50	-5	5
T	6737	4425	6400	SH	0.7	G	SG	-0.008	5	45	-5	4
T	6736	4400	6400	SH	0.9	BT	SG	-0.008	5	25	5	6
T	6735	4375	6400	SH	0.8	TG	SG	-0.008	10	20	20	10

Laboratory:	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB
Instrument:	309	101	101	101	114
Det. Limit:	0.008	5.000	5.000	5.000	1.000

GOLDFIELDS EXPLORATION PTY.LTD. DATA SHEET

GRID:DOLCOATH

MAP-PHOTO:CETHANA 2-PROJECT:NARRAWA REF.:SOIL SAMPLES
SAMPLER:ROBERTS/N.POLTOCK

SAMPLE IDENT.	NORTH	EAST	SAMT	SPARE1	COLOUR	COMP	AU PPM	CU PPM	PB PPM	ZN PPM	AS PPM
T 6734	4350	6400	SH	0.8	B	CS	-0.008	30	15	60	14
T 6733	4325	6400	SH	1.0	B	CS	-0.008	15	15	30	4
T 6732	4300	6400	SH	1.0	B	CS	0.083	15	20	45	3
T 6731	4275	6400	SH	0.9	T	CS	0.017	15	210	80	10
T 6730	4250	6400	SH	0.7	T	C	-0.008	10	35	45	9
T 6729	4225	6400	SH	0.9	LT	CS	-0.008	15	45	65	7
T 6728	4200	6400	SH	1.0	T	CS	-0.008	10	25	20	3
T 6673	5475	6500	SH	0.3	T	CS	-0.008	55	35	45	98
T 6674	5450	6500	SH	1.0	T	C	-0.008	50	65	70	280
T 6675	5400	6500	SH	1.0	T	S	-0.008	80	105	75	900
T 6676	5375	6500	SH	0.9	T	S	-0.008	15	20	35	89
T 6677	5350	6500	SH	0.7	TB	CS	-0.008	45	20	60	25
T 6678	5325	6500	SH	0.7	T	CS	-0.008	55	15	35	32
T 6679	5300	6500	SH	0.8	T	CS	-0.008	55	10	30	52
T 6680	5275	6500	SH	1.0	OB	CS	0.025	35	15	45	72
T 6681	5250	6500	SH	0.7	T	CS	0.017	25	10	25	27
T 6682	5225	6500	SH	0.8	T	CS	0.008	30	10	35	23
T 6683	5175	6500	SH	0.8	TY	CS	0.008	40	20	45	38
T 6684	5150	6500	SH	1.0	TY	CS	0.025	95	30	50	67
T 6685	5125	6500	SH	0.9	TY	CS	0.008	10	-5	20	13
T 6686	5100	6500	SH	1.0	OB	SG	0.092	40	10	15	25
T 6687	5075	6500	SH	0.4	GB	SG	0.008	-5	-5	5	1
T 6688	5050	6500	SH	0.7	LG	SG	0.032	-5	-5	5	2
T 6689	5025	6500	SH	0.8	FG	CS	-0.008	10	-5	10	29
T 6690	5000	6500	SH	0.7	GB	SG	0.008	-5	-5	5	5
T 6708	4975	6500	SH	1.0	OB	CS	0.017	20	15	-5	14
T 6709	4950	6500	SH	0.4	G	SG	0.032	-5	-5	-5	2
T 6710	4875	6500	SH	1.0	T	S	0.017	35	15	140	5
T 6711	4800	6500	SH	0.9	G	SG	-0.008	20	-5	-5	5
T 6712	4675	6500	SH	0.7	G	SG	0.032	5	-5	-5	2
T 6713	4650	6500	SH	0.6	BF	SG	0.032	20	10	10	7
T 6714	4625	6500	SH	1.5	GB	CS	0.008	40	15	50	60
T 6715	4600	6500	SH	0.9			0.050	20	55	30	14
T 6716	4575	6500	SH	1.0	TB	C	0.008	35	65	25	14
T 6717	4550	6500	SH	1.6	TB	CS	-0.008	45	85	40	25

Laboratory:	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB
Instrument:	309	101	101	101	114
Det. Limit:	0.008	5.000	5.000	5.000	1.000

048

850049

GOLDFIELDS EXPLORATION PTY.LTD. DATA SHEET

GRID:DOLCOATH

MAP-PHOTO:CETHANA 2-PROJECT:NARRAWA REF.:SOIL SAMPLES
SAMPLER:ROBERTS/N.POLTOCK

SAMPLE IDENT.	NORTH	EAST	SAMT	SPARE1	COLOUR	COMP	AU PPM	CU PPM	PB PPM	ZN PPM	AS PPM
T 6718	4525	6500	SH	1.4	GB	S	0.008	50	60	45	7
T 6719	4500	6500	SH	0.7	G	CS	-0.008	15	20	15	3
T 6720	4475	6500	SH	1.6	TG	CS	-0.008	40	60	70	6
T 6721	4450	6500	SH	1.6	TG	CS	-0.008	35	75	60	8
T 6722	4375	6500	SH	0.4	G	SG	-0.008	20	35	10	7
T 6723	4350	6500	SH	1.0	B	CS	-0.008	25	65	40	8
T 6724	4325	6500	SH	1.0	GT	SG	-0.008	5	30	-5	3
T 6725	4300	6500	SH	1.0	TB	G	-0.008	10	25	30	10
T 6726	4275	6500	SH	1.0	T	CS	0.242	20	45	10	250
T 6727	4250	6500	SH	2.0	T	G	0.100	10	70	20	67
T 6757	5600	6600	SH	1.0	DB	CS	-0.008	65	10	25	46
T 6758	5575	6600	SH	1.0	DB	CS	0.032	105	30	30	150
T 6759	5550	6600	SH	0.9	RB	CS	-0.008	40	25	30	340
T 6760	5525	6600	SH	1.0	DB	CS	-0.008	65	30	60	460
T 6761	5500	6600	SH	1.0	RB	CS	0.017	65	25	70	380
T 6762	5475	6600	SH	0.7	DB	CS	0.100	195	35	255	900
T 6763	5450	6600	SH	0.9	DB	CS	0.017	60	30	110	100
T 6764	5425	6600	SH	1.0	OB	SG	-0.008	35	35	80	18
T 6765	5400	6600	SH	0.7	B	CS	0.092	55	20	65	80
T 6766	5375	6600	SH	1.0	B	CS	-0.008	60	35	60	41
T 6767	5350	6600	SH	1.0	OB	SGR	-0.008	10	-5	15	1
T 6768	5325	6600	SH	0.7	B	CSGR	-0.008	10	10	15	4
T 6769	5300	6600	SH	1.0	F	SGR	0.017	15	25	15	11
T 6770	5275	6600	SH	1.0	GT	SGR	0.008	15	5	20	17
T 6771	5250	6600	SH	0.9	T	CSGR	0.008	15	-5	15	12
T 6772	5220	6600	SH	1.0	T	SGR	0.050	40	20	20	51
T 6773	5200	6600	SH	1.0	T	SGR	0.025	50	10	25	13
T 6774	5175	6600	SH	0.7	G	SGR	0.017	10	-5	10	-1
T 6775	5150	6600	SH	0.9	B	SGR	0.067	15	-5	15	17
T 6776	5125	6600	SH	1.0	T	SGR	0.008	15	-5	15	11
T 6777	5100	6600	SH	1.0	T	CSGR	0.032	35	20	25	20
T 6778	5075	6600	SH	1.0	T	SGR	0.032	35	10	35	22
T 6779	5025	6600	SH	0.3	G	GR	0.025	20	-5	10	1
T 6780	5000	6600	SH	0.5	GB	SGR	0.032	10	10	15	8
T 6781	4975	6600	SH	1.0	B	CSGR	0.025	15	-5	20	35
Laboratory:							ANALAB	ANALAB	ANALAB	ANALAB	ANALAB
Instrument:							309	101	101	101	114
Det. Limit:							0.008	5.000	5.000	5.000	1.000

GOLDFIELDS EXPLORATION PTY.LTD. DATA SHEET

GRID:DOLCOATH

MAP-PHOTO:CETHANA 2-PROJECT:NARRAWA REF.:SOIL SAMPLES
SAMPLER:ROBERTS/N.POLTOCK

SAMPLE IDENT.	NORTH	EAST	SAMT	SPARE1	COLOUR	COMP	AU PPM	CU PPM	PB PPM	ZN PPM	AS PPM
T 6782	4950	6600	SH	1.0	TG	SGR	0.100	55	10	20	50
T 6783	4925	6600	SH	1.0	GF	SGR	0.017	10	-5	10	12
T 6784	4850	6600	SH	1.0	GB	SGR	0.040	40	5	15	10
T 6785	4825	6600	SH	0.8	BT	SGR	0.008	25	-5	20	22
T 6786	4800	6600	SH	1.0	B	SGR	0.025	80	15	40	14
T 6787	4775	6600	SH	0.8	B	SGR	0.008	15	-5	30	10
T 6788	4750	6600	SH	1.0	OB	SGR	-0.008	60	15	35	60
T 6789	4725	6600	SH	1.0	T	CSGR	-0.008	30	-5	30	14
T 6790	4665	6600	SH	1.0	T	CSGR	-0.008	15	-5	25	20
T 6791	4650	6600	SH	1.0	GB	SGR	-0.008	40	-5	20	22
T 6792	4625	6600	SH	0.7	G	SGR	0.017	10	-5	10	4
T 6756	5600	6700	SH	0.8	B	CS	0.008	40	40	25	130
T 6755	5575	6700	SH	0.9	B	S	-0.008	15	15	10	36
T 6754	5550	6700	SH	1.0	OB	GR	-0.008	25	30	20	12
T 6753	5525	6700	SH	1.0	B	GR	-0.008	20	10	15	9
T 6752	5500	6700	SH	1.0	OB	GR	0.017	20	35	15	4
T 6751	5475	6700	SH	1.0	OB	GR	0.017	30	20	25	13
T 6750	5450	6700	SH	1.0	B	GR	0.017	30	30	20	15
T 6749	5425	6700	SH	1.0	T	GR	0.008	45	15	30	110
T 6748	5400	6700	SH	1.0	TOB	S	0.008	50	25	35	52
T 6747	5375	6700	SH	1.0	TOB	C	-0.008	25	20	25	25
T 6805	5350	6700	SH	1.0	T	SGR	0.050	25	-5	30	20
T 6804	5325	6700	SH	1.0	TB	CSGR	-0.008	10	-5	20	11
T 6803	5300	6700	SH	0.6	TB	CSGR	-0.008	5	-5	10	5
T 6802	5275	6700	SH	1.0	GT	SGR	0.032	5	-5	10	4
T 6801	5250	6700	SH	1.0	T	SGR	0.050	35	-5	20	21
T 6800	5200	6700	SH	0.7	B	CSGR	-0.008	25	10	15	11
T 6799	5175	6700	SH	0.5	BT	SGR	-0.008	15	-5	15	35
T 6798	5150	6700	SH	1.0	B	SGR	0.008	15	-5	15	22
T 6797	5125	6700	SH	0.8	TB	SGR	0.117	180	30	65	19
T 6796	5075	6700	SH	0.8	B	SGR	0.008	15	-5	10	21
T 6795	5050	6700	SH	1.0	TB	GR	-0.008	10	-5	20	18
T 6794	5025	6700	SH	1.0	TB	GR	-0.008	20	-5	15	14
T 6793	5000	6700	SH	1.0	T	GR	0.040	30	-5	20	110

Laboratory:	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB
Instrument:	309	101	101	101	114
Det. Limit:	0.008	5.000	5.000	5.000	1.000

Appendix 2.2

Geochemical Assay Results and Descriptions

Channel Rock Samples

GOLDFIELDS EXPLORATION PTY.LTD. DATA SHEET

CODE:5513

SCALE:250 GRID:DOLCOATH
SAMPLER:R.H.ROBERTS REF.:NARRAWA REWARD ADIT
SAMT:CHANNEL SAMPLE

SAMPLE IDENT.	AU PPM	CU PPM	PB PPM	ZN PPM	AG PPM	AS PPM	SN PPM	W PPM	MO PPM
T 5101	0.358	275	1100	40	5.0	900	180	50	-3
T 5102	4.900	320	4850	45	52.0	19000	270	990	-3
T 5103	1.300	270	1450	60	5.5	3800	780	140	4
T 5104	0.467	350	2050	60	8.5	2000	1550	60	10
T 5105	0.308	185	1950	55	12.0	1200	520	60	10
T 5106	0.300	135	1900	70	4.5	500	560	25	-3
T 5107	0.267	135	2700	225	4.5	400	520	35	-3
T 5108	0.192	210	4500	190	6.5	1600	370	60	6
T 5109	1.200	310	13500	700	42.0	700	710	35	-3
T 5110	0.067	60	2250	390	4.5	160	220	-10	-3
T 5111	2.550	210	10000	2900	14.0	900	390	11	3
T 5112	0.550	450	10500	3750	15.0	2400	200	16	-3
T 5113	4.020	1400	10500	14000	44.0	2700	660	26	4
T 5114	1.650	405	1800	1400	14.5	2400	95	48	8
T 5115	0.508	255	2050	45	9.0	10000	100	80	3
T 5116	0.617	395	3350	55	9.0	15000	80	650	4
T 5117	1.220	195	1900	85	2.5	5000	70	1200	75
T 5118	0.692	135	470	20	1.0	2800	120	75	7
T 5119	0.167	265	585	5	1.0	3100	75	45	-3
T 5120	0.200	490	765	10	1.0	5200	70	60	5
T 5121	0.367	180	1550	5	-0.5	1700	150	45	3
T 5123	0.167	195	1550	10	-0.5	3000	130	30	7
T 5124	0.817	160	1650	10	3.0	15000	100	60	10
T 5125	0.233	170	190	30	3.0	1700	114	70	10
T 5126	0.283	185	130	5	0.5	3800	140	50	5
T 5127	0.092	385	755	45	2.5	3400	90	35	6
T 5128	0.017	140	30	10	-0.5	100	45	55	6
T 5129	0.217	290	110	10	1.0	1000	50	60	3
T 5130	0.050	125	100	5	-0.5	350	35	80	-3
T 5131	0.958	290	250	15	2.5	710	80	80	3
T 5132	0.833	675	640	10	1.0	3800	45	100	3
T 5133	0.130	705	1100	10	1.5	260	25	55	-3
T 5134	1.770	555	740	10	3.0	12000	35	45	-3
T 5135	2.280	9700	360	565	66.0	172000	240	1950	5
T 5136	2.820	4200	495	185	27.0	52000	110	1800	8

Laboratory:	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB
Instrument:	309	101	101	101	101	114	401	401	401
Det. Limit:	0.008	5.000	5.000	5.000	0.500	1.000	3.000	10.000	3.000

052

850053

GOLDFIELDS EXPLORATION PTY.LTD. DATA SHEET

CODE:5513

SCALE:250 GRID:DOLCOATH
SAMPLER:R.H.ROBERTS REF.:NARRAWA REWARD ADIT
SAMT:CHANNEL SAMPLE

SAMPLE IDENT.		AU PPM	CU PPM	PB PPM	ZN PPM	AG PPM	AS PPM	SN PPM	W PPM	MO PPM
T	5137	1.220	155	585	15	0.5	2200	45	290	10
T	5138	0.525	235	220	10	1.0	9300	70	50	7
T	5139	2.850	585	1700	20	6.0	18000	45	160	8
T	5141	0.508	230	1150	20	4.0	12000	100	45	-3
T	5142	1.100	615	2700	50	43.0	20000	260	620	6
T	5143	6.470	4150	6850	1400	395.0	53500	480	750	3
T	5144	1.600	1020	45500	6650	63.0	18500	610		6
T	5145	2.580	835	62500	33000	103.0	4600	3400		4
T	5146	5.470	745	3350	2050	75.5	3400	4150	30	5
T	5147	2.820	705	7500	235	54.5	3800	2000	55	-3
T	5148	0.358	155	2150	75	5.0	1300	350	20	5
T	5149	0.075	100	2200	50	4.5	1000	180	-10	-3
T	5150	0.040	165	1650	60	2.5	900	300	25	3
T	5151	0.950	935	5850	130	27.5	2800	300	80	9
T	5152	1.380	780	6150	130	32.0	3900	200	50	10
T	5153	0.333	225	2300	85	17.0	1100	400	35	3
T	5154	0.383	65	2350	30	8.5	400	190	40	-3
T	5155	0.050	70	1800	25	1.5	550	130	15	-3
T	5156	2.080	825	15000	570	43.0	15000	830	210	15
T	5157	3.930	455	12500	16000	15.0	5300	490	27	3
T	5158	2.880	520	39000	40000	46.0	600	170	27	10
T	5159	0.617	380	6500	8850	36.5	300	330	9	-3
T	5160	0.392	725	905	585	8.0	1200	290	30	15
T	5162	0.383	480	1250	45	4.0	160	140	140	5
T	5163	0.575	440	1200	50	2.5	7700	50	790	55
T	5164	0.158	330	6050	230	16.5	3700	140	50	3
T	5165	0.317	295	2850	70	4.5	1800	180	55	5
T	5166	0.117	90	650	45	-0.5	130	75	30	5
T	5167	0.133	65	300	25	-0.5	37	65	35	5
T	5168	0.032	100	490	35	-0.5	400	180	30	7
T	5169	0.158	420	5450	715	9.5	1700	180	50	15
T	5170	1.830	620	7500	30	23.5	6800	120	300	-3
T	5171	0.517	735	260	30	1.5	300	30	50	10

Laboratory:	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB
Instrument:	309	101	101	101	101	114	401	401	401
Det. Limit:	0.008	5.000	5.000	5.000	0.500	1.000	3.000	10.000	3.000

053

850054

GOLDFIELDS EXPLORATION PTY.LTD. DATA SHEET

CODE:5518

SCALE:250 GRID:DOLCOATH
SAMPLER:R.H.ROBERTS REF.:HIGGS WORKINGS
SAMT:CHANNEL SAMPLE

	SAMPLE IDENT.	AU PPM	CU PPM	PB PPM	ZN PPM	AG PPM	AS PPM	SN PPM	W PPM	MO PPM
T	5172	2.800	410	8750	2900	20.5	13	20	10	5
T	5173	2.170	440	21500	16500	43.5	8	55	11	4
T	5174	2.760	530	55000	35500	55.5	5	40	48	25
T	5175	12.830	355	31500	18000	40.5	33	30	33	6
T	5176	17.330	500	13500	25500	23.5	120	25	8	10
T	5177	0.075	90	685	180	-0.5	20	85	-10	3
T	5178	0.792	160	700	400	-0.5	56	130	25	6
T	5179	0.242	420	340	290	-0.5	210	360	20	5
T	5180	14.830	1350	29500	125	25.0	150	110	100	7
T	5181	0.392	255	7650	90	6.0	280	50	30	10
T	5183	0.050	70	1200	160	1.0	20	50	10	3
T	5184	4.080	175	3050	1400	9.5	24	85	10	7
T	5185	13.170	520	12500	4900	67.5	19	30	12	7
T	5186	7.000	645	17000	12500	41.0	16	45	18	5
T	5187	8.170	635	27500	12000	47.0	10	25	9	7
T	5188	3.920	515	7850	13500	17.0	8	60	10	10
T	5189	0.392	225	2250	405	1.0	10	120	20	3
T	5190	0.017	170	850	250	0.5	12	40	20	5
T	5191	0.032	175	430	245	-0.5	19	340	-10	-3
T	5192	0.208	230	480	170	1.5	11	540	-10	9
T	5193	0.017	45	295	125	-0.5	14	170	-10	20
T	5194	-0.008	10	65	255	-0.5	13	30	-10	6
T	5195	-0.008	200	100	65	-0.5	10	10	10	10
T	5196	0.008	15	130	55	-0.5	9	7	25	30
T	5197	-0.008	25	355	155	-0.5	14	6	25	20
T	5198	0.117	35	315	140	0.5	6	240	30	30
T	5199	0.025	130	305	430	1.5	9	1100	30	15
T	5200	0.040	60	370	115	0.5	6	350	30	45
T	7114	0.032	65	385	125	-0.5	5	430	15	35
T	7115	0.242	90	220	100	-0.5	6	900	15	4
T	7116	0.017	80	260	275	-0.5	6	200	15	-3
T	7117	0.008	165	1250	220	-0.5	7	45	-10	5
T	7118	3.000	330	4500	230	25.0	15	140	55	3
T	7119	9.000	1150	8350	325	1.0	53	170	110	4
T	7120	6.180	340	1700	200	-0.5	32	170	15	5

Laboratory:	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB
Instrument:	309	101	101	101	101	114	401	401	401
Det. Limit:	0.008	5.000	5.000	5.000	0.500	1.000	3.000	10.000	3.000

054

850055

GOLDFIELDS EXPLORATION PTY.LTD. DATA SHEET

CODE:5518

SCALE:250 GRID:DOLCOATH
SAMPLER:R.H.ROBERTS REF.:HIGGS WORKINGS
SAMT:CHANNEL SAMPLE

	SAMPLE IDENT.	AU PPM	CU PPM	PB PPM	ZN PPM	AG PPM	AS PPM	SN PPM	W PPM	MO PPM
T	7121	0.200	215	2950	220	-0.5	29	110	20	6
T	7122	0.750	630	1350	225	-0.5	8	130	25	4
T	7123	0.892	250	1150	230	-0.5	10	12	-10	6
T	7124	0.150	205	1500	340	-0.5	10	110	-10	-3
T	7125	1.320	370	3350	460	-0.5	16	220	30	6
T	7126	0.867	580	2200	165	-0.5	42	240	35	-3
T	7127	1.720	730	3400	480	18.5	50	300	-10	3
T	7128	0.942	360	4100	720	2.5	16	170	15	-3
T	7129	4.900	1050	6700	1950	13.5	7	480	100	-3
T	7130	1.580	620	9850	640	10.5	3	530	70	-3
T	7131	0.675	480	3550	310	0.5	13	320	20	4
T	7132	0.942	485	4650	340	1.5	18	210	30	-3
T	7133	4.330	820	5150	280	1.0	360	180	40	5
T	7134	2.100	370	4050	320	2.0	17	200	10	-3
T	7135	7.200	570	3050	730	0.5	17	130	15	3
T	7136	2.320	1350	3300	155	0.5	250	800	60	-3
T	7137	0.142	125	715	85	-0.5	13	240	-10	-3
T	7138	0.517	435	430	80	0.5	110	1850	25	-3
T	7139	0.483	545	270	135	-0.5	120	1800	70	4
T	7141	4.110	85	105	35	-0.5	41	90	25	-3
T	7142	1.270	130	145	40	1.0	130	75	25	-3
T	7143	0.567	600	3200	60	0.5	160	1350	160	3
T	7144	9.170	495	265	75	0.5	43	190	-10	-3
T	7145	1.670	315	1250	135	0.5	16	230	120	6
T	7146	11.670	385	530	200	2.0	91	130	75	5
T	7147	0.117	35	270	100	-0.5	13	65	-10	-3
T	7148	0.242	225	250	75	0.5	85	350	120	7
T	7149	17.000	70	435	30	-0.5	43	200	60	4
T	7150	0.200	125	6600	60	0.5	100	230	60	-3
T	7151	0.183	105	8550	40	0.5	98	190	45	9
T	7152	0.350	95	1950	35	-0.5	42	90	35	-3
T	7153	0.050	165	1850	30	-0.5	600	270	30	10
T	7154	3.330	355	3850	115	0.5	1200	340	20	20
T	7155	0.733	340	13000	90	1.0	500	220	60	5
T	7156	0.642	270	5850	65	-0.5	300	200	45	7
Laboratory:		ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB
Instrument:		309	101	101	101	101	114	401	401	401
Det. Limit:		0.008	5.000	5.000	5.000	0.500	1.000	3.000	10.000	3.000

055

850056

GOLDFIELDS EXPLORATION PTY.LTD. DATA SHEET

CODE:5518

SCALE:250 GRID:DOLCOATH
SAMPLER:R.H.ROBERTS REF.:HIGGS WORKINGS
SAMT:CHANNEL SAMPLE

SAMPLE IDENT.	AU PPM	CU PPM	PB PPM	ZN PPM	AG PPM	AS PPM	SN PPM	W PPM	MO PPM
T 7157	0.492	165	8150	75	-0.5	120	230	50	4
T 7158	0.058	95	4200	50	-0.5	43	70	35	9
T 7159	0.032	75	610	40	-0.5	100	95	20	10
T 7161	0.050	100	695	45	-0.5	69	80	15	-3
T 7162	0.083	120	2600	30	-0.5	400	40	55	10
T 7163	0.108	80	1800	30	-0.5	600	60	20	-3
T 7164	0.100	55	4350	25	0.5	72	40	70	3
T 7165	0.083	30	850	35	-0.5	46	35	-10	8
T 7166	0.117	70	2500	50	-0.5	85	110	50	-3
T 7167	0.167	45	275	75	-0.5	34	120	30	-3
T 7168	0.108	40	1750	65	0.5	50	45	35	-3
T 7169	0.125	530	9850	75	0.5	160	90	80	4
T 7170	0.200	225	7500	120	-0.5	250	150	40	-3
T 7171	0.467	155	3200	170	5.5	30	90	-10	-3
T 7172	16.830	355	11500	3550	90.0	13	55	23	10
T 7173	9.500	520	24000	18500	51.0	5	40	11	3
T 7174	2.500	200	7950	1300	7.5	3	40	6	-3
T 7175	0.092	135	5250	350	7.0	25	35	-10	4
T 7176	0.067	95	1900	175	2.0	24	50	-10	-3
T 7177	0.883	10	70	10	0.5	9	65	40	-3
T 7178	0.250	45	220	40	0.5	38	50	100	7
T 7179	0.158	85	460	105	-0.5	49	45	15	-3
T 7181	0.183	90	720	120	0.5	45	35	35	3
T 7182	0.183	80	685	135	0.5	39	50	35	-3
T 7183	0.250	110	745	215	0.5	67	45	35	3
T 7184	0.450	125	2895	235	6.0	29	75	45	4
T 7185	3.000	155	1545	95	4.5	90	45	35	3
T 7186	0.358	80	1495	310	3.0	24	35	25	-3
T 7187	0.700	85	520	45	1.5	46	30	10	-3
T 7188	0.933	90	1345	100	5.0	180	70	20	4
T 7189	2.180	160	1345	170	16.0	73	65	15	-3
T 7190	3.050	140	445	90	2.0	77	85	35	6
T 7191	1.580	375	1495	565	5.0	150	210	45	-3
T 7192	2.830	140	335	105	5.5	38	530	45	10
T 7193	0.283	45	885	70	1.5	73	55	35	3
Laboratory:	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB
Instrument:	309	101	101	101	101	114	401	401	401
Det. Limit:	0.008	5.000	5.000	5.000	0.500	1.000	3.000	10.000	3.000

056

850057

GOLDFIELDS EXPLORATION PTY.LTD. DATA SHEET

CODE:5518

SCALE:250 GRID:DOLCOATH
SAMPLER:R.H.ROBERTS REF.:HIGGS WORKINGS
SAMT:CHANNEL SAMPLE

SAMPLE IDENT.	AU PPM	CU PPM	PB PPM	ZN PPM	AG PPM	AS PPM	SN PPM	W PPM	MO PPM
T 7194	0.125	75	1445	70	2.0	10	55	30	-3
T 7195	0.040	60	1745	80	8.5	17	40	30	3
T 7196	0.129	105	850	85	6.0	25	65	25	4
T 7197	9.000	125	1845	70	6.0	26	60	60	10
T 7198	8.830	95	1045	55	3.0	68	80	60	10
T 7199	0.800	105	265	80	0.5	49	390	30	8
T 7701	1.250	25	100	15	-0.5	51	370	50	5
T 7702	0.225	80	865	110	1.0	16	140	35	4
T 7703	1.680	360	1395	245	18.0	47	760	40	3
T 7704	0.167	45	205	70	-0.5	6	90	25	5
T 7705	0.083	10	145	20	-0.5	5	45	40	-3
T 7706	0.040	40	375	70	1.0	14	45	30	6
T 7707	0.175	15	185	15	-0.5	14	45	30	-3
T 7708	0.025	20	195	25	0.5	37	55	20	-3
T 7709	0.083	10	45	15	-0.5	10	30	40	-3
T 7710	0.050	25	45	25	1.5	31	35	30	3
T 7711	0.050	25	75	40	2.0	47	30	85	7
T 7712	0.032	25	65	50	1.0	27	50	50	6
T 7713	0.040	55	445	85	4.0	19	120	30	6
T 7714	0.025	65	255	75	1.0	26	55	-10	5
T 7715	-0.008	40	615	40	1.5	7	40	15	3
T 7716	0.467	25	335	25	1.5	26	55	-10	-3
T 7717	-0.008	15	195	10	0.5	18	30	-10	-3
T 7718	-0.008	5	215	5	-0.5	13	50	-10	-3
T 7719	0.008	10	365	15	-0.5	15	40	10	3
T 7720	0.067	5	25	5	-0.5	15	25	10	-3
T 7721	-0.008	50	515	35	-0.5	650	30	-10	-3
T 7722	0.442	120	745	40	0.5	1800	85	10	4
T 7724	0.883	65	725	215	4.5	62	65	35	-3
T 7725	2.620	140	2245	515	14.0	65	45	40	10
T 7726	0.083	10	1195	75	0.5	13	90	40	-3
T 7727	-0.008	10	290	5	-0.5	6	40	-10	5
T 7728	0.008	5	170	5	0.5	14	40	-10	-3
T 7729	8.000	5	80	10	-0.5	27	35	-10	4
T 7730	0.032	5	45	5	-0.5	20	30	10	-3

Laboratory:	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB
Instrument:	309	101	101	101	101	114	401	401	401
Det. Limit:	0.008	5.000	5.000	5.000	0.500	1.000	3.000	10.000	3.000

057

850058

GOLDFIELDS EXPLORATION PTY.LTD. DATA SHEET

CODE:5518

SCALE:250 GRID:DOLCOATH
SAMPLER:R.H.ROBERTS REF.:HIGGS WORKINGS
SAMT:CHANNEL SAMPLE

SAMPLE IDENT.		AU PPM	CU PPM	PB PPM	ZN PPM	AG PPM	AS PPM	SN PPM	W PPM	MO PPM
T	7731	0.008	5	30	5	-0.5	56	30	25	3
T	7732	0.167	5	150	10	-0.5	14	40	25	3
T	7733	1.650	5	240	5	-0.5	16	45	35	-3
T	7734	0.317	25	635	15	-0.5	42	35	25	-3
T	7735	0.025	90	550	30	-0.5	20	50	-10	-3
T	7736	0.083	125	1745	110	1.0	25	65	-10	-3
T	7737	1.850	90	80	65	0.5	190	45	100	35
T	7738	9.170	40	70	60	0.5	94	25	100	20
T	7739	1.530	20	20	15	-0.5	80	20	25	25
T	7741	0.142	20	15	10	-0.5	13	20	-10	15
T	7742	0.450	65	25	30	-0.5	97	35	20	9
T	7743	6.920	75	80	35	0.5	120	25	15	55
T	7744	27.230	100	160	50	2.5	260	30	75	50
T	7745	58.670	95	205	30	1.5	230	10	110	50
T	7746	1.900	50	110	10	0.5	110	40	40	40
T	7747	2.900	40	850	15	0.5	38	35	10	35
T	7748	0.917	45	200	15	-0.5	160	35	25	30
T	7749	1.850	50	230	10	0.5	59	45	-10	30
T	7750	1.970	70	665	10	0.5	170	35	25	25
T	7751	1.870	85	805	20	-0.5	62	50	40	15
T	7752	0.017	50	890	20	2.0	20	50	20	15
T	7753	1.970	260	1300	115	1.5	600	35	75	35
T	7754	2.580	215	490	75	2.5	480	35	-10	35
T	7755	9.830	35	260	20	1.0	74	75	20	5
T	7756	0.850	20	460	10	-0.5	88	35	-10	7
T	7757	2.430	15	140	10	-0.5	150	35	-10	8
T	7758	34.170	100	1375	10	5.5	770	120	-10	15
T	7759	2.320	35	300	10	-0.5	97	30	-10	5
T	7761	0.208	10	320	25	-0.5	20	150	-10	-3
T	7762	0.040	40	1125	90	1.0	13	55	-10	-3
T	7763	0.008	25	120	60	0.5	4	25	-10	8
T	7764	0.017	45	240	85	1.5	16	40	-10	10
T	7765	0.317	10	15	10	0.5	94	65	20	6
T	7766	0.200	10	20	10	-0.5	30	40	10	4
T	7815	0.020	20	185	50	-0.5	13	40	24	21

Laboratory:	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB
Instrument:	309	101	101	101	101	114	401	401	401
Det. Limit:	0.008	5.000	5.000	5.000	0.500	1.000	3.000	10.000	3.000

058

850059

GOLDFIELDS EXPLORATION PTY.LTD. DATA SHEET

CODE:5518

SCALE:250 GRID:DOLCOATH
SAMPLER:R.H.ROBERTS REF.:HIGGS WORKINGS
SAMT:CHANNEL SAMPLE

SAMPLE IDENT.		AU PPM	CU PPM	PB PPM	ZN PPM	AG PPM	AS PPM	SN PPM	W PPM	MO PPM
T	7816	0.020	15	470	35	-0.5	13	11	14	34
T	7817	-0.008	25	290	35	-0.5	23	36	13	21
T	7818		95	2090	170	1.0	290			
T	7819	0.540	130	800	470	-0.5	60	103	17	3
T	7820	0.170	230	5225	4720	9.0	90	507	-10	3
T	7822	0.130	205	5800	2400	9.0	830	141	-10	3
T	7823	0.270	330	340	30	1.0	3370	33	27	4
T	7824	0.030	25	120	25	-0.5	99	13	-10	4
T	7825	0.010	65	210	10	-0.5	20	36	-10	-3
T	7826	0.030	45	190	10	-0.5	9	26	18	-3
T	7827	0.030	20	105	15	-0.5	9	67	29	3
T	7828	0.020	185	1275	30	-0.5	21	40	67	31
T	7829	1.590	350	2000	85	-0.5	690	75	90	8
T	7830	0.410	120	640	80	1.0	83	335	44	3
T	7831	0.570	24	930	35	-0.5	6	26	34	-3
T	7832	0.010	95	115	95	-0.5	20	21	37	-3
T	7833	0.020	30	125	40	-0.5	8	14	18	-3
T	7834	1.740	150	390	45	1.0	27	102	39	3
T	7835	0.470	45	175	35	-0.5	11	158	45	-3
T	7836	0.020	40	80	45	-0.5	9	660	131	-3
T	7837	-0.008	50	145	60	-0.5	5	150	79	3
T	7838	1.170	60	435	95	-0.5	8	788	953	11

Laboratory:	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB
Instrument:	309	101	101	101	101	114	401	401	401
Det. Limit:	0.008	5.000	5.000	5.000	0.500	1.000	3.000	10.000	3.000

GOLDFIELDS EXPLORATION PTY.LTD. DATA SHEET

CODE:5518

SCALE:250 GRID:DOLCOATH
SAMPLER:R.H.ROBERTS REF.:NARRAWA ROAD
SAMT:CHANNEL SAMPLE

SAMPLE IDENT.	AU PPM	CU PPM	PB PPM	ZN PPM	AG PPM	AS PPM	SN PPM	W PPM	MO PPM
T 7767	0.133	60	180	170	1.0	23	95	90	40
T 7768	0.050	60	150	125	-0.5	98	55	10	20
T 7769	0.017	90	130	70	-0.5	130	65	15	25
T 7770	0.040	180	990	185	2.0	160	200	30	10
T 7771	0.017	50	190	35	-0.5	140	40	40	25
T 7772	0.900	140	1400	75	2.5	130	1100	20	30
T 7773	2.520	390	6600	1300	50.0	97	510	30	30
T 7774	0.408	225	2600	130	3.0	28	370	85	25
T 7775	2.600	160	1425	180	13.0	100	610	-10	25
T 7776	7.670	405	22300	12800	21.0	170	250	24	20
T 7777	0.040	100	370	125	-0.5	15	60	55	4
T 7778	0.533	150	80	310	0.5	21	150	-10	15
T 7779	-0.008	30	45	45	-0.5	11	45	160	30
T 7781	-0.008	25	30	45	-0.5	16	35	-10	15
T 7782	-0.008	25	25	30	-0.5	15	35	10	15
T 7783	-0.008	30	25	45	-0.5	14	40	20	20
T 7784	0.092	25	25	35	-0.5	15	50	20	25
T 7785	-0.008	55	35	65	-0.5	37	50	10	30
T 7786	0.008	50	50	55	-0.5	20	30	100	30
T 7787	-0.008	25	50	60	-0.5	4	50	-10	20
T 7788	-0.008	45	75	95	-0.5	6	65	-10	20
T 7789	-0.008	45	90	60	-0.5	17	80	-10	10
T 7790	-0.008	35	60	45	-0.5	8	50	-10	15
T 7791	-0.008	20	45	30	-0.5	20	30	-10	15
T 7792	-0.008	10	100	90	-0.5	7	35	10	8
T 7793	-0.008	25	65	80	-0.5	7	40	10	9
T 7794	-0.008	20	10	15	-0.5	26	50	-10	55
T 7795	-0.008	35	10	15	-0.5	12	35	-10	20
T 7796	0.792	30	10	10	-0.5	7	35	-10	35
T 7797	-0.008	20	15	10	-0.5	9	30	-10	30
T 7798	-0.008	30	10	50	-0.5	160	74	-10	22
T 7799	-0.008	20	10	25	-0.5	57	54	-10	23
T 7801	-0.008	15	5	15	-0.5	20	59	-10	24
T 7802	-0.008	15	10	15	-0.5	11	35	36	31
T 7803	-0.008	15	-5	10	-0.5	6	39	76	35

Laboratory:	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB
Instrument:	309	101	101	101	101	114	401	401	401
Det. Limit:	0.008	5.000	5.000	5.000	0.500	1.000	3.000	10.000	3.000

060

850061

GOLDFIELDS EXPLORATION PTY.LTD. DATA SHEET

CODE:5518

SCALE:250 GRID:DOLCOATH
SAMPLER:R.H.ROBERTS REF.:NARRAWA ROAD
SAMT:CHANNEL SAMPLE

SAMPLE IDENT.	AU PPM	CU PPM	PB PPM	ZN PPM	AG PPM	AS PPM	SN PPM	W PPM	MO PPM
T 7804	-0.008	10	-5	5	-0.5	6	68	155	29
T 7805	-0.008	15	-5	10	-0.5	6	68	42	23
T 7806	-0.008	20	-5	10	-0.5	4	70	49	27
T 7807	-0.008	20	-5	12	-0.5	5	32	-10	24
T 7808	-0.008	75	15	30	-0.5	10	44	-10	26
T 7809	-0.008	15	20	10	-0.5	4	90	57	27
T 7810	-0.008	20	10	15	-0.5	17	46	-10	32
T 7811	-0.008	20	5	10	-0.5	8	36	-10	29
T 7812	-0.008	25	10	15	-0.5	5	93	-10	31
T 7813	-0.008	25	135	10	-0.5	11	26	-10	21
T 7814	-0.008	20	25	10	-0.5	80	24	-10	28

Laboratory:	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB
Instrument:	309	101	101	101	101	114	401	401	401
Det. Limit:	0.008	5.000	5.000	5.000	0.500	1.000	3.000	10.000	3.000

061

850062

GOLDFIELDS EXPLORATION PTY.LTD. DATA SHEET

CODE:5518

SCALE:1000 GRID:DOLCOATH
SAMPLER:R.H.ROBERTS REF.:PACKETTS WORKINGS
SAMT:CHANNEL SAMPLE

SAMPLE IDENT.	AU PPM	CU PPM	PB PPM	ZN PPM	AG PPM	AS PPM	SN PPM	W PPM	MO PPM
T 7839	0.130	15	180	15	-0.5	10	606	144	3
T 7841	0.030	10	165	25	-0.5	4	77	147	13
T 7842	0.060	25	1625	15	-0.5	17	225	41	14
T 7843	0.030	20	970	20	-0.5	8	851	55	14
T 7844	0.600	10	2400	50	-0.5	5	308	364	21
T 7845	0.160	10	1800	15	-0.5	5	67	283	3
T 7846	0.070	10	165	15	-0.5	1	43	145	5
T 7847	0.070	10	70	20	-0.5	4	352	179	15
T 7848	0.420	10	80	15	-0.5	6	341	191	20
T 7849	0.010	20	155	25	-0.5	5	102	122	12
T 7850	-0.008	5	20	10	-0.5	4	23	24	-3
T 7851	0.020	5	370	15	-0.5	4	101	151	3
T 7852	0.070	10	775	25	-0.5	1	67	33	-3
T 7853	0.530	10	35	10	-0.5	1	75	87	5
T 7854	0.010	5	75	10	-0.5	1	70	143	3
T 7855	0.320	10	30	10	-0.5	1	396	112	-3
T 7856	0.060	5	30	10	-0.5	-1	144	114	-3
T 7857	0.075	10	215	10	-0.5	-1	160	170	5
T 7858	0.110	10	80	10	-0.5	-1	156	342	3
T 7859	0.070	5	50	10	-0.5	1	130	176	-3
T 7861	0.050	5	30	5	-0.5	1	82	90	-3
T 7862	0.020	5	25	5	-0.5	1	92	140	3
T 7863	0.560	10	40	10	-0.5	1	160	265	10
T 7864	0.520	10	45	15	-0.5	1	397	506	4
T 7865	0.060	5	15	5	-0.5	1	51	128	-3
T 7866	0.030	5	15	5	-0.5	1	40	63	-3
T 7867	0.060	5	25	5	-0.5	1	45	116	3
T 7868	0.050	10	20	10	-0.5	2	58	106	4
T 7869	0.140	15	25	30	-0.5	2	171	97	12
T 7870	1.090	165	60	30	-0.5	52	536	123	47
T 7871	0.120	15	465	20	-0.5	4	171	184	21
T 7872	0.100	15	100	40	-0.5	2	119	125	18
T 7873	0.110	10	45	20	-0.5	3	294	156	9
T 7874	0.050	20	25	55	-0.5	2	103	37	17
T 7875	-0.008	10	-5	10	-0.5	5	43	27	-3

Laboratory:	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB
Instrument:	309	101	101	101	101	114	401	401	401
Det. Limit:	0.008	5.000	5.000	5.000	0.500	1.000	3.000	10.000	3.000

062

850063

GOLDFIELDS EXPLORATION PTY.LTD. DATA SHEET

CODE:5518

SCALE:1000 GRID:DOLCOATH
SAMPLER:R.H.ROBERTS REF.:PACKETTS WORKINGS
SAMT:CHANNEL SAMPLE

SAMPLE IDENT.	AU PPM	CU PPM	PB PPM	ZN PPM	AG PPM	AS PPM	SN PPM	W PPM	MO PPM
T 7876	-0.008	10	-5	10	-0.5	11	50	15	-3
T 7877	0.620	20	30	20	-0.5	8	241	603	7
T 7878	0.020	5	15	5	-0.5	1	31	5	-3

Laboratory:	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB
Instrument:	309	101	101	101	101	114	401	401	401
Det. Limit:	0.008	5.000	5.000	5.000	0.500	1.000	3.000	10.000	3.000

064

850065

Appendix 2.3

Geochemical Assay Results and Descriptions

Grid Rock Samples

GOLD FIELDS EXPLORATION PTY. LIMITED

Abbreviations used in Rock Sample Ledger

Samt = Sample Type

Rocktp = Rock Type

Oremin = Metalliferous and Indicator Minerals

Spare 3 = Fracturing

Alter = Alteration and Weathering

Veins = Veining

GOLDFIELDS EXPLORATION PTY.LTD. DATA SHEET

MAP-PHOTO:CETHANA 2-2

PROJECT:NARRAWA SCALE:5000 SAMPLER:R.H.ROBERTS
GRID:DOLCOATH REF.:ROCK SAMPLES

	SAMPLE IDENT.	NORTH	EAST	FIELD DESCRIPTIONS:	AU PPM	CU PPM	PB PPM	ZN PPM	AG PPM
T	4643	4930	5755	SAMT:ROCK OUTCROP ROCKTP:LAMINATED PELITE					
T	4644	4930	5780	SAMT:ROCK OUTCROP ROCKTP:QUARTZITE ALTER:SILICIFIED OREMIN:LIMONITE REMARKS:PETRO					
T	4645	4950	5690	SAMT:ROCK OUTCROP ROCKTP:QUARTZITE ALTER:SILICIFIED OREMIN:PYRITE SPARE3:SHEETED VEINING REMARKS:.					
T	4646	0	0	SAMT:ROCK OUTCROP ROCKTP:PEBBLY SANDSTONE REMARKS:HIGGS WORKINGS ADIT 1 11M PETRO					
T	4647	0	0	SAMT:ROCK OUTCROP ROCKTP:CALC-SILICATE BEARING GREYWACKE REMARKS:HIGGS WORKING ADIT 1 14M - PETRO					
T	4648	0	0	SAMT:ROCK OUTCROP ROCKTP:PELITE REMARKS:HIGGS WORKINGS ADIT 1 18M - PETRO					
T	4649	4860	5900	SAMT:ROCK OUTCROP ROCKTP:QUARTZITE VEINS:QUARTZ	0.020	10	-5	5	-0.5
T	4650	4955	5898	SAMT:ROCK OUTCROP ROCKTP:QUARTZ LIMONITE ROCK REMARKS:4965	0.150	870	4300	840	6.0
T	4651	4965	5895	SAMT:ROCK OUTCROP ROCKTP:GREYWACKE OREMIN:PYRITE, CHALCOPYRITE VEINS:QUARTZ,LIMONITE	0.150	140	30	70	-0.5
	Laboratory:				ANALAB	ANALAB	ANALAB	ANALAB	ANALA
	Instrument:				309	101	101	101	10
	Det. Limit:				0.008	5.000	5.000	5.000	0.5

066

850067

GOLDFIELDS EXPLORATION PTY.LTD. DATA SHEET

MAP-PHOTO:CETHANA 2-2

PROJECT:NARRAWA SCALE:5000 SAMPLER:R.H.ROBERTS
GRID:DOLCOATH REF.:ROCK SAMPLES

SAMPLE IDENT.	NORTH	EAST	FIELD DESCRIPTIONS:	AU PPM	CU PPM	PB PPM	ZN PPM	AG PPM	AS PPM	BI PPM
T 4652	4968	5893	SAMT:ROCK OUTCROP ROCKTP:CALC-SILICATE BEARING GREYWACKE OREMIN:ARSENOPYRITE,AMPHIBOLE	0.050	75	20	20	-0.5	440	-10
T 4653	4968	5893	SAMT:ROCK OUTCROP ROCKTP:CALC SILICATE OREMIN:MAGNETITE	0.067	275	25	30	-0.5	7700	10
T 4654	5235	5870	SAMT:ROCK OUTCROP ROCKTP:PEBBLY QUARTZITE	0.010	10	-5	10	-0.5	10	10
T 4655	5275	5900	SAMT:ROCK OUTCROP ROCKTP:QUARTZITE	0.010	15	-5	-5	-0.5	74	-10
T 4656	5315	5900	SAMT:ROCK OUTCROP ROCKTP:QUARTZITE VEINS:QUARTZ	0.010	10	35	-5	-0.5	99	-10
T 4657	5210	6000	SAMT:ROCK OUTCROP ROCKTP:QUARTZITE VEINS:QUARTZ	0.010	10	-5	-5	-0.5	6	-10
T 4658	5310	5980	SAMT:ROCK OUTCROP ROCKTP:QUARTZITE	0.020	15	35	5	-0.5	8	-10
T 4659	5405	6000	SAMT:ROCK OUTCROP ROCKTP:TUBICOLAR QUARTZITE OREMIN:IRON STAINING VEINS:QUARTZ	0.010	15	-5	10	-0.5	2	10
T 4661	5475	5990	SAMT:ROCK OUTCROP ROCKTP:TUBICOLAR QUARTZITE VEINS:QUARTZ	0.010	30	40	10	-0.5	41	30
REMARKS:.										
T 4662	5530	6000	SAMT:ROCK OUTCROP ROCKTP:QUARTZITE OREMIN:LIMONITE	-0.010	10	-5	5	-0.5	5	-10

Laboratory:	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB
Instrument:	309	101	101	101	101	114	101
Det. Limit:	0.008	5.000	5.000	5.000	0.500	1.000	10.000

067

85006

GOLDFIELDS EXPLORATION PTY.LTD. DATA SHEET

MAP-PHOTO:CETHANA 2-2

PROJECT:NARRAWA SCALE:5000 SAMPLER:R.H.ROBERTS
GRID:DOLCOATH REF.:ROCK SAMPLES

SAMPLE IDENT.	NORTH	EAST	FIELD DESCRIPTIONS:	AU PPM	CU PPM	PB PPM	ZN PPM	AG PPM	AS PPM	BI PPM
T 4663	5560	6000	SAMT:ROCK FLOAT ROCKTP:GOSSAN OREMIN:LIMONITE	-0.010	330	75	310	-0.5	81	70
T 4664	5565	5985	SAMT:ROCK OUTCROP ROCKTP:GOSSAN OREMIN:LIMONITE	-0.010	705	220	620	-0.5	147	10
T 4665	5570	6050	SAMT:ROCK OUTCROP ROCKTP:SANDSTONE OREMIN:IRON STAINING	-0.010	15	-5	15	-0.5	5	10
T 4666	5575	6000	SAMT:ROCK FLOAT ROCKTP:QUARTZITE SPARE3:MICROFRACTURING	0.010	15	40	10	-0.5	5	-10
T 4667	5535	5890	SAMT:ROCK OUTCROP ROCKTP:TUBICOLAR QUARTZITE VEINS:QUARTZ	0.010	10	20	10	-0.5	4	-10
T 4668	5537	6100	SAMT:ROCK FLOAT ROCKTP:QUARTZITE SPARE3:SHEETED VEINING	-0.010	5	-5	15	-0.5	14	10
T 4669	5475	6100	SAMT:ROCK OUTCROP ROCKTP:QUARTZITE OREMIN:IRON STAINING SPARE3:MICROFRACTURING	0.020	25	-5	10	-0.5	2	10
T 4670	5404	6100	SAMT:ROCK OUTCROP ROCKTP:QUARTZITE	0.030	10	-5	15	-0.5	5	70
T 4671	5255	6100	SAMT:ROCK OUTCROP ROCKTP:QUARTZITE OREMIN:LIMONITE SPARE3:MICROFRACTURING	0.010	10	-5	10	-0.5	2	-10
T 4672	5215	6100	SAMT:ROCK OUTCROP ROCKTP:QUARTZITE ALTER:VUGGY VEINS:QUARTZ,LIMONITE	0.020	140	25	10	-0.5	57	10
Laboratory:				ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB
Instrument:				309	101	101	101	101	114	101
Det. Limit:				0.008	5.000	5.000	5.000	0.500	1.000	10.000

GOLDFIELDS EXPLORATION PTY. LTD. DATA SHEET

MAP-PHOTO:CETHANA 2-2

PROJECT:NARRAWA SCALE:5000 SAMPLER:R. H. ROBERTS
GRID:DOLCOATH REF.:ROCK SAMPLES

SAMPLE IDENT.	NORTH	EAST	FIELD DESCRIPTIONS:	AU PPM	CU PPM	PB PPM	ZN PPM	AG PPM	AS PPM	BI PPM
T 4673	5135	6100	SAMT:ROCK OUTCROP ROCKTP:QUARTZITE OREMIN:LIMONITE SPARE3:MICROFRACTURING VEINS:GREISEN	0.010	35	25	10	-0.5	100	20
T 4674	4905	5905	SAMT:ROCK OUTCROP ROCKTP:SANDSTONE VEINS:QUARTZ,LIMONITE	0.060	50	1350	20	-0.5	21	20
T 4675	4905	5905	SAMT:ROCK OUTCROP ROCKTP:SANDSTONE OREMIN:LIMONITE	0.050	15	30	20	-0.5	10	20
T 4676	4905	5905	SAMT:ROCK OUTCROP ROCKTP:SANDSTONE ALTER:OXIDISED	0.040	65	195	130	-0.5	13	30
T 4677	4840	6000	SAMT:ROCK OUTCROP ROCKTP:SANDSTONE OREMIN:PYRITE	0.010	10	10	-5	-0.5	4	10
T 4678	4795	6000	SAMT:ROCK OUTCROP ROCKTP:SANDSTONE OREMIN:PYRITE	0.010	15	-5	5	-0.5	13	-10
T 4679	4595	6000	SAMT:ROCK OUTCROP ROCKTP:TUBICOLAR SANDSTONE	-0.010	-5	-5	-5	-0.5	-1	-10
T 4681	5050	6140	SAMT:ROCK OUTCROP ROCKTP:QUARTZITE OREMIN:LIMONITE VEINS:QUARTZ/GREISEN	-0.010	-5	-5	-5	-0.5	4	10
T 4682	5050	6200	SAMT:ROCK OUTCROP ROCKTP:QUARTZITE OREMIN:LIMONITE VEINS:GREISEN	0.060	50	-5	55	-0.5	12	190
Laboratory:				ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB
Instrument:				309	101	101	101	101	114	101
Det. Limit:				0.008	5.000	5.000	5.000	0.500	1.000	10.000

GOLDFIELDS EXPLORATION PTY.LTD. DATA SHEET

MAP-PHOTO:CETHANA 2-2

PROJECT:NARRAWA SCALE:5000 SAMPLER:R.H.ROBERTS
GRID:DOLCOATH REF.:ROCK SAMPLES

	SAMPLE IDENT.	NORTH	EAST	FIELD DESCRIPTIONS:	AU PPM	CU PPM	PB PPM	ZN PPM	AG PPM	AS PPM	BI PPM
T	4683	5170	6200	SAMT:ROCK OUTCROP ROCKTP:GREYWACKE OREMIN:LIMONITE SPARE3:MICROFRACTURING	-0.010	10	40	30	-0.5	56	10
T	4684	5220	6200	SAMT:ROCK FLOAT ROCKTP:PELITE/PSAMMOPELITE ALTER:OXIDISED VEINS:QUARTZ-BIOTITE	-0.010	10	-5	35	-0.5	6	10
T	4685	5240	6200	SAMT:ROCK OUTCROP ROCKTP:CALC SILICATE OREMIN:AMPHIBOLE,PYROXENE	-0.010	15	-5	45	-0.5	9	10
T	4686	5245	6200	SAMT:ROCK OUTCROP ROCKTP:PELITE OREMIN:CORDIERITE	-0.010	5	-5	30	-0.5	1	10
T	4687	5260	6200	SAMT:ROCK FLOAT ROCKTP:CALC SILICATE WITH REACTION BANDS REMARKS:NOT ASSAYED							
T	4688	5265	6205	SAMT:ROCK OUTCROP ROCKTP:CALC SILICATE BEARING SANDSTONE REMARKS:0	-0.010	10	10	30	-0.5	3	10
T	4689	5300	6200	SAMT:ROCK FLOAT ROCKTP:GOSSAN OREMIN:MAGNETITE	0.058	90	50	190	-0.5	1600	20
T	4690	5340	6200	SAMT:ROCK OUTCROP ROCKTP:QUARTZITE OREMIN:PYRITE,WOLFRAM VEINS:GREISEN	0.060	25	10	30	-0.5	7	30
T	4691	5360	6200	SAMT:ROCK FLOAT ROCKTP:PEBBLY QUARTZITE OREMIN:PYRITE	0.020	30	5	20	-0.5	22	30

Laboratory:	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB
Instrument:	309	101	101	101	101	114	101
Det. Limit:	0.008	5.000	5.000	5.000	0.500	1.000	10.000

070

850071

GOLDFIELDS EXPLORATION PTY.LTD. DATA SHEET

MAP-PHOTO:CETHANA 2-2

PROJECT:NARRAWA SCALE:5000 SAMPLER:R.H.ROBERTS
GRID:DOLCOATH REF.:ROCK SAMPLES

071

SAMPLE IDENT.	NORTH	EAST	FIELD DESCRIPTIONS:	AU PPM	CU PPM	PB PPM	ZN PPM	AG PPM	AS PPM	BI PPM
T 4692	5380	6200	SAMT:ROCK OUTCROP ROCKTP:QUARTZITE ALTER:LIMONITIC OREMIN:PYRITE	0.010	30	-5	5	-0.5	6	10
T 4693	5415	6200	SAMT:ROCK OUTCROP ROCKTP:QUARTZITE SPARE3:FRACTURED	0.010	10	-5	20	-0.5	1	10
T 4694	5482	6193	SAMT:ROCK OUTCROP ROCKTP:QUARTZITE SPARE3:SHEETED VEINING	0.070	10	-5	10	-0.5	8	70
T 4695	4830	5710	SAMT:ROCK OUTCROP ROCKTP:SANDSTONE ALTER:WEATHERED OREMIN:LIMONITE VEINS:LIMONITE	-0.010	5	-5	-5	-0.5	2	20
T 4696	4827	5717	SAMT:ROCK OUTCROP ROCKTP:SANDSTONE OREMIN:LIMONITE	-0.010	-5	-5	5	-0.5	2	10
T 4697	4820	5715	SAMT:ROCK OUTCROP ROCKTP:SANDSTONE	-0.010	-5	-5	-5	-0.5	-1	20
T 4698	4775	5700	SAMT:ROCK FLOAT ROCKTP:SANDSTONE/GREYWACKE OREMIN:LIMONITE	0.040	35	445	15	-0.5	50	-10
T 4699	4770	5690	SAMT:ROCK FLOAT ROCKTP:GREYWACKE OREMIN:LIMONITE	-0.010	20	135	15	-0.5	41	10
T 4700	5285	6200	SAMT:ROCK OUTCROP ROCKTP:CALC SILICATE OREMIN:MAGNETITE	0.783	50	2350	145	1.0	18500	140
Laboratory:				ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB
Instrument:				309	101	101	101	101	114	101
Det. Limit:				0.008	5.000	5.000	5.000	0.500	1.000	10.000

850072

GOLDFIELDS EXPLORATION PTY.LTD. DATA SHEET

MAP-PHOTO:DETHANA 2-2

PROJECT:NARRAWA SCALE:5000 SAMPLER:R.H.ROBERTS
GRID:DOLCOATH REF.:ROCK SAMPLES

SAMPLE IDENT.	NORTH	EAST	FIELD DESCRIPTIONS:	AU PPM	CU PPM	PB PPM	ZN PPM	AG PPM	AS PPM	BI PPM
T 4787	4828	6200	SAMT:ROCK OUTCROP ROCKTP:TUBICOLAR SANDSTONE ALTER:SILICIFIED OREMIN:PYRITE	0.010	20	10	10	-0.5	19	-10
T 4788	0	0	SAMT:ROCK OUTCROP ROCKTP:SANDSTONE ALTER:DISSEMINATED MINERALISATION OREMIN:GALENA,SPHALERITE REMARKS:HIGGS CK PETROPHYSICS SAMPLE							
T 4789	0	0	SAMT:ROCK OUTCROP ROCKTP:SANDSTONE ALTER:DISSEMINATED MINERALISATION OREMIN:GALENA,SPHALERITE,PYRITE REMARKS:HIGGS CK PETROPHYS SAMPLE							
T 4790	0	0	SAMT:ROCK OUTCROP ROCKTP:QUARTZITE ALTER:SILICIFIED AND VUGGY OREMIN:PYRITE REMARKS:NARRAWA DUMP PETROPHYS SAMPLE							
T 4791	0	0	SAMT:ROCK OUTCROP ROCKTP:QUARTZITE ALTER:DISSEMINATED MINERALISATION OREMIN:BASE METAL SULPHIDES AND PYRITE REMARKS:NARRAWA DUMP PETROPHYS SAMPLE							
T 4792	0	0	SAMT:ROCK OUTCROP ROCKTP:QUARTZ PORPHYRY REMARKS:NARRAWA ADIT NTH WALL 48-50M PETRO SAMPLE							
T 4793	0	0	SAMT:ROCK OUTCROP ROCKTP:PORPHYRY REMARKS:NARRAWA ADIT NTH 50-52.5 PETRO							
Laboratory:				ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB
Instrument:				309	101	101	101	101	114	101
Det. Limit:				0.008	5.000	5.000	5.000	0.500	1.000	10.000

072

850073

GOLDFIELDS EXPLORATION PTY.LTD. DATA SHEET

073

MAP-PHOTO:CETHANA 2-2

PROJECT:NARRAWA SCALE:5000 SAMPLER:R.H.ROBERTS
GRID:DOLCOATH REF.:ROCK SAMPLES

SAMPLE IDENT.	NORTH	EAST	FIELD DESCRIPTIONS:	AU PPM	CU PPM	PB PPM	ZN PPM	AG PPM	AS PPM	SI PPM
T 4794	0	0	SAMT:ROCK OUTCROP ROCKTP:PELITE OREMIN:GARNET							
			REMARKS:NARRAWA ADIT NTH 12M PETRO							
T 4795	0	0	SAMT:ROCK OUTCROP ROCKTP:LAMINATED PELITE							
			REMARKS:HIGGS MINE WEST ADIT PETRO							
T 4796	4975	5335	SAMT:ROCK FLOAT ROCKTP:CALC SILICATE OREMIN:IRON AND MANGANESE	-0.010	15	15	85	-0.5	5	10
T 4797	4975	5340	SAMT:ROCK FLOAT ROCKTP:QUARTZ PORPHYRY							
T 4798	4975	5350	SAMT:ROCK FLOAT ROCKTP:QUARTZ LIMONITE ROCK	0.017	35	70	75	-0.5	73	20
			REMARKS:N.RD.368M							
T 4799	4970	5500	SAMT:ROCK FLOAT ROCKTP:QUARTZ PORPHYRY	0.010	70	25	15	-0.5	8	40
			REMARKS:N.RD.503M							
T 4857	4770	5700	SAMT:ROCK FLOAT ROCKTP:SANDSTONE/GREYWACKE VEINS:QUARTZ,LIMONITE	0.092	20	250	15	-0.5	260	20
T 4858	4695	5700	SAMT:ROCK FLOAT ROCKTP:QUARTZITE OREMIN:PYRITE, ARSENOPYRITE	0.008	30	40	20	-0.5	150	-10
T 4859	4660	5700	SAMT:ROCK OUTCROP ROCKTP:QUARTZITE OREMIN:PYRITE, ARSENOPYRITE	-0.008	30	65	20	-0.5	72	-10
T 4861	4650	5700	SAMT:ROCK OUTCROP ROCKTP:QUARTZITE OREMIN:PYRITE, ARSENOPYRITE	-0.008	20	50	15	-0.5	16	-10

Laboratory:	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB		
Instrument:	309	101	101	101	101	114	101		
Det. Limit:	0.008	5.000	5.000	5.000	0.500	1.000	10.000		

850074

GOLDFIELDS EXPLORATION PTY.LTD. DATA SHEET

MAP-PHOTO:CETHANA 2-2

PROJECT:NARRAWA SCALE:5000 SAMPLER:R.H.ROBERTS
GRID:DOLCOATH REF.:ROCK SAMPLES

SAMPLE IDENT.	NORTH	EAST	FIELD DESCRIPTIONS:	AU PPM	CU PPM	PB PPM	ZN PPM	AG PPM	AS PPM	BI PPM
T 4862	5215	5600	SAMT:ROCK OUTCROP ROCKTP:QUARTZITE VEINS:QUARTZ	-0.008	50	20	-5	-0.5	9	-10
T 4863	5010	5700	SAMT:ROCK FLOAT ROCKTP:QUARTZ LIMONITE ROCK	0.230	95	6400	25	-0.5	160	-10
T 4864	5050	5700	SAMT:ROCK FLOAT ROCKTP:SANDSTONE VEINS:QUARTZ,LIMONITE	0.230	210	55	20	-0.5	900	30
T 4865	5050	5700	SAMT:ROCK FLOAT ROCKTP:QUARTZ OREMIN:LIMONITE	0.390	120	50	20	-0.5	700	40
T 4866	5175	5700	SAMT:ROCK FLOAT REMARKS:EXAMPLES OF PEBBLY SS AND QZ PORPHYRY							
T 4867	4970	5750	SAMT:ROCK FLOAT REMARKS:EXAMPLES OF A:WTHD SS AND B:SS?SILD							
T 4868	4960	5750	SAMT:ROCK OUTCROP ROCKTP:QUARTZITE SPARE3:MICROFRACTURING	-0.008	5	10	-5	-0.5	12	10
T 4869	5050	5800	SAMT:ROCK FLOAT ROCKTP:SANDSTONE OREMIN:LIMONITE SPARE3:MICROFRACTURING	0.250	25	2150	25	4.0	1800	-10
T 4870	5065	5800	SAMT:ROCK FLOAT ROCKTP:QUARTZ OREMIN:MAGNETITE	-0.008	-5	155	55	-0.5	25	10
T 4871	5065	5800	SAMT:ROCK FLOAT ROCKTP:QUARTZ OREMIN:MAGNETITE, HEMATITE	0.020	75	690	85	-0.5	17	30
T 4872	5065	5800	SAMT:ROCK FLOAT ROCKTP:SKARN OREMIN:MAGNETITE	-0.008	20	490	160	-0.5	18	20

Laboratory:	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB
Instrument:	309	101	101	101	101	114	101
Det. Limit:	0.008	5.000	5.000	5.000	0.500	1.000	10.000

074

850075

GOLDFIELDS EXPLORATION PTY.LTD. DATA SHEET

MAP-PHOTO:CETHANA 2-2

PROJECT:NARRAWA SCALE:5000 SAMPLER:R.H.ROBERTS
GRID:DOLCOATH REF.:ROCK SAMPLES

	SAMPLE IDENT.	NORTH	EAST	FIELD DESCRIPTIONS:	AU PPM	CU PPM	PB PPM	ZN PPM	AG PPM	AS PPM	BI PPM
T	4873	5065	5800	SAMT:ROCK FLOAT ROCKTP:CALC SILICATE OREMIN:MAGNETITE	-0.008	40	815	120	-0.5	18	10
T	4874	5000	5850	SAMT:ROCK FLOAT ROCKTP:QUARTZ FELDSPAR PORPHYRY							
T	4875	5012	5850	SAMT:ROCK FLOAT ROCKTP:SANDSTONE OREMIN:LIMONITE VEINS:QUARTZ,LIMONITE	0.030	225	600	30	-0.5	9400	280
T	4876	5045	5850	SAMT:ROCK FLOAT ROCKTP:SANDSTONE VEINS:QUARTZ,LIMONITE	-0.008	95	105	35	-0.5	56	20
T	4877	5183	5850	SAMT:ROCK OUTCROP ROCKTP:QUARTZITE OREMIN:LIMONITE	-0.008	15	10	-5	-0.5	25	-10
T	4878	4900	5950	SAMT:ROCK OUTCROP ROCKTP:SANDSTONE OREMIN:LIMONITE	23.810	260	830	390	3.0	330	120
T	4879	4830	5950	SAMT:ROCK FLOAT ROCKTP:PELITE OREMIN:CORDIERITE							
	REMARKS:PETRO										
T	4881	4827	5950	SAMT:ROCK FLOAT ROCKTP:QUARTZITE OREMIN:PYRITE	0.010	30	15	-5	-0.5	53	-10
	REMARKS:PETRO AND ASSAY										
T	4882	4875	5800	SAMT:ROCK OUTCROP ROCKTP:QUARTZITE SPARE3:MICROFRACTURING	-0.008	-5	10	-5	-0.5	71	20

Laboratory:	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB
Instrument:	309	101	101	101	101	114	101
Det. Limit:	0.008	5.000	5.000	5.000	0.500	1.000	10.000

075

850076

GOLDFIELDS EXPLORATION PTY.LTD. DATA SHEET

076

MAP-PHOTO:CETHANA 2-2

PROJECT:NARRAWA SCALE:5000 SAMPLER:R.H.ROBERTS
GRID:DOLCOATH REF.:ROCK SAMPLES

SAMPLE IDENT.	NORTH	EAST	FIELD DESCRIPTIONS:	AU PPM	CU PPM	PB PPM	ZN PPM	AG PPM	AS PPM	BI PPM
T 4883	4940	5850	SAMT:ROCK FLOAT ROCKTP:PSAMMOPELITE							
			REMARKS:PETRO							
T 4884	4862	5790	SAMT:ROCK OUTCROP ROCKTP:QUARTZITE OREMIN:PYRITE	0.200	15	-5	5	-0.5	19	10
T 4885	4775	5750	SAMT:ROCK OUTCROP ROCKTP:PSAMMOPELITE							
T 4886	4785	5750	SAMT:ROCK OUTCROP ROCKTP:PSAMMOPELITE							
			REMARKS:PETRO							
T 4887	5153	6110	SAMT:ROCK OUTCROP ROCKTP:PELITE OREMIN:CORDIERITE							
			REMARKS:PETRO							
T 4888	5145	6050	SAMT:ROCK FLOAT ROCKTP:CALC-SILICATE BEARING QUARTZITE							
			REMARKS:PETRO							
T 4889	5140	6050	SAMT:ROCK FLOAT ROCKTP:GREYWACKE/PSAMMOPELITE							
			REMARKS:PETRO							
T 4890	5112	6050	SAMT:ROCK FLOAT ROCKTP:QUARTZ FELDSPAR PORPHYRY							
			REMARKS:PETRO							
T 4891	5120	6100	SAMT:ROCK FLOAT ROCKTP:PELITE OREMIN:CORDIERITE							
			REMARKS:PETRO							
T 4892	5165	6140	SAMT:ROCK FLOAT ROCKTP:GREISEN	0.020	20	10	20	-0.5	14	10
Laboratory:				ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB
Instrument:				309	101	101	101	101	114	101
Det. Limit:				0.008	5.000	5.000	5.000	0.500	1.000	10.000

8500 7

GOLDFIELDS EXPLORATION PTY.LTD. .DATA SHEET

077

MAP-PHOTO:CETHANA 2-2

PROJECT:NARRAWA SCALE:5000 SAMPLER:R.H.ROBERTS
GRID:DOLCOATH REF.:ROCK SAMPLES

SAMPLE IDENT.	NORTH	EAST	FIELD DESCRIPTIONS:	AU PPM	CU PPM	PB PPM	ZN PPM	AG PPM	AS PPM	SI PPM
T 4893	5168	6145	SAMT:ROCK FLOAT ROCKTP:QUARTZ LIMONITE ROCK	0.030	325	15	25	-0.5	96	20
T 4894	5350	6260	SAMT:ROCK OUTCROP ROCKTP:CALC-SILICATE BEARING GREYWACKE							
REMARKS:PETRO										
T 4895	5520	6300	SAMT:ROCK OUTCROP ROCKTP:PSAMMOPELITE/QUARTZITE							
T 4896	4735	5600	SAMT:ROCK OUTCROP ROCKTP:QUARTZITE OREMIN:LIMONITE VEINS:GREISEN	-0.008	20	-5	-5	-0.5	22	-10
T 4897	4675	5600	SAMT:ROCK OUTCROP ROCKTP:QUARTZITE SPARE3:MICROFRACTURING	-0.008	20	-5	-5	-0.5	24	20
T 4898	4660	5600	SAMT:ROCK OUTCROP ROCKTP:QUARTZITE OREMIN:PYRITE VEINS:QUARTZ	-0.008	40	-5	5	-0.5	10	20
T 4899	4610	5570	SAMT:ROCK FLOAT ROCKTP:SANDSTONE OREMIN:MAGNETITE	-0.008	5	30	360	-0.5	8	-10
T 6001	4625	5575	SAMT:ROCK OUTCROP ROCKTP:CALC-SILICATE BEARING PSAMMOPELITE OREMIN:MAGNETITE	0.090	10	40	1300	-0.5	14	40
T 6002	4630	5575	SAMT:ROCK OUTCROP ROCKTP:PSAMMOPELITE OREMIN:CORDIERITE							
REMARKS:PETRO										
T 6003	4435	5400	SAMT:ROCK FLOAT ROCKTP:SANDSTONE OREMIN:LIMONITE SPARE3:FRACTURED	-0.008	70	80	65	-0.5	41	20

Laboratory:	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB
Instrument:	309	101	101	101	101	114	101
Det. Limit:	0.008	5.000	5.000	5.000	0.500	1.000	10.000

850078

GOLDFIELDS EXPLORATION PTY.LTD. DATA SHEET

078

MAP-PHOTO:CETHANA 2-2

PROJECT:NARRAWA SCALE:5000 SAMPLER:R.H.ROBERTS
GRID:DOLCOATH REF.:ROCK SAMPLES

	SAMPLE IDENT.	NORTH	EAST	FIELD DESCRIPTIONS:	AU PPM	CU PPM	PB PPM	ZN PPM	AG PPM	AS PPM	BI PPM
T	6004	4870	5400	SAMT:ROCK FLOAT ROCKTP:QUARTZITE OREMIN:LIMONITE SPARE3:FRACTURED	0.100	115	3100	5	2.0	2200	-10
T	6005	4765	6150	SAMT:ROCK OUTCROP ROCKTP:QUARTZITE SPARE3:SHEARED	-0.008	5	-5	15	-0.5	1	20
T	6006	4760	6150	SAMT:ROCK OUTCROP ROCKTP:CLAY SPARE3:FRACTURED	-0.008	-5	25	15	-0.5	2	10
T	6007	4725	6140	SAMT:ROCK OUTCROP ROCKTP:QUARTZITE SPARE3:SHEARED	-0.008	-5	-5	5	-0.5	-1	-10
T	6008	4680	6140	SAMT:ROCK OUTCROP ROCKTP:QUARTZITE ALTER:VUGGY SPARE3:LAYERING/FOLIATION	-0.008	-5	-5	10	-0.5	1	-10
	REMARKS:PETRO - ? LAYERING AND ASSAY										
T	6009	4430	5900	SAMT:ROCK OUTCROP ROCKTP:GREYWACKE/PSAMMOPELITE OREMIN:WOLFRAM	-0.008	-5	-5	35	-0.5	-1	-10
T	6010	4550	6100	SAMT:ROCK OUTCROP ROCKTP:PSAMMOPELITE/QUARTZITE SPARE3:LAYERING	-0.008	-5	-5	5	-0.5	1	10
	REMARKS:PETRO - ?										
T	6011	4935	6200	SAMT:ROCK OUTCROP ROCKTP:SANDSTONE	-0.008	-5	-5	10	-0.5	3	-10
T	6012	4800	6300	SAMT:ROCK FLOAT ROCKTP:SANDSTONE OREMIN:LIMONITE	-0.008	30	-5	10	-0.5	6	-10
Laboratory:					ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB
Instrument:					309	101	101	101	101	114	101
Det. Limit:					0.008	5.000	5.000	5.000	0.500	1.000	10.000

850079

GOLDFIELDS EXPLORATION PTY.LTD. DATA SHEET

MAP-PHOTO:CETHANA 2-2

PROJECT:NARRAWA SCALE:5000 SAMPLER:R.H.ROBERTS
GRID:DOLCOATH REF.:ROCK SAMPLES

079

SAMPLE IDENT.	NORTH	EAST	FIELD DESCRIPTIONS:	AU PPM	CU PPM	PB PPM	ZN PPM	AG PPM	AS PPM	BI PPM
T 6013	4635	6300	SAMT:ROCK OUTCROP ROCKTP:SANDSTONE SPARE3:FRACTURED	-0.008	-5	5	20	-0.5	32	-10
T 6014	4600	6300	SAMT:ROCK OUTCROP ROCKTP:SANDSTONE/PSAMMOPELITE SPARE3:LAYERING/FOLIATION	-0.008	5	180	15	-0.5	110	-10
			REMARKS:PETRO AND ASSAY							
T 6015	5125	6375	SAMT:ROCK OUTCROP ROCKTP:SANDSTONE SPARE3:LAYERING/FOLIATION	-0.008	-5	10	10	-0.5	5	10
T 6016	4800	6400	SAMT:ROCK FLOAT ROCKTP:PSAMMOPELITE OREMIN:GARNET VEINS:QUARTZ	-0.008	75	5	65	-0.5	16	-10
T 6017	4718	6400	SAMT:ROCK OUTCROP ROCKTP:SANDSTONE OREMIN:IRON STAINING SPARE3:FRACTURED VEINS:QUARTZ,LIMONITE	-0.008	75	5	30	-0.5	71	70
T 6018	4700	6400	SAMT:ROCK OUTCROP ROCKTP:PSAMMOPELITE/SANDSTONE	0.010	10	5	10	-0.5	5	-10
T 6019	5025	5000	SAMT:ROCK FLOAT ROCKTP:SANDSTONE OREMIN:LIMONITE	-0.008	115	-5	90	-0.5	9	-10
T 6021	5130	5000	SAMT:ROCK FLOAT ROCKTP:QUARTZITE OREMIN:IRON/LIMONITE VEINS:QUARTZ	-0.008	15	-5	10	-0.5	14	10
T 6022	5180	5000	SAMT:ROCK FLOAT ROCKTP:PEBBLY QUARTZITE OREMIN:IRON STAINING	-0.008	25	-5	10	-0.5	10	-10
Laboratory:				ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB
Instrument:				309	101	101	101	101	114	101
Det. Limit:				0.008	5.000	5.000	5.000	0.500	1.000	10.000

850080

GOLDFIELDS EXPLORATION PTY.LTD. DATA SHEET

MAP-PHOTO:CETHANA 2-2

PROJECT:NARRAWA SCALE:5000 SAMPLER:R.H.ROBERTS
GRID:DOLCOATH REF.:ROCK SAMPLES

080

SAMPLE IDENT.	NORTH	EAST	FIELD DESCRIPTIONS:	AU PPM	CU PPM	PB PPM	ZN PPM	AG PPM	AS PPM	BI PPM
T 6023	4940	5750	SAMT:ROCK OUTCROP ROCKTP:PORPHYRY ALTER:OXIDISED OREMIN:LIMONITE	0.110	255	-5	15	-0.5	42	200
T 6024	0	0	SAMT:ROCK OUTCROP ROCKTP:PEBBLY QUARTZITE OREMIN:PYRITE	-0.008	20	-5	5	0.5	23	-10
	REMARKS:CETHANA RD									
T 6025	4685	5500	SAMT:ROCK FLOAT ROCKTP:QUARTZITE OREMIN:IRON STAINING	-0.008	5	-5	5	-0.5	10	-10
T 6026	4675	5800	SAMT:ROCK FLOAT ROCKTP:QUARTZITE VEINS:QUARTZ	-0.008	-5	-5	5	-0.5	4	-10
T 6027	4663	5800	SAMT:ROCK OUTCROP ROCKTP:QUARTZITE OREMIN:IRON STAINING SPARE3:FRACTURED	-0.008	30	5	35	-0.5	17	20
T 6028	4662	5800	SAMT:ROCK OUTCROP ROCKTP:QUARTZITE OREMIN:LIMONITE VEINS:QUARTZ,LIMONITE	-0.008	45	10	25	-0.5	24	80
T 6029	4643	5800	SAMT:ROCK OUTCROP ROCKTP:QUARTZITE SPARE3:LAYERING/FOLIATION	-0.008	25	-5	10	-0.5	25	-10
T 6030	4643	5800	SAMT:ROCK OUTCROP ROCKTP:QUARTZITE OREMIN:LIMONITE	-0.008	-5	-5	5	-0.5	15	-10
T 6031	4625	5800	SAMT:ROCK OUTCROP ROCKTP:PSAMMOPELITE ALTER:SERICITIC OREMIN:LIMONITE	-0.008	25	5	15	-0.5	11	10
Laboratory:				ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB
Instrument:				309	101	101	101	101	114	101
Det. Limit:				0.008	5.000	5.000	5.000	0.500	1.000	10.000

850081

GOLDFIELDS EXPLORATION PTY.LTD. DATA SHEET

MAP-PHOTO:CETHANA 2-2

PROJECT:NARRAWA SCALE:5000 SAMPLER:R.H.ROBERTS
GRID:DOLCOATH REF.:ROCK SAMPLES

SAMPLE IDENT.	NORTH	EAST	FIELD DESCRIPTIONS:	AU PPM	CU PPM	PB PPM	ZN PPM	AG PPM	AS PPM	BI PPM
T 6032	4625	5800	SAMT:ROCK OUTCROP ROCKTP:QUARTZITE	-0.008	5	-5	15	-0.5	5	-10
T 6033	4250	5600	SAMT:ROCK FLOAT ROCKTP:QUARTZ	-0.008	-5	10	15	-0.5	5	-10
T 6034	4875	5300	SAMT:ROCK FLOAT ROCKTP:QUARTZITE OREMIN:PYRITE VEINS:QUARTZ	-0.008	55	-5	10	-0.5	64	10
T 6035	4825	5300	SAMT:ROCK FLOAT ROCKTP:QUARTZITE OREMIN:LIMONITE	-0.008	5	-5	10	-0.5	24	-10
T 6036	4795	5300	SAMT:ROCK FLOAT ROCKTP:QUARTZ ALTER:VUGGY OREMIN:LIMONITE	-0.008	-5	10	10	-0.5	10	-10
T 6037	4625	5300	SAMT:ROCK FLOAT ROCKTP:QUARTZITE OREMIN:IRON/LIMONITE/HEMATITE	-0.008	100	5	10	-0.5	93	20
T 6038	4610	5000	SAMT:ROCK FLOAT ROCKTP:QUARTZITE OREMIN:IRON STAINING	-0.008	10	40	10	-0.5	37	-10
T 6039	5075	5100	SAMT:ROCK FLOAT ROCKTP:CALC SILICATE ALTER:WEATHERED	-0.008	60	40	35	-0.5	15	-10
T 6041	5115	5100	SAMT:ROCK OUTCROP ROCKTP:QUARTZITE	-0.008	25	10	25	-0.5	10	-10
T 6042	5250	5100	SAMT:ROCK FLOAT ROCKTP:QUARTZITE ALTER:VUGGY VEINS:QUARTZ,LIMONITE	-0.008	5	-5	10	-0.5	4	-10
Laboratory:				ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB
Instrument:				309	101	101	101	101	114	101
Det. Limit:				0.008	5.000	5.000	5.000	0.500	1.000	10.000

GOLDFIELDS EXPLORATION PTY.LTD. DATA SHEET

MAP-PHOTO:CETHANA 2-2

PROJECT:NARRAWA SCALE:5000 SAMPLER:R.H.ROBERTS
GRID:DOLCOATH REF.:ROCK SAMPLES

SAMPLE IDENT.	NORTH	EAST	FIELD DESCRIPTIONS:	AU PPM	CU PPM	PB PPM	ZN PPM	AG PPM	AS PPM	BI PPM
T 6043	5420	5100	SAMT:ROCK OUTCROP ROCKTP:PEBBLY QUARTZITE VEINS:BIOTITE	-0.008	5	30	20	-0.5	5	-10
T 6044	5400	5200	SAMT:ROCK FLOAT ROCKTP:QUARTZITE SPARE3:LAYERING/FOLIATION	-0.008	5	-5	5	0.5	4	-10
T 6045	5325	5300	SAMT:ROCK FLOAT ROCKTP:QUARTZITE SPARE3:LAYERING/FOLIATION	-0.008	35	-5	10	-0.5	11	-10
T 6046	5225	5400	SAMT:ROCK FLOAT ROCKTP:QUARTZITE OREMIN:IRON/LIMONITE	-0.008	55	20	15	-0.5	8	-10
T 6047	5028	5400	SAMT:ROCK FLOAT ROCKTP:CALC-SILICATE BEARING GREYWACKE OREMIN:PYRITE, CHALCOPYRITE	-0.008	370	70	120	1.0	18	-10
T 6048	5027	5400	SAMT:ROCK FLOAT ROCKTP:QUARTZITE ALTER:VUGGY VEINS:QUARTZ,LIMONITE	-0.008	70	415	15	0.5	71	-10
T 6049	4990	5300	SAMT:ROCK FLOAT ROCKTP:QUARTZITE OREMIN:LIMONITE	-0.008	55	70	10	-0.5	36	-10
T 6050	5025	5300	SAMT:ROCK FLOAT ROCKTP:CALC SILICATE OREMIN:GARNET,PYROXENE	-0.008	10	40	60	-0.5	10	-10
T 6051	5065	5300	SAMT:ROCK FLOAT ROCKTP:QUARTZITE OREMIN:LIMONITE VEINS:QUARTZ,LIMONITE	-0.008	10	20	10	-0.5	6	-10

Laboratory:	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB
Instrument:	309	101	101	101	101	114	101
Det. Limit:	0.008	5.000	5.000	5.000	0.500	1.000	10.000

GOLDFIELDS EXPLORATION PTY.LTD. DATA SHEET

MAP-PHOTO:CETHANA 2-2

PROJECT:NARRAWA SCALE:5000 SAMPLER:R.H.ROBERTS
GRID:DOLCOATH REF.:ROCK SAMPLES

SAMPLE IDENT.	NORTH	EAST	FIELD DESCRIPTIONS:	AU PPM	CU PPM	PB PPM	ZN PPM	AG PPM	AS PPM	BI PPM
T 6052	5525	5800	SAMT:ROCK OUTCROP ROCKTP:QUARTZITE OREMIN:IRON STAINING	-0.008	5	235	10	-0.5	8	-10
T 6053	4860	5200	SAMT:ROCK FLOAT ROCKTP:QUARTZITE ALTER:VUGGY	-0.008	-5	-5	5	-0.5	2	-10
T 6054	0	0	SAMT:ROCK FLOAT ROCKTP:QUARTZITE ALTER:OXIDISED VEINS:QUARTZ,LIMONITE							
			REMARKS:NARRAWA RD							
T 6055	0	0	SAMT:DUMP SAMPLE ROCKTP:QUARTZITE OREMIN:GALENA VEINS:QUARTZ,LIMONITE							
			REMARKS:HIGGS MINE DUMP							
T 6056	0	0	SAMT:ROCK OUTCROP ROCKTP:QUARTZITE OREMIN:GALENA,SPHALERITE,PYRITE VEINS:QUARTZ							
			REMARKS:HIGGS MINE EAST WALL							
T 6057	0	0	SAMT:ROCK OUTCROP ROCKTP:QUARTZITE ALTER:OXIDISED							
			REMARKS:HIGGS MINE PILLAR							
T 6058	0	0	SAMT:ROCK OUTCROP ROCKTP:QUARTZITE ALTER:SILICIFIED OREMIN:LIMONITE SPARE3:FRACTURED							
			REMARKS:WEST HIGGS 14.5-15.8M							
Laboratory:				ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB
Instrument:				309	101	101	101	101	114	101
Det. Limit:				0.008	5.000	5.000	5.000	0.500	1.000	10.000

083

850084

GOLDFIELDS EXPLORATION PTY.LTD. DATA SHEET

MAP-PHOTO:CETHANA 2-2

PROJECT:NARRAWA SCALE:5000 SAMPLER:R.H.ROBERTS
GRID:DOLCOATH REF.:ROCK SAMPLES

084

SAMPLE IDENT.	NORTH	EAST	FIELD DESCRIPTIONS:	AU PPM	CU PPM	PB PPM	ZN PPM	AG PPM	AS PPM	BI PPM
T 6059	0	0	SAMT:ROCK OUTCROP ROCKTP:QUARTZITE VEINS:QUARTZ,LIMONITE							
			REMARKS:WEST HIGGS 39-41M							
T 6060	5225	6400	SAMT:ROCK FLOAT ROCKTP:PELITE VEINS:QUARTZ/GREISEN	-0.008	10	25	70	-0.5	3	-10
T 6061	5278	6400	SAMT:ROCK FLOAT ROCKTP:PORPHYRY OREMIN:WOLFRAM VEINS:QUARTZ/GREISEN	1.000	25	50	20	0.5	19	4500
T 6062	5330	6400	SAMT:ROCK FLOAT ROCKTP:CALC SILICATE OREMIN:MAGNETITE	0.130	20	35	80	-0.5	23	70
T 6063	5340	6400	SAMT:ROCK FLOAT ROCKTP:LAMINATED PELITE OREMIN:WOLFRAM VEINS:GREISEN	-0.008	10	-5	40	-0.5	11	40
T 6064	5273	6300	SAMT:ROCK OUTCROP ROCKTP:PSAMMOPELITE/QUARTZITE ALTER:VUGGY VEINS:QUARTZ/GREISEN	0.360	65	-5	20	-0.5	3	10
T 6065	5500	6485	SAMT:ROCK OUTCROP ROCKTP:SKARN OREMIN:PYRITE, CHALCOPYRITE	-0.008	1650	-5	70	7.0	3	30
			REMARKS:SULPHIDES UP TO 50%							
T 6066	5500	6485	SAMT:ROCK OUTCROP ROCKTP:QUARTZ OREMIN:PYRITE	-0.008	405	-5	35	1.0	3	-10
			REMARKS:PY:5-10%							
Laboratory:				ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB
Instrument:				309	101	101	101	101	114	101
Det. Limit:				0.008	5.000	5.000	5.000	0.500	1.000	10.000

850085

GOLDFIELDS EXPLORATION PTY.LTD. DATA SHEET

085

MAP-PHOTO:CETHANA 2-2

PROJECT:NARRAWA SCALE:5000 SAMPLER:R.H.ROBERTS
GRID:DOLCOATH REF.:ROCK SAMPLES

SAMPLE IDENT.	NORTH	EAST	FIELD DESCRIPTIONS:	AU PPM	CU PPM	PB PPM	ZN PPM	AG PPM	AS PPM	SI PPM
T 6067	5500	6485	SAMT:ROCK OUTCROP ROCKTP:QUARTZ OREMIN:PYRITE REMARKS:PY:UP TO 50%	-0.008	1000	-5	35	4.0	3	-10
T 6068	5500	6485	SAMT:ROCK OUTCROP ROCKTP:QUARTZITE ALTER:OXIDISED AND VUGGY OREMIN:LIMONITE	0.010	170	-5	40	0.5	10	-10
T 6069	5500	6485	SAMT:ROCK OUTCROP ROCKTP:QUARTZITE ALTER:OXIDISED AND VUGGY OREMIN:LIMONITE	0.030	145	15	35	0.5	16	-10
T 6070	5500	6485	SAMT:ROCK OUTCROP ROCKTP:PELITE/PSAMMOPELITE	-0.008	20	15	115	-0.5	1	-10
T 6071	5500	6480	SAMT:ROCK OUTCROP ROCKTP:QUARTZ OREMIN:PYRITE REMARKS:PY:UP TO 50%	-0.008	550	5	215	1.0	2	-10
T 6072	5475	6525	SAMT:DUMP SAMPLE ROCKTP:QUARTZ OREMIN:WOLFRAM,MOLYBDENITE REMARKS:POVEX'S DUMP	-0.008	10	-5	10	-0.5	24	-10
T 6073	5380	6500	SAMT:ROCK FLOAT ROCKTP:CALC SILICATE OREMIN:MAGNETITE	0.410	85	20	125	-0.5	4	-10
T 6074	5380	6500	SAMT:ROCK FLOAT ROCKTP:GREISEN	-0.008	20	-5	20	0.5	8	-10
T 6075	5452	6600	SAMT:ROCK FLOAT ROCKTP:PELITE OREMIN:GARNET	-0.008	20	60	350	0.5	48	-10

850086

Laboratory:	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB
Instrument:	309	101	101	101	101	114	101
Det. Limit:	0.008	5.000	5.000	5.000	0.500	1.000	10.000

GOLDFIELDS EXPLORATION PTY. LTD. DATA SHEET

MAP-PHOTO:CETHANA 2-2

PROJECT:NARRAWA SCALE:5000 SAMPLER:R. H. ROBERTS
GRID:DOLCOATH REF.:ROCK SAMPLES

086

SAMPLE IDENT.	NORTH	EAST	FIELD DESCRIPTIONS:	AU PPM	CU PPM	PB PPM	ZN PPM	AG PPM	AS PPM	SI PPM
T 6076	5465	6600	SAMT:ROCK FLOAT ROCKTP:CALC SILICATE OREMIN:MAGNETITE	0.010	295	35	680	0.5	13	-10
T 6077	5475	6600	SAMT:ROCK FLOAT ROCKTP:CALC SILICATE OREMIN:MAGNETITE	0.030	250	40	850	0.5	840	-10
T 6078	5515	6600	SAMT:ROCK OUTCROP ROCKTP:QUARTZITE OREMIN:LIMONITE	-0.008	110	-5	30	-0.5	17	-10
T 6079	5550	6600	SAMT:ROCK FLOAT ROCKTP:PELITE OREMIN:BIOTITE	-0.008	50	80	30	-0.5	44	-10
T 6081	5600	6600	SAMT:ROCK FLOAT ROCKTP:QUARTZITE OREMIN:IRON STAINING	-0.008	45	-5	25	-0.5	16	-10
T 6082	5325	6550	SAMT:ROCK OUTCROP ROCKTP:CALC SILICATE OREMIN:MAGNETITE	0.230	455	-5	90	-0.5	9	-10
T 6083	5385	6585	SAMT:ROCK FLOAT ROCKTP:CALC SILICATE ALTER:WEATHERED OREMIN:AMPHIBOLE	-0.008	85	40	245	0.5	17	-10
T 6084	5425	6615	SAMT:ROCK OUTCROP ROCKTP:SKARN OREMIN:AMPHIBOLE, MAGNETITE	-0.008	70	45	360	0.5	15	-10
T 6085	5330	6725	SAMT:ROCK OUTCROP ROCKTP:QUARTZ OREMIN:LIMONITE	0.290	60	-5	15	-0.5	26	80
T 6086	5100	6700	SAMT:ROCK OUTCROP ROCKTP:GREISEN	-0.008	30	20	30	0.5	30	20

850087

Laboratory:	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB
Instrument:	309	101	101	101	101	114	101
Det. Limit:	0.008	5.000	5.000	5.000	0.500	1.000	10.000

GOLDFIELDS EXPLORATION PTY. LTD. DATA SHEET

MAP-PHOTO:CETHANA 2-2

PROJECT:NARRAWA SCALE:5000 SAMPLER:R. H. ROBERTS
GRID:DOLCOATH REF.:ROCK SAMPLES

	SAMPLE IDENT.	NORTH	EAST	FIELD DESCRIPTIONS:	AU PPM	CU PPM	PB PPM	ZN PPM	AG PPM	AS PPM	BI PPM
T	6087	5035	6700	SAMT:ROCK OUTCROP ROCKTP:GREISEN	-0.008	10	20	35	0.5	4	-10
T	6088	5200	6600	SAMT:DUMP SAMPLE ROCKTP:GREISEN ALTER:SILICIFIED OREMIN:PYRITE REMARKS:BLACK'S LODE	0.970	235	80	10	3.0	86	2500
T	6089	5180	6500	SAMT:ROCK FLOAT ROCKTP:QUARTZITE ALTER:VUGGY VEINS:QUARTZ,LIMONITE	-0.008	525	40	75	-0.5	39	30
T	6090	5180	6500	SAMT:ROCK FLOAT ROCKTP:QUARTZITE OREMIN:HEMATITE	-0.008	45	30	55	-0.5	11	20
T	6091	5180	6500	SAMT:ROCK FLOAT ROCKTP:QUARTZ PORPHYRY ALTER:VUGGY OREMIN:LIMONITE	-0.008	25	25	30	-0.5	80	10
T	6092	5150	6500	SAMT:ROCK FLOAT ROCKTP:QUARTZITE/PSAMMOPELITE OREMIN:LIMONITE	-0.008	35	20	30	-0.5	10	20
T	6093	5120	6500	SAMT:ROCK FLOAT ROCKTP:GREISEN OREMIN:WOLFRAM VEINS:QUARTZ	0.330	25	30	15	0.5	13	40
T	6094	5025	6500	SAMT:ROCK OUTCROP ROCKTP:GREISEN OREMIN:WOLFRAM	-0.008	90	25	10	0.5	64	250
T	6095	5500	6880	SAMT:ROCK OUTCROP ROCKTP:GREISEN OREMIN:WOLFRAM,HEMATITE REMARKS:SAYER'S WORKINGS	-0.008	170	20	5	-0.5	47	1300
	Laboratory:				ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB
	Instrument:				309	101	101	101	101	114	101
	Det. Limit:				0.008	5.000	5.000	5.000	0.500	1.000	10.000

087

850088

GOLDFIELDS EXPLORATION PTY. LTD. DATA SHEET

MAP-PHOTO:CETHANA 2-2

PROJECT:NARRAWA SCALE:5000 SAMPLER:R.H.ROBERTS
GRID:DALCOATH REF.:ROCK SAMPLES

SAMPLE IDENT.	NORTH	EAST	FIELD DESCRIPTIONS:	AU PPM	CU PPM	PB PPM	ZN PPM	AG PPM	AS PPM	BI PPM
T 6096	4250	6400	SAMT:ROCK FLOAT ROCKTP:QUARTZ PORPHYRY	-0.008	20	25	60	0.5	9	-10
T 6097	4256	6520	SAMT:DUMP SAMPLE ROCKTP:GREISEN	0.070	65	120	25	4.0	260	420
	REMARKS:DALCOATH MINE									
T 6098	4250	6520	SAMT:DUMP SAMPLE ROCKTP:GREISEN OREMIN:IRON STAINING	0.050	50	435	10	13.0	840	350
	REMARKS:DALCOATH MINE DUMP									
T 6099	4300	6510	SAMT:DUMP SAMPLE ROCKTP:QUARTZ OREMIN:MOLYBDENITE	0.200	15	205	5	2.5	68	1400
	REMARKS:DALCOATH MINE									
T 6100	4300	6500	SAMT:ROCK OUTCROP ROCKTP:PORPHYRY	0.010	10	30	5	-0.5	13	-10
T 9417	4400	6500	SAMT:ROCK FLOAT ROCKTP:QUARTZ PORPHYRY	-0.008	-5	50	10	-0.5	3	10
T 9418	4850	6500	SAMT:ROCK OUTCROP ROCKTP:QUARTZITE	-0.008	15	10	20	-0.5	6	-10
T 9419	4950	6500	SAMT:ROCK OUTCROP ROCKTP:QUARTZITE	-0.008	-5	5	10	-0.5	3	-10

Laboratory:	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB	ANALAB
Instrument:	309	101	101	101	101	114	101
Det. Limit:	0.008	5.000	5.000	5.000	0.500	1.000	10.000

080

680089

GOLDFIELDS EXPLORATION PTY.LTD. DATA SHEET

PROJECT:NARRAWA

MAP-PHOTO:CETHANA 2-SCALE:5000 GRID:DOLCOATH
SAMPLER:R.H.ROBERTS REF.:ROCK SAMPLES

	SAMPLE IDENT.	NORTH	EAST	FIELD DESCRIPTIONS:	SN PPM	W PPM	MO PPM
T	6038	4610	5000	SAMT:ROCK FLOAT ROCKTP:QUARTZITE OREMIN:IRON STAINING	5	-10	-10
T	6039	5075	5100	SAMT:ROCK FLOAT ROCKTP:CALC SILICATE ALTER:WEATHERED	26	10	-10
T	6041	5115	5100	SAMT:ROCK OUTCROP ROCKTP:QUARTZITE	4	-10	-10
T	6042	5250	5100	SAMT:ROCK FLOAT ROCKTP:QUARTZITE ALTER:VUGGY VEINS:QUARTZ,LIMONITE	30	26	-10
T	6043	5420	5100	SAMT:ROCK OUTCROP ROCKTP:PEBBLY QUARTZITE VEINS:BIOTITE	-3	10	-10
T	6044	5400	5200	SAMT:ROCK FLOAT ROCKTP:QUARTZITE SPARE3:LAYERING/FOLIATION	7	-10	-10
T	6045	5325	5300	SAMT:ROCK FLOAT ROCKTP:QUARTZITE SPARE3:LAYERING/FOLIATION	22	11	-10
T	6046	5225	5400	SAMT:ROCK FLOAT ROCKTP:QUARTZITE OREMIN:IRON/LIMONITE	46	11	10
T	6047	5028	5400	SAMT:ROCK FLOAT ROCKTP:CALC-SILICATE BEARING GREYWACKE OREMIN:PYRITE, CHALCOPYRITE	86	-10	-10
T	6048	5027	5400	SAMT:ROCK FLOAT ROCKTP:QUARTZITE ALTER:VUGGY VEINS:QUARTZ,LIMONITE	13	-10	10
	Laboratory:				ANALAB	ANALAB	ANALAB
	Instrument:				401	401	101
	Det. Limit:				3.000	10.000	10.000

089

060058

2

090

GOLDFIELDS EXPLORATION PTY.LTD. DATA SHEET

PROJECT:NARRAWA

MAP-PHOTO:CETHANA 2-SCALE:5000 GRID:DOLCOATH
SAMPLER:R.H.ROBERTS REF.:ROCK SAMPLES

	SAMPLE IDENT.	NORTH	EAST	FIELD DESCRIPTIONS:	SN PPM	W PPM	MO PPM
T	6049	4990	5300	SAMT:ROCK FLOAT ROCKTP:QUARTZITE OREMIN:LIMONITE	8	-10	-10
T	6050	5025	5300	SAMT:ROCK FLOAT ROCKTP:CALC SILICATE OREMIN:GARNET,PYROXENE	256	-10	-10
T	6051	5065	5300	SAMT:ROCK FLOAT ROCKTP:QUARTZITE OREMIN:LIMONITE VEINS:QUARTZ,LIMONITE	17	-10	-10
T	6052	5525	5800	SAMT:ROCK OUTCROP ROCKTP:QUARTZITE OREMIN:IRON STAINING	6	-10	-10
T	6053	4860	5200	SAMT:ROCK FLOAT ROCKTP:QUARTZITE ALTER:VUGGY	9	-10	-10
T	6060	5225	6400	SAMT:ROCK FLOAT ROCKTP:PELITE VEINS:QUARTZ/GREISEN	30	-10	-10
T	6061	5278	6400	SAMT:ROCK FLOAT ROCKTP:PORPHYRY OREMIN:WOLFRAM VEINS:QUARTZ/GREISEN	29	4660	90
T	6062	5330	6400	SAMT:ROCK FLOAT ROCKTP:CALC SILICATE OREMIN:MAGNETITE	367	268	70
T	6063	5340	6400	SAMT:ROCK FLOAT ROCKTP:LAMINATED PELITE OREMIN:WOLFRAM VEINS:GREISEN	15	4040	170

Laboratory:	ANALAB	ANALAB	ANALAB
Instrument:	401	401	101
Det. Limit:	3.000	10.000	10.000

850091

3

091

GOLDFIELDS EXPLORATION PTY.LTD. DATA SHEET

PROJECT:NARRAWA

MAP-PHOTO:CETHANA 2-SCALE:5000 GRID:DOLCOATH
SAMPLER:R.H.ROBERTS REF.:ROCK SAMPLES

SAMPLE IDENT.	NORTH	EAST	FIELD DESCRIPTIONS:	SN PPM	W PPM	MO PPM
T 6064	5273	6300	SAMT:ROCK OUTCROP ROCKTP:PSAMMOPELITE/QUARTZITE ALTER:VUGGY VEINS:QUARTZ/GREISEN	10	1290	10
T 6065	5500	6485	SAMT:ROCK OUTCROP ROCKTP:SKARN OREMIN:PYRITE, CHALCOPYRITE REMARKS:SULPHIDES UP TO 50%	69	57	-10
T 6066	5500	6485	SAMT:ROCK OUTCROP ROCKTP:QUARTZ OREMIN:PYRITE REMARKS:PY:5-10%	20	13	-10
T 6067	5500	6485	SAMT:ROCK OUTCROP ROCKTP:QUARTZ OREMIN:PYRITE REMARKS:PY:UP TO 50%	24	15	-10
T 6068	5500	6485	SAMT:ROCK OUTCROP ROCKTP:QUARTZITE ALTER:OXIDISED AND VUGGY OREMIN:LIMONITE	86	15	10
T 6069	5500	6485	SAMT:ROCK OUTCROP ROCKTP:QUARTZITE ALTER:OXIDISED AND VUGGY OREMIN:LIMONITE	41	60	10
T 6070	5500	6485	SAMT:ROCK OUTCROP ROCKTP:PELITE/PSAMMOPELITE	79	74	30
T 6071	5500	6480	SAMT:ROCK OUTCROP ROCKTP:QUARTZ OREMIN:PYRITE REMARKS:PY:UP TO 50%	67	20	20
Laboratory:				ANALAB	ANALAB	ANALAB
Instrument:				401	401	101
Det. Limit:				3.000	10.000	10.000

850092

4

GOLDFIELDS EXPLORATION PTY. LTD. DATA SHEET

092

PROJECT:NARRAWA

MAP-PHOTO:CETHANA 2-SCALE:5000 GRID:DOLCOATH
SAMPLER:R. H. ROBERTS REF.:ROCK SAMPLES

	SAMPLE IDENT.	NORTH	EAST	FIELD DESCRIPTIONS:	SN PPM	W PPM	MO PPM
T	6072	5475	6525	SAMT:DUMP SAMPLE ROCKTP:QUARTZ OREMIN:WOLFRAM, MOLYBDENITE	-3	48300	-10
	REMARKS:POVEX'S DUMP						
T	6073	5380	6500	SAMT:ROCK FLOAT ROCKTP:CALC SILICATE OREMIN:MAGNETITE	980	609	20
T	6074	5380	6500	SAMT:ROCK FLOAT ROCKTP:GREISEN	95	755	100
T	6075	5452	6600	SAMT:ROCK FLOAT ROCKTP:PELITE OREMIN:GARNET	105	42	20
T	6076	5465	6600	SAMT:ROCK FLOAT ROCKTP:CALC SILICATE OREMIN:MAGNETITE	501	20	-10
T	6077	5475	6600	SAMT:ROCK FLOAT ROCKTP:CALC SILICATE OREMIN:MAGNETITE	1540	59	10
T	6078	5515	6600	SAMT:ROCK OUTCROP ROCKTP:QUARTZITE OREMIN:LIMONITE	68	15	10
T	6079	5550	6600	SAMT:ROCK FLOAT ROCKTP:PELITE OREMIN:BIOTITE	19	78	120
T	6081	5600	6600	SAMT:ROCK FLOAT ROCKTP:QUARTZITE OREMIN:IRON STAINING	34	20	20
T	6082	5325	6550	SAMT:ROCK OUTCROP ROCKTP:CALC SILICATE OREMIN:MAGNETITE	149	31	-10

Laboratory:	ANALAB	ANALAB	ANALAB
Instrument:	401	401	101
Det. Limit:	3.000	10.000	10.000

850093

5

GOLDFIELDS EXPLORATION PTY.LTD. DATA SHEET

PROJECT:NARRAWA

MAP-PHOTO:CETHANA 2-SCALE:5000 GRID:DOLCOATH
SAMPLER:R.H.ROBERTS REF.:ROCK SAMPLES

093

SAMPLE IDENT.	NORTH	EAST	FIELD DESCRIPTIONS:	SN PPM	W PPM	MO PPM
T 6083	5385	6585	SAMT:ROCK FLOAT ROCKTP:CALC SILICATE ALTER:WEATHERED OREMIN:AMPHIBOLE	360	126	-10
T 6084	5425	6615	SAMT:ROCK OUTCROP ROCKTP:SKARN OREMIN:AMPHIBOLE, MAGNETITE	201	71	-10
T 6085	5330	6725	SAMT:ROCK OUTCROP ROCKTP:QUARTZ OREMIN:LIMONITE	103	24	60
T 6086	5100	6700	SAMT:ROCK OUTCROP ROCKTP:GREISEN	324	19	20
T 6087	5035	6700	SAMT:ROCK OUTCROP ROCKTP:GREISEN	264	37	10
T 6088	5200	6600	SAMT:DUMP SAMPLE ROCKTP:GREISEN ALTER:SILICIFIED OREMIN:PYRITE	13	619	25
			REMARKS:BLACK'S LODE			
T 6089	5180	6500	SAMT:ROCK FLOAT ROCKTP:QUARTZITE ALTER:VUGGY VEINS:QUARTZ, LIMONITE	1330	244	160
T 6090	5180	6500	SAMT:ROCK FLOAT ROCKTP:QUARTZITE OREMIN:HEMATITE	128	267	290
T 6091	5180	6500	SAMT:ROCK FLOAT ROCKTP:QUARTZ PORPHYRY ALTER:VUGGY OREMIN:LIMONITE	97	810	600

Laboratory:	ANALAB	ANALAB	ANALAB
Instrument:	401	401	101
Det. Limit:	3.000	10.000	10.000

850094

GOLDFIELDS EXPLORATION PTY.LTD. DATA SHEET

PROJECT:NARRAWA

MAP-PHOTO:CETHANA 3-SCALE:5000 GRID:DOLCOATH
SAMPLER:R.H.ROBERTS REF.:ROCK SAMPLES

SAMPLE IDENT.	NORTH	EAST	FIELD DESCRIPTIONS:	GN PPM	W PPM	MO PPM
T 6092	5150	6500	SAMT:ROCK FLOAT ROCKTP:QUARTZITE/PSAMMOPELITE OREMIN:LIMONITE	28	23	90
T 6093	5120	6500	SAMT:ROCK FLOAT ROCKTP:GREISEN OREMIN:WOLFRAM VEINS:QUARTZ	110	12200	10
T 6094	5025	6500	SAMT:ROCK OUTCROP ROCKTP:GREISEN OREMIN:WOLFRAM	19	1500	170
T 6095	5500	6980	SAMT:ROCK OUTCROP ROCKTP:GREISEN OREMIN:WOLFRAM,HEMATITE REMARKS:SAYER'S WORKINGS	716	654	20
T 6096	4250	6400	SAMT:ROCK FLOAT ROCKTP:QUARTZ PORPHYRY	28	46	40
T 6097	4256	6520	SAMT:DUMP SAMPLE ROCKTP:GREISEN REMARKS:DALCOATH MINE	396	509	-10
T 6098	4250	6520	SAMT:DUMP SAMPLE ROCKTP:GREISEN OREMIN:IRON STAINING REMARKS:DALCOATH MINE DUMP	16	703	2300
T 6099	4300	6510	SAMT:DUMP SAMPLE ROCKTP:QUARTZ OREMIN:MOLYBDENITE REMARKS:DALCOATH MINE	11	142	1900
T 6100	4300	6500	SAMT:ROCK OUTCROP ROCKTP:PORPHYRY	21	18	40
Laboratory:				ANALAB	ANALAB	ANALAB
Instrument:				401	401	101
Det. Limit:				3.000	10.000	10.000

094

850093

GOLDFIELDS EXPLORATION PTY.LTD. DATA SHEET

PROJECT:NARRAWA

MAP-PHOTO:CETHANA 2-SCALE:5000 GRID:DOLCOATH
SAMPLER:R.H.ROBERTS REF.:ROCK SAMPLES

SAMPLE IDENT.	NORTH	EAST	FIELD DESCRIPTIONS:	SN PPM	W PPM	MO PPM
T 9417	4400	6500	SAMT:ROCK FLOAT ROCKTP:QUARTZ PORPHYRY	20	44	20
T 9418	4850	6500	SAMT:ROCK OUTCROP ROCKTP:QUARTZITE	60	12	20
T 9419	4950	6500	SAMT:ROCK OUTCROP ROCKTP:QUARTZITE	3	50	30
Laboratory:				ANALAB	ANALAB	ANALAB
Instrument:				401	401	101
Det. Limit:				3.000	10.000	10.000

095

860096

Appendix 3

Interpretation of the Dolcoath grid geophysics, Narrawa

(E.L. 26/85) - Dr. J.R. Bishop

097

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MITRE GEOPHYSICS PTY LTD
MINERAL EXPLORATION AND ENGINEERING CONSULTANTS
DUGGS LANE ELLIOTT TASMANIA 7325 PHONE 004-365143

INTERPRETATION OF THE DOLCOATH GRID GEOPHYSICS, NARRAWA, (E.L. 26/85).

for

Gold Fields Exploration Pty Ltd

by

Dr J.R. Bishop

GF/MG87/03
April 1987

CONTENTS

List of Tables and Figures 2

Summary 3

Introduction 4

Exploration Targets and Geological Setting 4

Exploration History 5

Survey Details 5

- Dighem 5
- Magnetics and VLF 5
- UTEM 6

Interpretation 6

Conclusions and Recommendations 8

References 10

This report has been written as an appendix to G.F.E.L.'s annual report on E.L. 26/85. The figure numbers referred to below are taken from the main body of that report.

LIST OF TABLES & FIGURES

Table 1.	Petrophysical Measurements.	p. 11
Table 2.	Summary of Conclusions and Recommendations.	p. 12
Figure 3.	Dolcoath grid geology (1:5,000 scale).	
Figure 37.	Geophysical compilation (1:5,000 scale).	
Figure 38.	Dighem magnetics and EM anomalies (1:25,000 scale).	
Figure 39.	Ground magnetics contours (1:5,000 scale).	
Figure 40.	Ground magnetics contours (1:1,000 scale).	
Figure 41.	Photograph of coloured magnetic contours.	
Figure 42.	Photograph of coloured magnetic contours (truncated range).	
Figure 43.	VLF dip angle profiles (1:5,000 scale).	
Figure 44.	Fraser filtered VLF profiles (1:5,000 scale).	
Figure 45.	Fraser filtered VLF contours (1:5,000 scale).	
Figure 46.	Fraser filtered VLF contours and UTEM responses (1:1,000 scale).	
Figure 47.	VLF pseudosections: lines 5200E to 6600E (1:2500 scale).	
Figure 48.	Extent of the Dolcoath Granite (1:63,360 scale).	

Figures referred to, but not included in this report.

Dighem resistivity contours (1:25,000 scale).

UTEM profiles (1:3,000 scale).

100

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SUMMARY

A number of geophysical surveys have been carried out over the Dolcoath grid for CRA as part of their base-metal exploration program. This data has been re-assessed for its application towards GFEL's gold targets in the same area. The UTEM and VLF have proved most useful with partially coincident zones overlying the old workings at the Higgs and Narrawa gold mines. Extensions to both areas are indicated. These workings are associated with regional magnetic features, but the magnetic method is unlikely to be a direct ore finder here. Nevertheless, together with the VLF, it should assist interpretation of the region's structure. A summary of the recommendations, including a drill target, is given in Table 2.

INTRODUCTION

E.L. 26/85 (Narrawa) is located in central northern Tasmania in an old mining area, which is often referred to as the Moina district. Tungsten was the major metal mined, but tin, molybdenum, bismuth and gold have also been extracted.

The E.L. contains a number of abandoned gold mines and this is the main target in an exploration program being managed by Gold Fields in an agreement with C.H. Whitehead, the licencee. The area was previously held by CRA, who conducted a number of geophysical surveys during their search for base-metals. The change in exploration emphasis has necessitated a re-interpretation of the data and this is given in this report.

EXPLORATION TARGETS AND GEOLOGICAL SETTING

The grid overlies Ordovician sediments belonging to the Moina Sandstone. Quartzites and sandstones with argillaceous areas have been recognised. Both contain disseminated pyrite. Zones of calc-silicate and hornfelsing have also been mapped. The eastern end of the grid laps onto the Dolcoath Granite and some quartz porphyry dykes have been mapped across the gridded area (see Figure 3). The strike of the rocks appears to be subparallel to the grid baseline, however outcrop is scarce and few dips have been measured.

The Narrawa and Higgs gold mines occur within the gridded area, as do the auriferous 'Packetts' and other un-named workings. The mineralisation at the Narrawa and Higgs workings is associated with disseminated sulphides in quartzite. At Higgs the gold appears to occur between two steeply dipping shears, two to four metres apart. At Narrawa one steeply dipping shear has apparently been followed in the adit. Although the more sulphidic zones are often richer, gold also occurs in sulphide-free areas (Roberts, pers. comm.). Gold values between 5 and 10g/t have been recorded. The target is for either an extension to these workings (with consistent grades), or for a similar site not yet discovered. It is probable that the gold will be structurally controlled; eg, a feeder fault from the underlying granite or an adjacent porphyry dyke. Replacement of any calcareous zones in the sediments might also provide a large tonnage (low-grade) deposit.

IP should be most applicable for defining the areas of pyritisation and resistivity for areas of silicification. However it is argued later in this report, that if pyrite is very extensive, this technique may not be very discriminatory for gold (although a test survey for spectral discrimination is suggested). VLF data has been recorded and this should help outline the structure. It may also be expected to define extensive pyritic horizons. The Moina sandstone has a very low magnetic susceptibility, but magnetics should locate the skarn horizons and possibly the porphyry dykes.

EXPLORATION HISTORY

E.L. 7/73 was taken out by Asarko who joint ventured with CRAE in 1976. Geophysical surveys prior to CRAE's interest consist of two regional aeromagnetic surveys (Flis, 1982). These have been superceded by the recent Mines Dept survey (Bishop, 1987).

CRAE's exploration program, for base-metal and tin mineralisation, apparently did not start until the 1980's. In 1981, a Dighem survey was carried out for CRAE and Gold Fields has the results from that part of the survey which covers the Dolcoath grid. One grade 1 EM anomaly and one 'possible' anomaly were recorded over the grid. These lie close to old workings and are most probably due to sulphides and/or structure associated with the mineralisation. Following the Dighem survey, the Dolcoath grid was established and VLF and magnetic surveys were carried out, together with mapping and soil geochemistry. A UTEM survey was carried out over the old workings (Figure 37). Following this work, CRAE drilled three targets with disappointing results, for gold as well as base metals (Weber, 1982).

SURVEY DETAILS

Gold Fields has re-established CRA's grid. This extends from 5000E to 6700E at 100m intervals with shorter intermediate lines between 5600E and 6100E. All lines were pegged every 25m. This report comments on the following geophysical surveys.

DIGHEM

The Dighem survey was carried out in February, 1981 (Dvorak and Vergos, 1981). Flight lines were flown north-south at a nominal spacing of (?)200m. Gold Fields has 1:25,000 scale plans of the EM anomalies, magnetics and resistivity over the grid and the surrounding area . Figure 38 shows the EM anomalies superimposed on the magnetic contours. The resistivity contour plan shows no variation (ie, everywhere greater than 1000ohm-m) except for the immediate area around the Dolcoath anomalies and it is not included in this report.

MAGNETICS and VLF

All of the gridded area has been covered by total field (proton precession) magnetics at a 12.5m spacing. Most of the grid has been surveyed with VLF at a 25m spacing (coverage shown on Figure 37). Dip, field strength and 'out-of-phase' were recorded using the NWC transmitter. (A short test was carried out using Japan, but as might be expected with the north-west strike direction, no better results were obtained.) These surveys were carried out

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* A plan of the enhanced magnetics is presumably also available.

prior to May 1982 (Flis, 1982). Gold Fields has covered the intermediate lines with magnetics and VLF and completed the VLF coverage on line 6100E. This data has been tied in and added to the CRA results.

UTEM

In 1981/82 a UTEM survey was carried out over the old workings within the Dolcoath grid (Macnae and Glass, 1982). One large transmitting loop was used, placed on the north side of the survey lines. (Macnae and Glass indicate that this may have produced poor coupling for any depth limited conductors.) The results were produced in the usual way as continuously normalised profiles. Gold Fields has copies of the originals at 1:3000 scale. The position of the transmitting loop, the coverage and my interpretation (which is very similar to that of Macnae and Glass) are given in Figure 37.

INTERPRETATION

The Dighem magnetics (Figure 38) shows the area of outcropping granite as a region of relatively flat magnetics immediately to the east of the Dolcoath grid. Magnetic responses occur along the north and south margins and are presumably a contact effect. Two low-grade EM responses, 19I and 20XR, were recorded over the gridded area. These are described by Weber (1982) and Flis (1982) as overlying the Higgs and Packett's workings respectively, although in Figure 38, with the "grid only approximately positioned", the responses coincide with the Narrawa workings. The two adjacent EM anomalies to the north-east of the grid occur over the Wilmot power station and thus 'cultural' causes have been interpreted for these responses.

The magnetic contour plan shown in Figure 39 is a redrafting of the original CRA data, with Figure 40 a more detailed map over the old workings. Figures 41 is a photograph of a computer screen showing the magnetic data as coloured contours. Figure 42 shows the same data, but with the colours divided into a smaller range of values . The results show a large deep-seated anomaly on the western side of the grid and a smaller, but similarly buried source in the south-east corner. These anomalies are possibly due to Cambrian volcanics beneath the sediments, but whatever their cause, they are not considered relevant to our model for gold mineralisation and have therefore not been interpreted#. Of more interest is the broad, (grid) north-east trending zone of disturbed magnetics, which contains several local extreme (high

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* This data includes the intermediate lines, but data south of 4600N has been truncated.

Flis (1982) has modelled these two anomalies; both have southerly dips.

and low) values. Investigation of the magnetic properties of a representative suite of rocks is recommended. (Magnetic susceptibility measurements of a few mineralised samples gave only very low values; see Table 1.)

The UTEM survey did not locate any good conductors, however two weak zones were defined on the early channels (9 & 8; sometimes to 7). These coincide with, and extend, the lines of the Narrawa and Higgs workings (and are referred to below as the Narrawa and Higgs responses respectively -see Figure 37). The Narrawa responses are much larger in amplitude (suggesting a larger source) and plunge to the west. The Higgs responses also decrease in amplitude westwards, but this is probably due more to a decrease in source volume than an increase in depth. Three other short (two line) zones were defined by the UTEM survey. One of these, to the west of Packetts, may be of interest.

There is a close correspondence between the UTEM and the VLF results. The latter are shown as raw dip angle profiles in Figure 43 and as the transformed, Fraser filtered data (Fraser, 1969) in Figure 44. The VLF data is also shown as contours in Figure 45 and in more detail around the old workings in Figure 46. It can be seen in the latter figure, and in the geophysical compilation (Figure 37) that the VLF was effective in detecting the mineralised areas. Zones A & B coincide with sections of the Narrawa and Higgs UTEM responses respectively. A very long zone was also recorded near the Packetts workings, overlapping the short UTEM anomaly. These three zones are parallel. Several other VLF zones were defined. Only one, 'G', parallels the 'lode lines', but 'F' is sub-parallel and others may coincide with geochemical anomalies. For example, zone E is associated with anomalous base metal geochemistry. Although part of the strong responses defining 'E' are probably due to topography, part is also due to a bedrock conductor; ie, either a porous fault or fracture, or, more optimistically, sulphides.

The VLF data has also been processed to produce pseudosections (Figure 47). This technique is described by Karous and Hjelt (1983) and is suggested by them as being useful for defining the change in current density with depth. Thus the dip and thickness of conductors can perhaps be determined. A simple filter (after Fraser, 1981) was used to produce the results in Figure 47. Inspection of the pseudosections shows that the responses beneath the workings are narrow, in contrast to most of the others, with dips varying from steep south to steep north *.

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* I have not previously tried this technique, but doubt that it is as effective as the mostly academic paper claims. It is emphasised that the pseudosections are purely qualitative and that depths cannot be scaled from them.

CONCLUSIONS AND RECOMMENDATIONS

The electrical methods have been successful in detecting the areas of known mineralisation and in possibly extending these zones, as well as in defining other anomalous zones quite separate from known mineralisation. The partial coincidence between the early time UTEM and the VLF is interesting. On the Narrawa zone, the VLF extends further to the west and the UTEM further to the east. On the Higgs zone, both techniques 'start' on line 6300E, but the UTEM extends some 250m further to the west. On the Packetts zone, the UTEM coincides for only 100m of the 1000m long VLF response. That is, one method has not consistently 'outperformed' the other. However the UTEM over Higgs accurately defines the western limit of the known mineralisation, whereas the VLF stops some distance short. On the Narrawa UTEM zone, the source appears to plunge to the west, however the VLF data persists past the UTEM. Thus the better penetration of the UTEM method does not provide the answer. Rather, the differences are likely to be due to a combination of the coupling and distance of the UTEM transmitting loop to the sources (eg, the Packetts zone is furthest from the loop), and the relative importance of induction and current channeling: the former usually dominating the UTEM responses and the latter, the VLF.

Inductive measurements on a few mineralised samples from the Higgs and Narrawa workings gave zero conductivities (Table 1), however it seems likely that the UTEM and VLF responses are at least in part due to sulphides (disseminated sulphides to about 5% were obtained beneath the Narrawa workings in DDH DG-1) and thus there may be little benefit in carrying out an IP survey to locate mineralised areas, especially since the laboratory measurements gave only moderate chargeability values (see Table 1). An IP survey over a potential drill target may give more geometrical information about the source (ie, size and dip) than the EM methods and this may be worth doing. If so, it is recommended that a spectral analysis of the results be carried out to see if the areas of gold-bearing mineralisation can be distinguished from barren sulphides.

Since drill holes beneath the Narrawa workings have produced disappointing results, it is recommended that the next holes be placed beneath the Higgs workings. The geophysical results are stronger to the east of the main workings and a target beneath 6100E/4960N is recommended for drilling.

If this initial program proves successful, a better understanding of the general structure and the nature of the granite topography will probably be required and geophysics may be of assistance. Sheehan (1969) in a regional gravity study of the area, writes that the gravity data indicates an elliptical body of granite with the major axis of 12km length trending about NNE and with a minor axis about 3km long. Sheehan notes that his interpretation is in agreement with an intersection of granite in the Wilmot-Cethana H.E.C. tunnel at a depth below surface of about 240m and

with the observations by Gee (1966) who postulated a westerly extension of the granite towards the Shepherd and Murphy mine. Figure 48 from Sheehan (1969) shows the interpreted edge of the Dolcoath granite from the gravity data.

More locally, a better understanding of the magnetics and especially the north-east trending 'disturbed' zone may lead to a better understanding of structure. It is therefore suggested that image processing of the data from the Mines Dept's aeromagnetic survey for the area immediately around the lease may provide more information than that given in the regional interpretation by Bishop (1987). These recommendations are summarised in Table 2.

J.R. Bishop
April, 1987

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Table 1

PETROPHYSICAL MEASUREMENTS

Samples: Dump samples

Measured by: Prof. D.W. Emerson, Uni. of Sydney.

Date: Feb., 1987.

SAMPLE No.	GFL No.	MAGNETIC SUSCEPTIBILITY cgs x 10^{-6}	POROSITY (%)	DRY BULK DENSITY t/c.m.	IN SITU DENSITY t/c.m.	RESISTIVITY ohm-m (@ 0.1Hz)	CONDUCTIVITY Siemans/m	IP EFFECT PFE/milliradians (0.1-1.0 / 0.1Hz)	PETROLOGY
Higgs Mine									
33/1 (a)	T4788	20	7.4	2.74	2.81				
(b)		20	9.5	2.79	2.89	186	0	12 / -70	dissem. sulphides in qtz-bte sst.
33/2 (a)	T4789	10	5.3	2.59	2.64				
(b)		10	5.5	2.58	2.64	225	0	4 / -30	dissem gn & py in metasst.
Narrawa Reward									
33/3 (a)	T4790	0	10.0	2.5	2.60	204	0	9 / -72	semi-massive sulph's
(b)		0	7.9	2.62	2.70				in recryst'd metasst.
(c)		0	9.5	2.51	2.61				
33/4 (a)	T4791	40	9.4	3.4	3.49	174	0	25 / -131	"
(b)		30	8.3	3.2	3.28				
(c)		30	11.5	3.13	3.25				

IP/resistivity measurements made in water bath with 60ohm-m tap water.

Conductivity measured inductively at 2.5Mhz.

Chargeability is approximately equivalent to phase angle in milliradians.

Table 2

Geophysical Surveys over the Dolcoath Grid, E.L. 26/85.

SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS

* VLF and UTEM responses occur over known mineralisation.

* A geophysical drill target, based on the above, is beneath 6100E/4960N. Depth of target is probably less than 50m.

* IP surveys suggested only for siting drill targets. Spectral analysis of results to see if gold-bearing mineralisation can be discriminated.

* Image processing of aeromagnetic data for structural information over region around Dolcoath Granite.

* Gravity useful for mapping extent and shape of Dolcoath Granite.

Appendix 4

Drill logs and plots of ND-1, 2, 3

111

HOLE NO. : ND-1
STATE : TAS

ULV. PRESS

GOLD FIELDS EXPLORATION PTY. LIMITED
DRILL CORE RECORD

PROJECT	NARRAWA
DESIGNED BY	R.H. ROBERTS
LOGGED BY	R.H. ROBERTS
COMMENCED	29.5.87
COMPLETED	9.6.87

PURPOSE

To test for gold mineralisation beneath the open cut at West Higgs where significant gold values had been indicated by channel sampling.

LOG SUMMARY

GENERAL COMMENTS

An interbedded sequence of quartzites and psammopelites, with pelitic and calc-silicate hornfelses occurring in the more psammopelitic units.
A broken zone from 60 to 65.5 metres appears to correlate with shearing at surface. Pyrite occurs on microfractures throughout the core.
Minor base metal sulphides occur in small gash veins. Minor base metal sulphides plus wolfram and molybdenite occur in quartz-sericite-clay veins sub-parallel to the core axis.

ASSAY SUMMARY

INTERVAL (m) From	To	Au	Cu	Pb	Zn	Ag	As	Bi	ppm					COMMENTS
83	94	0.62	96	1162	1355	2.2	22	<10						
94	103	0.27	373	16	36	<.5	256	129						

LOCATION

NORTHING	5406793.4
EASTING	425363.3
R.L.	
GRID	5750E 4940N
LENGTH	134.3m

HOLE CONDITION

SIZE Hole Size	Depth
HQ	134.3m

SIGNIFICANT CORE LOSS INTERVALS From	To	% Lost
0	7	No Core
60	64	25%

POOR GROUND CONDITION ZONES From	To	Condition

HOLE CONDITIONS AFTER COMPLETION

HW casing removed to extract hole advancer. Top of hole lost in fill.
All HQ rods removed.

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

SURVEY Depth	Bearing (M.N.)	Dip	INTERVAL From	To	Distance	VERTICAL D. Sin. Dip	R.L.	HORIZONTAL D. Cos. Dip	Prog. Total
0.0	197°	-55	0.0	19.0	19.0	15.56		10.90	
38.0	197°	-54	19.0	56.0	37.0	29.93		21.75	
74.0	197°	-52.5	56.0	89.0	33.0	26.18		20.09	
104.0	198°	-50.5	89.0	118.0	29.0	22.28		18.45	
132.0	199°	-49.5	118.0	134.3	16.3	12.39		10.59	
134.3			=E.O.H.						

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

8501112

850113

PROJECT: NARRAWA HOLE NO.: ND-1

GOLD FIELDS EXPLORATION PTY. LIMITED

DRILL HOLE PLOT

SCALE 1:1000

5 cm

406 793·374 mN
425 363·272 mE

600m R.L.

020° MN

200° MN

PLAN VIEW

5100N

5000N

550m R.L.

5250E/4940N
197°/-55°

WEST HIGGS CUT-7

4900N

CREEK

INTERPRETED TREND OF BRECCIATED QUARTZITES

QTZ/Ps

Py. Sel. 1-2% SULPHIDE LAYERING

CS

PATCHY Py-SER-QTZ ALTERATION

QTZ/Ps

ZONE OF BRECCIATED AND BROKEN CORE WITH VUGGY Py MIN. (Py ≤ 5%)

Ps/Pe

MINOR Py-SER-QTZ ALTERATION

QTZ/Ps

MINOR Py-BASE METAL VEINING BOTH PARALLEL TO C.A. AND PARALLEL TO BEDDING

MINOR Py-Cpy VEINING

83 - 103 m
20m @ 0·48 g/t Au
incl. 92 - 93m
1m @ 6·18 g/t Au

Ps/Pe

Ps

QTZ/Ps

134·3m

Csi

500m R.L.

450m R.L.

DIP PROFILE

LEGEND

LITHOLOGIES

	QZT	PREDOMINANTLY QUARTZITE
	QZT/Ps	QUARTZITE TO PSAMMOPELITE
	Ps/Pe	PSAMMOPELITE TO PELITE COMMONLY WITH MINOR BANDS OF CALC-SILICATE
		PELITE RICH UNITS
	Cs	CALC-SILICATE RICH UNITS WITH PELITE, PSAMMOPELITE & QUARTZITE
	SK	GARNET SKARN AND BANDED CALC-SILICATES

STRUCTURE

	BEDDING
	CONTACTS
	SHEARS
V	VEINS
	MICROFOLDING

NOTE

JOINT FRACTURES OCCUR SUB-PARALLEL TO CORE AXIS THROUGHOUT THE DRILL HOLE. THESE FRACTURES ARE TYPICALLY COATED WITH PYRITE.

PYRITE ALSO COMMONLY OCCURS IN DENDRITIC MICROFRACTURES WITHIN THE QUARTZITES.

FIG. 49

STATE: TAS.

HOLE NO: ND-1

211

GOLD FIELDS EXPLORATION PTY. LIMITED

PROJECT:

DRILL CORE LOG AND ASSAY DATA

HOLE NUMBER: ND-1 Page: 113

INTERVAL From	INTERVAL To	RECOVERY m	RECOVERY %	DESCRIPTION
				SUMMARY LOG
				LITHOLOGY
0	7			No core
7	18.9			GREY QUARTZITE TO PSAMMOPELITE
18.9	27.7			Quartzite and Psammopelite with Pelite and Calc-silicate Bearing Hornfels
27.7	40.5			Quartzite to Psammopelite
40.5	46.0			Pelite and Psammopelite with bands of calc-silicate hornfels
46.0	73.0			Quartzite to Psammopelite
				60.5-65.5: Fractured and brecciated quartzites. Broken core and patches of vuggy quartz-pyrite.
73.0	91.6			Psammopelite with minor bands of pelite and calc-silicate hornfelses
91.6	94.4			Laminated Pelite
94.4	121.0			Quartzite to Psammopelite
121.0	134.3			Conglomerate to Pebbly Quartzite to Quartzite
				MINERALISATION
				Pyrite (typically 1% or less) occurs throughout the hole on fractures sub-parallel to the core axis; and on dendritic fractures within more massive quartzite units.
35.8	35.9			Layers and veins (1-2mm wide) of pyrite and galena (1-2%)
37-0	40.0			Minor pyrite and galena (≤1%)
60.0	65.5			Pyrite varies up to 10%, but is typically 2-5% within the brecciated quartzites. 63-65.5. Minor base metals.
81.6	93.2			Small (<1cm wide) gash veins with pyrite-galena-sphalerite and ? arsenopyrite (<1%)
94.4	102.0			Quartz-pyrite-chalcopyrite-sericite in small veins sub-parallel to bedding (1%)
				Veins of clay-sericite-quartz ± fluorite occur sub-parallel to the core axis. These veins contain minor amounts (up to 1%) of pyrite; sphalerite, wolfram and molybdenite. Such veins occur at 67.0 - 69.4 metres, 83.7 - 83.9 metres, and from 106.1 to 117.3 metres.

ASSAY DATA Sample No.	From	To	Rec. %

8201144

GOLD FIELDS EXPLORATION PTY. LIMITED

PROJECT:

DRILL CORE LOG AND ASSAY DATA

HOLE NUMBER: ND-1

INTERVAL From	INTERVAL To	RECOVERY m	RECOVERY %	DESCRIPTION	ASSAY DATA Sample No.	From	To	Rec. %	Au	Cu	Pb	Zn	Ag	Bi	Mo	As	Sn	W
0	7			No Core														
7	18.9			GREY QUARTZITE TO PSAMMOPELITE	T9001	7.0	10.0	66	x	10	20	30	<0.5	<10	<5	12	24	<10
				Microfracturing sub-parallel to the core axis with minor pyrite	T9002	10.0	12.0	100	x	15	55	110	<0.5	<10	<5	15	20	<10
				14.0 : 10cm of greenish pug	T9003	12.0	14.0	100	x	10	15	95	<0.5	<10	<5	5	24	<10
				14.4: : Pelitic fabric/CA = 40°	T9004	14.0	16.0	100	x	10	10	45	<0.5	<10	<5	8	37	18
				16-18.9: Quartz veins/CA = 70°	T9005	16.0	18.0	97	x	10	20	70	<0.5	<10	5	14	18	14
					T9006	18.0	20.0	99	x	45	30	150	<0.5	<10	5	19	20	<10
18.9	27.7			QUARTZITE AND PSAMMOPELITE WITH PELITE AND CALC-SILICATE	T9007	20.0	22.0	100	x	10	40	85	<0.5	<10	<5	20	31	<10
				BEARING HORNFELS	T9008	22.0	24.0	100	x	20	30	70	<0.5	<10	<5	14	26	<10
				Pyrite on microfractures	T9009	24.0	26.0	98	x	40	30	60	0.5	<10	<5	14	32	<10
18.9	20.7			Greenish quartzite with green-brown patches of biotite-bearing and calc-silicate-bearing hornfels	T9010	26.0	28.0	97	x	40	45	70	1.0	<10	<5	21	59	<10
				20.7: Bedding/CA = 75°														
20.7	21.9			Chlorite-Pyrite in fractures sub-parallel to core axis. Quartz veins cut across earlier fractures.														
21.9	22.3			Calc-silicate/greywacke hornfels														
22.3	24.9			Grey quartzite, 24.3: Bedding/CA = 85%														
24.9	27.7			Calc-silicate/greywacke hornfels														
				Min: Pyrite (up to 1%) on fractures and in calc-silicate patches.														
				25.6-26.0: Sheared sericitic fabric with quartz boudins - fabric/CA = 78%														
27.7	40.5			QUARTZITE TO PSAMMOPELITE	T9011	28.0	30.0	93	x	10	20	50	0.5	<10	<5	15	11	<10
				Patchy sericitic alteration and minor sulphides	T9012	30.0	32.0	93	x	35	45	50	1.0	<10	5	11	25	<10
27.7	30.0			Sericitic quartzite	T9013	32.0	34.0	93	x	40	75	255	1.0	<10	5	5	41	<10
30.0	30.4			Sheared sericitic fabric with quartz boudins - fabric/CA = 60-63°	T9014	34.0	36.0	93	x	155	1025	1100	5.5	20	5	9	185	<10
				Min: Pyrite (1%) in sheared zone	T9015	36.0	37.0	93	x	45	260	270	3.0	<10	<5	53	56	<10
30.4	32.2			Sericitic, quartzite, siliceous nodules. Pyrite along thin fractures	T9016	37.0	38.0	93	0.060	45	665	530	3.0	<10	5	170	24	<10
32.2	32.5			Sheared sericitic fabric with quartz boudins - fabric/CA = 78°	T9017	38.0	39.0	93	0.060	180	7300	8200	<2	<10	<5	30	424	<10
32.5	35.8			Quartzite to Psammopelite	T9018	39.0	40.0	93	0.070	40	510	3100	4.5	<10	<5	59	46	<10
				Min: Pyrite in dendritic fractures and in fractures sub-parallel to core axis	T9019	40.0	41.0	100	0.030	60	1225	3950	4.0	10	<5	20	70	21
35.8	35.9			Sericitic quartzite to psammopelite														
				Min: Layered and veined pyrite and galena - 1 + 2%														
35.9	36			Vuggy quartz-pyrite-sericite zone - pyrite 1 +2%														
36	40.5			Sericitiz quartzite														
				Min: Patchy pyrite and galena up to 1%. Pyrite on fractures. Fractures/ CA = 30°-45°.														

850116

GOLD FIELDS EXPLORATION PTY. LIMITED

PROJECT: NARRAWA

DRILL CORE LOG AND ASSAY DATA

HOLE NUMBER: ND-1

115

INTERVAL From	INTERVAL To	RECOVERY m	RECOVERY %	DESCRIPTION	ASSAY DATA Sample No.	From	To	Rec. %	Au	Cu	Pb	Zn	Ag	Bi	Mo	As	Sn	W
40.5	46			**PELITE AND PSAMMOPELITE WITH BANDS OF CALC SILICATE**	T9021	41	42	100	0·010	65	275	1800	3·5	<10	<5	15	97	<10
				HORNFELS	9022	42	43	100	x	50	115	550	2·5	<10	<5	39	73	<10
				Pyrite on microfractures	9023	43	44	100	x	35	560	740	3·5	<10	<5	45	33	<10
				43.9 : Bedding/CA = 90°	9024	44	45	100	x	80	515	565	4·0	<10	<5	15	104	12
				44.2-44.4: Vuggy quartz-pyrite-sericite alteration (Pyrite 1 - 2%)	9025	45	46	100	x	50	70	95	2·0	<10	5	18	107	<10
46	73			**QUARTZITE TO PSAMMOPELITE**	9026	46	47	100	x	15	225	160	2·0	<10	<5	31	23	<10
				Common sericitic alteration. Pyrite throughout on microfractures -	9027	47	48	100	x	30	45	75	1·0	<10	<5	280	14	<10
				sub-parallel to the core axis.	9028	48	49	100	x	30	35	30	1·5	<10	<5	45	14	<10
46	53.7			Quartzite with pyrite on microfractures	9029	49	50	97	x	45	25	20	1·5	<10	<5	200	19	<10
				50.3 : Vuggy quartz-pyrite-sericite	9030	50	51	97	x	45	20	20	2·0	<10	<5	48	33	<10
				51.2-51.3: Vuggy quartz-pyrite-sericite	9031	51	52	97	x	160	5	45	2·0	<10	<5	54	41	<10
53.7	54.2			Psammopelite to Pelite	9032	52	53	100	x	90	5	25	2·0	<10	<5	36	121	<10
				54.2 : Bedding/CA = 72°	9033	53	54	100	x	70	1200	2000	3·5	<10	60	25	92	18
				54.2: Min: Quartz-pyrite-galena vein (up to 5% sulphide) sub-parallel	9034	54	55	100	x	190	2050	1800	4·5	<10	10	9	59	<10
				to bedding	9035	55	56	100	x	125	15	80	2·0	10	<5	12	23	<10
54.2	60.0			Quartzite with pyrite on dendritic microfractures	9036	56	57	100	x	90	5	20	1·5	10	<5	66	15	<10
60.0	65.5			**Fractured and brecciated quartzites. Patches of very broken core.**	9037	57	58	100	x	80	<5	20	1·5	10	<5	63	14	<10
				Sericite alteration.	9038	58	59	100	x	125	<5	15	1·0	<10	<5	33	22	<10
				60.7-61.0: Vuggy quartz-pyrite (pyrite up to 10%) Coarse pyrite cubes.	9039	59	60	100	x	85	<5	10	1·0	<10	<5	33	31	<10
				61.0-65.5: Puggy sericite /clay on fractures and within brecciated	9041	60	61	85	x	325	15	40	3·0	<10	<5	93	81	17
				quartzite. Sericite alteration (64.2: Sericite fabric/CA = 49°)	9042	61	62	65	x	130	10	30	2·5	20	30	280	44	20
				Min: Pyrite up to 5% with minor base metals.	9043	62	63	65	x	245	25	240	4·0	10	<5	210	44	21
65.5	73.0			Grey quartzite	9044	63	64	85	0·070	470	2500	4000	<2	30	<5	280	44	13
				67.0 : Clay/sericite filled fracture vein. Vein/CA = 21°	9045	64	65	100	0·030	180	80	190	1·5	40	<5	100	32	<10
				66.8 : Pyrite on microfracture at right angles to clay/sericite vein.	9046	65	66	100	x	210	55	605	1·5	<10	<5	390	50	<10
				Fracture/CA = 35°	9047	66	67	90	x	105	10	40	1·0	<10	<5	51	16	<10
				67.8-68.0: Clay/sericite vein (1-2 cm wide) with cubic pyrite. Vein/CA =	9048	67	68	100	x	195	45	110	1·0	<10	<5	49	32	<10
				7°. 68.9-69.4: Clay/sericite vein. Vein/CA = 16°.	9049	68	69	100	x	30	15	20	<0·5	<10	<5	90	33	<10
				69.4-73 : Patchy bands of quartz-pyrite-sericite vuggy alteration.	9050	69	70	100	x	120	1000	2650	5·5	20	<5	67	121	17
				(pyrite up to 1%).	9051	70	71	100	x	60	200	180	<0·5	10	<5	62	62	<10
73	91.6			**PSAMMOPELITE WITH MINOR BANDS OF PELITE AND CALC-**	9052	71	72	100	x	100	40	196	<0·5	10	<5	77	93	<10
				SILICATE HORNFELS	9053	72	73	100	x	45	65	306	<0·5	<10	<5	19	98	<10
73.0	78.0			Psammopelite to quartzite. Vuggy patches of quartz-pyrite-sericite	9054	73	74	93	x	30	155	385	<0·5	<10	<5	16	70	12
				alteration (pyrite up to 1%).	9055	74	75	93	x	15	300	180	<0·5	<10	<5	9	34	41
78.0	81.2			Psammopelite. Minor pyrite on fractures.	9056	75	76	93	x	15	115	95	<0·5	<10	<5	13	11	<10
81.2	83.9			Quartzite. Pyrite (up to 1%) on fractures.	T9057	76	77	97	x	10	80	45	<0·5	<10	<5	14	6	<10

850117

GOLD FIELDS EXPLORATION PTY. LIMITED

PROJECT: **DRILL CORE LOG AND ASSAY DATA** HOLE NUMBER: ND-1 Page: 3

116

INTERVAL From	INTERVAL To	RECOVERY m	RECOVERY %	DESCRIPTION	Sample No.	From	To	Rec. %	Au	Cu	Pb	Zn	Ag	Bi	Mo	As	Sn	W
				81.6 : Min. - Small veins with minor pyrite and galena.	T9058	77	78	97	x	35	70	40	<0.5	<10	<5	23	12	<10
				82.3-82.5: Vuggy quartz-pyrite band.	9059	78	79	97	x	100	545	1600	2.0	10	<5	6	45	<10
				83.7-83.9: Clay/sericite fracture vein containing pyrite. Vein/CA = 5°	9061	79	80	100	x	180	185	150	0.5	<10	<5	15	45	42
83.9	86.3			Psammopelite	9062	80	81	100	0.010	140	100	245	<0.5	<10	<5	7	90	<10
				83.9-84.1: Min. - Disseminated pyrite-galena-sphalerite (up to 0.5%)	9063	81	82	100	0.060	125	1600	2050	3.5	20	<5	9	68	<10
				84.5: 5mm wide sericite-rich shear. Shear/CA = 86°	9064	82	83	93	0.050	135	950	1300	2.5	<10	<5	12	26	<10
				85-86.3: Min. - Minor veins with pyrite-arsenopyrite-galena (up to 0.5%)	9065	85	84	93	0.150	135	1350	1950	2.0	<10	10	30	42	15
86.3	91.6			Psammopelite with calc-silicate lenses.	9066	84	85	93	0.290	210	3100	3200	7.0	10	<10	16	65	15
				86.3: Bedding/CA = 80°	9067	85	86	97	0.040	130	2000	2300	7.5	10	10	73	36	<10
				89.0: Pelite lenses (bedding)/CA = 88°	9068	87	87	97	0.330	70	655	1250	<0.5	<10	10	21	64	<10
				91.5-91.6: Quartz vein with wolfram	9069	87	88	97	0.040	50	285	345	<0.5	<10	20	12	102	<10
91.6	94.4			**LAMINATED PELITE**	9070	88	89	100	x	30	290	375	<0.5	<10	<10	8	98	<10
				91.6 Quartz-pebble layer	9071	89	90	100	0.060	140	360	2450	1.0	10	20	18	465	<10
				Bedding/CA = 88°	9072	90	91	100	0.050	145	380	1850	1.0	<10	10	15	174	<10
				92.0-92.2: Microfolding with thin lenses of pyrite-sphalerite (1%)	9073	91	92	100	0.030	50	60	280	<0.5	<10	10	38	44	1030
				92.2 : Bedding/CA = 87°	9074	92	93	100	5.760	30	1300	280	<0.5	10	<10	7	3	21
				92.3 : Galena in a gash vein (1 cm wide)	T9075	93	94	100	0.070	70	3050	620	4.0	<10	130	9	46	<10
				92.4 : Quartz-chlorite-galena vein														
				93.0 : Bedding/CA = 83°														
				93.2 : Pyrite - galena vein														
				94-94.4: Cordierite-bearing pelite														
				94.2: Bedding/CA = 81°														
94.4	121.0			**QUARTZITE TO PSAMMOPELITE**	T9076	94	95	97	x	150	10	70	<0.5	<10	10	13	44	21
				Bands of sericitic alteration. Minor pyrite typically on fractures sub-	9077	95	96	97	0.330	710	20	45	<0.5	290	<10	1700	41	98
				parallel to the core axis and on dendritic fractures.	9078	96	97	97	0.020	255	10	25	<0.5	<10	<10	34	42	32
				98.2-98.3: Quartz-pyrite-fluorite vein. Vein/CA = 60°	9079	97	98	100	0.010	245	20	30	<0.5	50	10	40	32	112
				98.3 : Bedding/CA = 75° in sericitic quartzite	9081	98	99	100	0.600	305	15	30	<0.5	210	<10	180	66	24
				99.7: Vein of Quartz-pyrite-clay-sericite-chalcopyrite-wolfram	9082	99	100	100	0.570	235	20	30	<0.5	300	<10	190	23	50
				100: Sericitic fabric in quartzite. Fabric/CA = 72°	9083	100	101	100	0.290	730	10	25	<0.6	80	<10	44	68	110
				Min: Minor pyrite and chalcopyrite in gash veins.	9084	101	102	100	0.220	275	20	30	<0.5	100	<10	72	61	51
				102: Quartz-sericite-pyrite vein	9085	102	103	100	0.390	450	20	40	<0.5	120	10	33	29	17
				106.1-110: Vein (1cm wide) sub-parallel to core axis. Contains	9086	103	104	100	x	170	15	25	<0.5	<10	20	24	22	33
				Quartz-clay-sericite-fluorite with slugs of pyrite,	9087	104	105	100	0.010	255	10	30	<0.5	50	160	14	48	52
				sphalerite, wolfram and molybdenite.	9088	105	106	100	x	210	10	20	<0.5	<10	10	17	42	22
					9089	106	107	100	x	145	75	35	<0.5	60	130	27	49	537
					9090	107	108	100	x	160	15	30	<0.5	<10	<10	30	34	21

850118

117

GOLD FIELDS EXPLORATION PTY. LIMITED

PROJECT: NARRAWA

DRILL CORE LOG AND ASSAY DATA

HOLE NUMBER: ND-1 Page: 4

INTERVAL From	INTERVAL To	RECOVERY m	RECOVERY %	DESCRIPTION
				Vein also present from 113.4 to 114.3 metres and 116.6 to 117.3 metres
				and lies sub-parallel to core axis
				117.5: Sericitic fabric in quartzite. Fabric/CA = 78°
				120 : Bedding/CA = 72°
121	134.3			CONGLOMERATE TO PEBBLY QUARTZITE AND QUARTZITE
				Minor disseminated pyrite and pyrite on fractures.
				133-134.3: Min. Minor slugs of Molybdenite.
				133.8 : Slug of magnetite.

ASSAY DATA

Sample No.	From	To	Rec. %	Au	Cu	Pb	Zn	Ag	Bi	Mo	As	Sn	W
T9091	108	109	100	x	105	20	45	<0.5	<10	90	26	29	3500
9092	109	110	100	x	95	185	45	<0.5	210	170	18	29	2480
9093	110	111	100	x	290	10	60	<0.5	30	<10	21	59	46
9094	111	112	100	x	100	20	95	<0.5	10	20	24	42	382
9095	112	113	97	x	125	10	40	<0.5	<10	110	38	45	79
9096	113	114	97	x	155	15	45	<0.5	10	120	38	59	22
9097	114	115	97	x	170	40	45	<0.5	110	80	28	76	26
9098	115	116	97	x	140	10	40	<0.5	10	500	74	88	16
9099	116	117	97	x	130	15	45	<0.5	<10	20	93	72	38
T9101	117	118	97	x	100	10	25	<0.5	<10	30	180	51	<10
9102	118	119	93	x	140	20	70	<0.5	<10	20	53	427	13
9103	119	120	93	x	75	10	30	<0.5	<10	30	11	96	10
9104	120	121	93	x	135	10	35	<0.5	<10	70	34	82	16
9105	121	123	100	x	205	<5	20	<0.5	60	<5	16	33	11
9106	123	125	100	x	150	5	20	<0.5	<10	<5	9	94	<10
9107	125	127	100	x	60	<5	30	<0.5	20	<5	9	58	33
9108	127	129	100	x	40	<5	10	<0.5	<10	<5	7	25	<10
9109	129	131	100	x	125	<5	15	<0.5	10	<5	9	58	<10
9110	131	133	100	x	300	<5	20	<0.5	10	170	8	168	17
9111	133	134.3	100	0.030	110	<5	30	<0.5	<10	170	10	151	67
ASSAY DETECTION				0.008	5	5	5	0.5	10	10	1	3	10
UNITS				PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM
METHOD ANALABS				309	103	103	103	103	103	103	114	401	401

X = LESS THAN 0.008

119

850119

GOLD FIELDS EXPLORATION PTY. LIMITED

DRILL CORE RECORD

HOLE NO. : ND-2
STATE : TAS

ULV. PRESS

PROJECT	NARRAWA
DESIGNED BY	R.H. ROBERTS
LOGGED BY	R.H. ROBERTS
COMMENCED	10.6.87
COMPLETED	18.6.87

PURPOSE

To test for gold mineralisation beneath Higgs Workings.

LOG SUMMARY

An interbedded sequence of quartzites and psammopelites with pelitic and calc-silicate hornfels. Pyrite occurs on microfractures throughout the core. Minor wolfram and chalcopyrite occurs in quartz-sericite-pyrite veins sub-parallel to the core axis.

GENERAL COMMENTS

ASSAY SUMMARY

INTERVAL From	INTERVAL To	Au	Cu	Pb	Zn	Ag	As	Bi						COMMENTS
102.9	114	0.15	166	58	100	<0.5	187	44						

LOCATION

NORTHING	5406738.6
EASTING	425451.8
R.L.	521.8
GRID	5850E 4940N
LENGTH	121.0m

HOLE CONDITION

SIZE Hole Size	SIZE Depth
HQ	121.0m

SIGNIFICANT CORE LOSS INTERVALS From	To	% Lost
0	2	No Core

POOR GROUND CONDITION ZONES From	To	Condition

HOLE CONDITIONS AFTER COMPLETION

2 Metres of HW Casing left in top of hole, All HQ rods removed. 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	199	-55°	0.0	14.5	14.5	11.88		8.32	
29.0	199	-53°	14.5	44.0	29.5	23.56		17.75	
59.0	199	-51.5°	44.0	74.0	30.0	23.48		18.68	
89.0	200	-51°	74.0	104.0	30.0	23.31		18.88	
119.0	201	-50°	104.0	121.0	17.0	13.02		10.93	
121.0				=E.O.H.					

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

850120

PROJECT: NARRAWA HOLE NO.: ND-2

GOLD FIELDS EXPLORATION PTY. LIMITED

DRILL HOLE PLOT

SCALE 1:1000

5 cm

600m R.L.

550m R.L.

450m R.L.

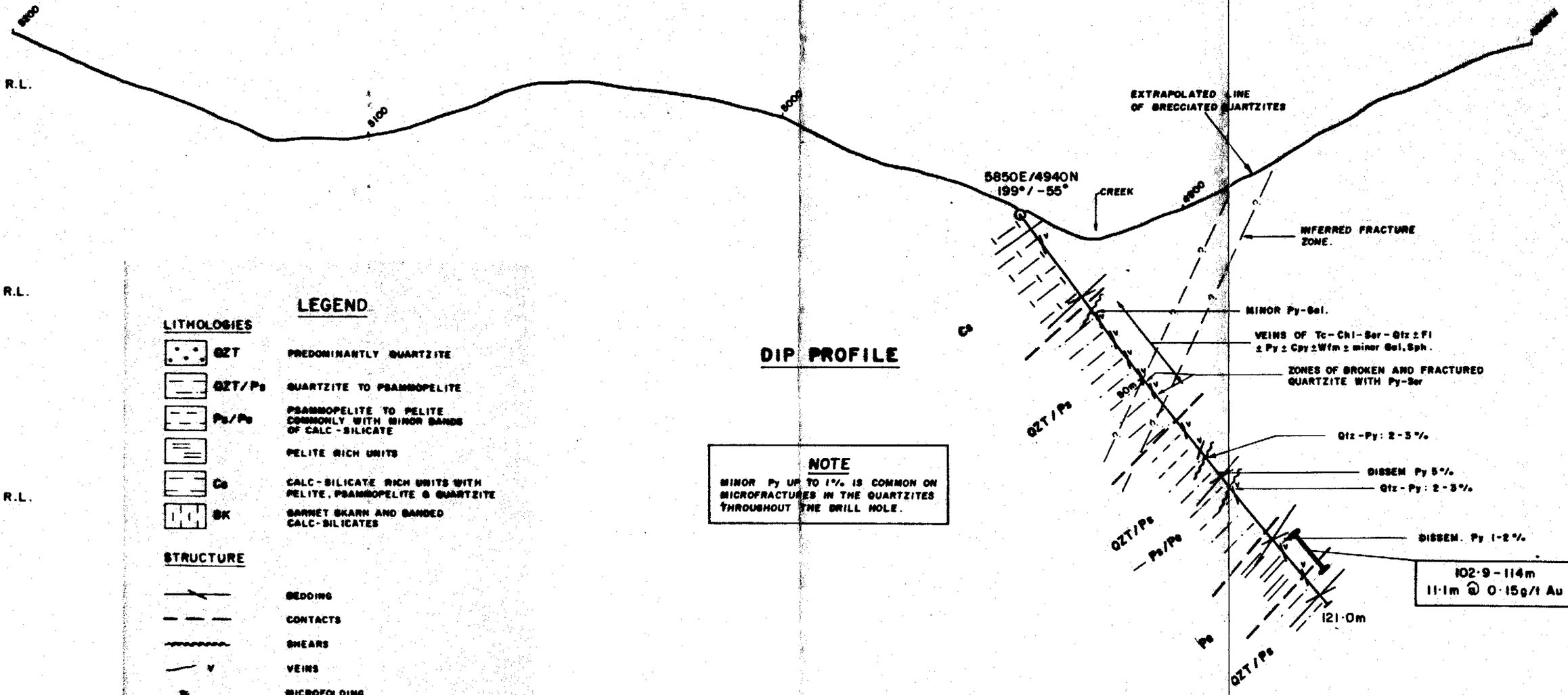
400m R.L.

020° MN

S 406 738·633 mN
425 451·759 mE

280° MN

PLAN VIEW



DIP PROFILE

NOTE

MINOR Py UP TO 1% IS COMMON ON MICROFRACTURES IN THE QUARTZITES THROUGHOUT THE DRILL HOLE.

LEGEND

LITHOLOGIES

	QZT	PREDOMINANTLY QUARTZITE
	QZT/Ps	QUARTZITE TO PSAMMOPELITE
	Ps/Pe	PSAMMOPELITE TO PELITE COMMONLY WITH MINOR BANDS OF CALC-SILICATE
		PELITE RICH UNITS
	Cs	CALC-SILICATE RICH UNITS WITH PELITE, PSAMMOPELITE & QUARTZITE
	SK	GARNET SKARN AND BANDED CALC-SILICATES

STRUCTURE

	BEDDING
	CONTACTS
	SHEARS
V	VEINS
	MICROFOLDING

FIG. 80

STATE: TAS.

HOLE NO: ND-2

850121

121

GOLD FIELDS EXPLORATION PTY. LIMITED

PROJECT:

DRILL CORE LOG AND ASSAY DATA

HOLE NUMBER: ND-2 Page:

INTERVAL From	INTERVAL To	RECOVERY m	RECOVERY %	DESCRIPTION
				SUMMARY LOG
				LITHOLOGY
0	2			No Core
2	27.1			Pelite, Psammopelite and Calc Silicate Hornfels.
27.1	63.0			Predominantly Quartzite and Sericite Quartzite.
63.0	97.0			Sericitic Quartzite with Bands of Psammopelite/Pelite/Calc-silicate Hornfels.
97.0	112.0			Laminated Pelite to Psammopelite with minor Bands of Calc-silicates.
112.0	121.0			Sericite Quartzite to Layered Quartzite.
				MINERALISATION
				Pyrite occurs in microfractures, typically sub-parallel to the core axis, throughout the core.
				Minor chalcopyrite, wolfram and sphalerite occur in quartz-sericite-pyrite-fluorite veins in the core. These veins are also typically sub-parallel to the core axis. A small pyrite-galena vein occurs at 30.8 metres.
				Patches of disseminated pyrite occur in the more pelitic units: e.g. at 79.6-80.6 metres and 100-102.9 metres.

ASSAY DATA Sample No.	From	To	Rec. %

850122

GOLD FIELDS EXPLORATION PTY. LIMITED

PROJECT:

DRILL CORE LOG AND ASSAY DATA

HOLE NUMBER: ND-2

122

INTERVAL		RECOVERY		DESCRIPTION	ASSAY DATA													
From	To	m	%		Sample No.	From	To	Rec. %	Au	Cu	Pb	Zn	Ag	Bi	Mo	As	Sn	W
0	2			NO CORE														
2	27.1			PELITE, PSAMMOPELITE AND CALC-SILICATE BEARING HORNFELS	T9149	2	4	30	x	35	140	135	1·0	<10	20	7	15	<10
2	6			Laminated pelite, biotite and cordierite bearing	9150	4	6	83	x	20	65	115	0·5	10	20	4	7	<10
				4.5 : Bedding/CA = 90°	9151	6	8	86	x	30	110	155	1·0	<10	30	10	21	<10
6	16			Calc-silicate bearing greywacke and quartzite	9152	8	10	90	x	40	60	135	<0·5	<10	10	8	30	52
				Min: minor disseminated pyrite	9153	10	12	100	x	15	120	105	0·5	<10	20	13	8	<10
				8.5: Vein of sericite-pyrite (-?amphibole). Vein/CA = 13°	9154	12	14	91	x	15	75	85	1·0	<10	10	7	24	<10
				12.6-12.8: Intense sericite alteration.	9155	14	16	87	x	20	395	180	1·0	<10	20	18	15	20
				13.5: Joint/CA = 12°	9156	16	18	100	x	20	105	130	0·5	<10	30	27	27	23
16	19			Quartzite, fractured with pyrite and sericite on fractures	9157	18	20	100	x	25	105	200	0·5	<10	20	10	25	<10
19	27.1			Calc-silicate bearing greywacke	9158	20	22	100	x	25	100	85	1·0	<10	10	15	14	<10
				Minor pyrite and sericite on fractures sub-parallel to the core axis	9159	22	24	100	x	20	90	110	1·0	<10	10	16	26	<10
				25-25.2: Pelitic unit, Bedding/CA = 83°	9160	24	26	100	x	50	80	70	1·0	<10	10	20	12	<10
27.1	63			PREDOMINANTLY QUARTZITE AND SERICITIC QUARTZITE	9161	26	27	100	x	40	170	160	1·0	<10	20	20	12	<10
				Pyrite in microfractures sub-parallel to the core axis (up to 1%).	9162	27	28	100	x	40	165	160	1·0	10	10	19	17	<10
				Quartz-pyrite-sericite-fluorite veins containing minor-wolfram and	9164	28	29	100	x	20	60	30	1·0	<10	20	13	5	<10
				chalcopyrite are common and typically occur sub-parallel to the core	9165	29	30	100	x	45	75	35	1·0	<10	20	19	11	<10
				axis.	T 9166	30	31	100	x	25	85	35	1·0	<10	50	13	12	<10
27.1	30.2			Sericitic quartzite, dendritic pyrite on-microfractures	9167	31	32	83	x	40	145	140	1·0	<10	10	15	5	<10
				29.5-30.2: Sheared sericitic fabric with boudins of quartz-pyrite	9168	32	33	83	0·010	85	175	130	1·0	<10	10	29	17	<10
				Shear fabric/CA = 67°	9169	33	34	83	x	65	70	50	1·0	<10	20	8	21	12
30.2	31.2			Quartzite, pyrite on fractures	9170	34	35	90	0·020	30	40	40	1·0	<10	<10	3	37	17
				30.8: Min: Small vein of pyrite-galena	9171	35	36	90	0·020	120	35	50	1·0	<10	30	54	30	24
				31.1: Quartz vein	9172	36	37	90	x	225	35	80	0·5	<10	30	64	29	22
31.2	34.8			Sericitic quartzite	9173	37	38	93	x	175	45	50	0·5	<10	10	26	20	125
				Quartz-pyrite-fluorite veins sub-parallel to core axis. Pyrite 2-3% in	9174	38	39	93	x	460	35	85	0·5	<10	10	88	64	42
				patches.	9175	39	40	93	x	300	45	80	1·0	20	40	30	69	42
34.8	35.1			Cordierite-bearing pelite with quartz veins.	9176	40	41	97	x	150	35	105	0·5	<10	10	19	61	30
35.1	38.0			Quartzite	9177	41	42	97	x	50	40	70	1·0	<10	30	24	42	56
				Quartz-pyrite-sericite in fractures sub-parallel to core axis.	9178	42	43	97	x	85	40	120	0·5	<10	20	35	50	72
				35.3-36: Broken core.	9179	43	44	93	x	150	45	70	1·5	<10	10	48	93	33
38	43			Psammopelite/quartzite	9181	44	45	93	x	110	100	105	1·0	<10	10	65	110	15
				38-40: Quartz-pyrite-sericite-fluorite veins with minor chalcopyrite	9182	45	46	93	0·020	165	65	70	1·0	10	10	340	79	21
				Veins sub-parallel to core axis.	9183	46	47	100	x	90	90	80	1·0	20	<10	21	36	13
				39-6: Quartz-chlorite-biotite vein: vein/CA = 30°	9184	47	48	100	x	65	45	70	0·5	<10	10	51	51	19
					9185	48	49	100	x	45	220	350	1·0	<10	<10	25	9	<10

GOLD FIELDS EXPLORATION PTY. LIMITED

850123

PROJECT: NARRAWA

DRILL CORE LOG AND ASSAY DATA

HOLE NUMBER: ND-2

123

INTERVAL From	INTERVAL To	RECOVERY m	RECOVERY %	DESCRIPTION	ASSAY DATA Sample No.	From	To	Rec. %	Au	Cu	Pb	Zn	Ag	Bi	Mo	As	Sn	W
43	49.8			Sericitic quartzite														
				Quartz-sericite-pyrite-fluorite veins sub-parallel to core axis.	T9186	49	49.8	93	X	50	65	180	1.0	<10	<10	12	14	<10
				Lenses of quartz-pyrite.	9187	49.8	50.7	93	X	220	80	265	6.0	1020	10	68	24	7670
				Microfractures with minor pyrite.	9188	50.7	52	93	X	250	100	70	2.0	200	10	64	17	21
49.8	50.7			Fractured and vuggy quartzite - Pyrite 2-3%	9189	52	52.9	100	X	70	35	30	1.0	30	20	57	28	27
				Quartz veining	9190	52.9	54.1	100	0.02	1100	1150	305	12.0	2750	10	96	24	8640
				50.2 Pyrite-sericite vein with wolfram, chalcopyrite and ? sphalerite	9191	54.1	55	100	X	80	60	60	1.5	<10	<10	51	18	31
				and ? galena	9192	55	56	83	X	20	55	35	1.0	<10	<10	39	<3	25
50.7	56.0			Quartzite	9193	56	57	83	X	20	40	35	1.0	<10	<10	51	<3	<10
				Microfractures sub-parallel to core axis with minor pyrite	9194	57	58	83	X	35	40	35	1.0	<10	<10	74	10	<10
				52.9-54.4: Major vein ½ - 2cm wide: Quartz-pyrite-sericite-fluorite-	9195	58	59	90	X	70	35	30	0.5	<10	<10	110	18	<10
				wolfram-chalcopyrite.	9196	59	60	90	X	25	45	50	1.0	<10	<10	59	8	<10
56.0	57.2			Fractured and brecciated quartzite, pyrite and sericite on fractures	9197	60	61	90	X	15	35	25	1.0	<10	<10	44	<3	<10
				56.6-57: Very broken core.	9198	61	62	100	X	40	35	35	1.0	<10	30	33	4	11
57.2	63.0			Quartzite	9199	62	63	100	X	35	55	45	1.0	<10	<10	28	18	<10
				Pyrite sheets (1-3mm wide) on fracture surfaces. Slickensides on	T9201	63	64	100	0.01	70	85	180	1.0	<10	10	24	124	17
				pyrite.	9202	64	65	93	0.01	125	75	125	0.5	<10	10	20	96	37
63.0	97.0			**SERICITIC QUARTZITE WITH BANDS OF PSAMMOPELITE/PELITE/**	9203	65	66	93	0.01	20	50	45	<0.5	<10	10	59	5	122
				CALC-SILICATE HORNFELS	9204	66	67	93	X	30	55	30	0.5	<10	<10	44	9	29
				Minor pyrite on microfractures	9205	67	68	100	X	25	30	20	0.5	<10	<10	38	9	21
63.0	64.7			Calc-silicate-bearing quartzite/greywacke	9206	68	69	100	X	20	45	20	<0.5	<10	40	38	<3	<10
				Disseminated pyrite and pyrite on microfractures (Py up to 1%)	9207	69	70	100	X	20	35	20	0.5	<10	<10	18	<3	10
64.7	79.6			Quartzite and sericitic quartzite	9208	70	71	100	X	25	30	25	<0.5	<10	60	10	9	<10
				67: Sericite-pyrite vein: vein/CA = 20°	9209	71	72	100	0.01	30	30	30	1.0	<10	20	10	16	<10
				72.7: Quartz-pyrite vein: vein/CA = 68°	9210	72	73	100	X	65	30	20	<0.5	<10	<10	9	4	<10
				74.1-74.7: Quartz within a sheared sericitic fabric (Pyrite 2-3%)	9211	73	74	100	X	55	45	25	0.5	<10	<10	11	33	10
				Shear fabric/CA = 65°	9212	74	75	100	X	170	75	60	0.5	<10	<10	15	90	16
				76-79: Patches of pebbly quartzite.	9213	75	76	100	X	35	50	25	0.5	<10	30	25	6	<10
				78-79.6: Pyrite rich.	9214	76	77	100	X	25	35	20	<0.5	<10	120	45	8	<10
79.6	82.4			Pelite to Psammopelite with bands of pebbly quartzite	9215	77	78	100	0.01	20	35	15	<0.5	<10	10	17	<3	<10
				79.6-80.6: Min: Pyrite up to 5% disseminated.	9216	78	79	100	0.01	55	45	35	<0.5	<10	20	20	19	<10
				80.3: Bedding/CA = 80°	9217	79	80	100	X	105	35	55	0.5	<10	20	12	74	<10
				82.4: Puggy fracture @ 42° to core axis.	9218	80	81	100	0.02	110	40	55	0.5	<10	10	39	76	<10
82.4	88.0			Quartzite	9219	81	82	100	X	175	40	60	0.5	<10	<10	20	32	11
				83.8-84.5: quartz-pyrite veins in a sheared sericitic matrix	9221	82	83	97	X	185	55	40	0.5	<10	<10	42	19	<10
				Sheared fabric/CA = 67°	9222	83	83.8	97	X	120	80	40	0.5	<10	10	16	20	<10

850124

GOLD FIELDS EXPLORATION PTY. LIMITED

PROJECT: NARRAWA

DRILL CORE LOG AND ASSAY DATA

HOLE NUMBER: ND-2

INTERVAL From	INTERVAL To	RECOVERY m	RECOVERY %	DESCRIPTION
				84.5-85.0: Quartz-sericite-pyrite vein: vein/CA = sub-parallel
				vein 3 mm wide.
				85.0-88.0: Pyrite in quartz-sericite-veins and in microfractures.
88.0	89.5			Brownish pelite/psammopelitic with minor calc-silicate patches.
				88.5 : Bedding/CA = 86°
89.5	91.9			Quartzite with dendritic pyrite on fractures.
91.9	94.4			Pelite and calc-silicate hornfels.
94.4	97			Quartzite
97	112			**LAMINATED PELITE TO PSAMMOPELITE WITH MINOR BANDS OF**
				CALC-SILICATES
97	100			Laminated pelite
				97.2 : Bedding/CA = 90°
				99.9 : Bedding/CA = 75°
				100 : Bedding/CA = 65°
100	102.9			Pelite/Psammopelite, disseminated pyrite (up to 1%)
102.9	104.3			Fractured quartzite, broken core.
104.3	106			Pelite/Psammopelite
				Quartz-pyrite-sericite vein (2-3mm wide): vein/CA = 20°
				Quartz-pyrite vein: vein/CA = 90°
106	109			Pelite and calc-silicates
				108: Bedding/CA = 75°
109	112			Laminated Pelite
				110: Bedding/CA = 90°
				111.3: Bedding/CA = 87°
112	121.0			**SERICITIC QUARTZITE TO LAYERED QUARTZITE**
112	115.4			Sericitic quartzite
				114.9 : Sericite-fluorite vein sub-parallel to core axis
115.4	118			Layered quartzite
				Layering/CA = 83°
118	121			Sericitic quartzite, pyritic patches.

ASSAY DATA

Sample No.	From	To	Rec. %	Au	Cu	Pb	Zn	Ag	Bi	Mo	As	Sn	W
79223	83·8	84·5	97	0·03	285	2000	1650	1·5	<10	10	31	99	12
79224	84·5	85·0	97	X	65	35	80	<0·5	<10	30	67	23	16
79225	85·0	86·0	100	X	70	40	35	0·5	<10	20	36	28	18
9226	86·0	87·0	100	X	110	60	45	1·0	10	<10	28	38	13
9227	87·0	88·0	100	X	120	100	145	0·5	<10	50	6	31	10
9228	88·0	89·0	100	0·01	120	415	710	2·0	<10	10	24	65	12
9229	89·0	90·0	100	0·06	165	55	85	1·0	<10	20	11	32	<10
9230	90·0	92·0	100	X	55	155	105	0·5	<10	40	8	14	<10
9231	92·0	94·0	100	X	70	75	100	<0·5	<10	70	34	57	10
9232	94·0	96·0	100	X	55	60	70	0·5	<10	10	17	38	<10
9233	96·0	98·0	100	0·01	60	60	585	0·5	<10	70	14	47	117
9234	98·0	100·0	100	0·03	45	75	140	1·0	<10	550	19	40	639
9235	100·0	102·0	100	0·05	245	45	80	0·5	40	10	87	140	90
9236	102·0	102·9	100	0·02	250	40	85	<0·5	<10	20	120	61	32
79237	102·9	104·3	100	0·12	110	55	50	<0·5	200	20	87	16	68
9238	104·3	106·0	100	0·08	240	60	135	<0·5	<10	<10	790	89	30
9239	106·0	108·0	100	0·20	440	65	155	1·0	80	10	260	134	<10
9240	108·0	110·0	100	0·18	140	75	155	0·5	10	<10	25	112	<10
9241	110·0	112·0	100	0·02	40	50	50	<0·5	<10	<10	20	14	10
9242	112·0	114·0	100	0·27	20	40	45	<0·5	<10	<10	17	33	20
9243	114·0	116·0	100	0·02	20	40	45	<0·5	<10	40	20	38	23
9244	116·0	118·0	100	0·03	55	40	40	<0·5	10	10	39	18	20
9245	118·0	120·0	100	0·02	50	45	30	<0·5	<10	<10	19	19	18
9246	120·0	121·0	100	0·02	60	40	20	<0·5	<10	<10	22	14	11
ASSAY METHOD	DETECTION (PPM) ANALABS			0·008	5	5	5	0·5	10	10	1	3	10
				309	103	103	103	103	103	103	114	401	401
				X = LESS THAN 0·008									

126

850125

HOLE NO.: ND-3

STATE: TAS

ULV. PRESS

GOLD FIELDS EXPLORATION PTY. LIMITED
DRILL CORE RECORD

PROJECT	NARRAWA
DESIGNED BY	R.H. ROBERTS
LOGGED BY	R.H. ROBERTS
COMMENCED	18.6.1987
COMPLETED	26.6.1987

PURPOSE

To test for gold mineralisation beneath Higgs Mine.

LOG SUMMARY

GENERAL COMMENTS

An interbedded sequence of quartzite, psammopelites and pelites with calc-silicate-rich units including garnet skarn occurring in the top 50 metres of the hole. A highly brecciated and pyrite-sericite altered zone of quartzites occurs from 55.5 to 66.5 metres. A base-metal sulphide-rich zone occurs from 110.2 to 113.5 metres.

ASSAY SUMMARY

INTERVAL From	INTERVAL To	Au (ppm)	Cu	Pb	Zn	Ag	As							COMMENTS
16	20	0.50	199	1944	263	5.1	6							
110.2	116.5	0.16	449	9070	7071	11.6	60							
120.5	123.5	0.16	48	20	152	<0.5	24							

LOCATION

NORTHING	5406694.0
EASTING	425535.0
R.L.	513.8
GRID	4950N 5950E
LENGTH	128.5m

HOLE CONDITION

SIZE Hole Size	SIZE Depth
HQ	128.5m

SIGNIFICANT CORE LOSS INTERVALS From	To	% Lost
0	2	No Core
22.8	23.15	50%

POOR GROUND CONDITION ZONES From	To	Condition
55.5	66.5	Broken Ground

HOLE CONDITIONS AFTER COMPLETION

3 Metres of HW Casing left in top of hole.
All HQ rods removed. 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	200°	-50°	0.0	15.75	15.75	12.07		10.12	
31.5	200°	-47.5°	15.75	46.50	30.75	22.67		20.77	
61.5	200.5°	-46.25°	46.50	79.50	33.0	23.84		22.82	
97.5	201	-44.25°	79.50	112.50	33.0	23.03		23.64	
127.5	201	-43.25°	112.50	128.50	16.0	10.96		11.65	
128.5		=E.O.H.		=E.O.H.					

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

850126

PROJECT: **NARRAWA** HOLE NO.: **ND-3**

GOLD FIELDS EXPLORATION PTY. LIMITED

DRILL HOLE PLOT

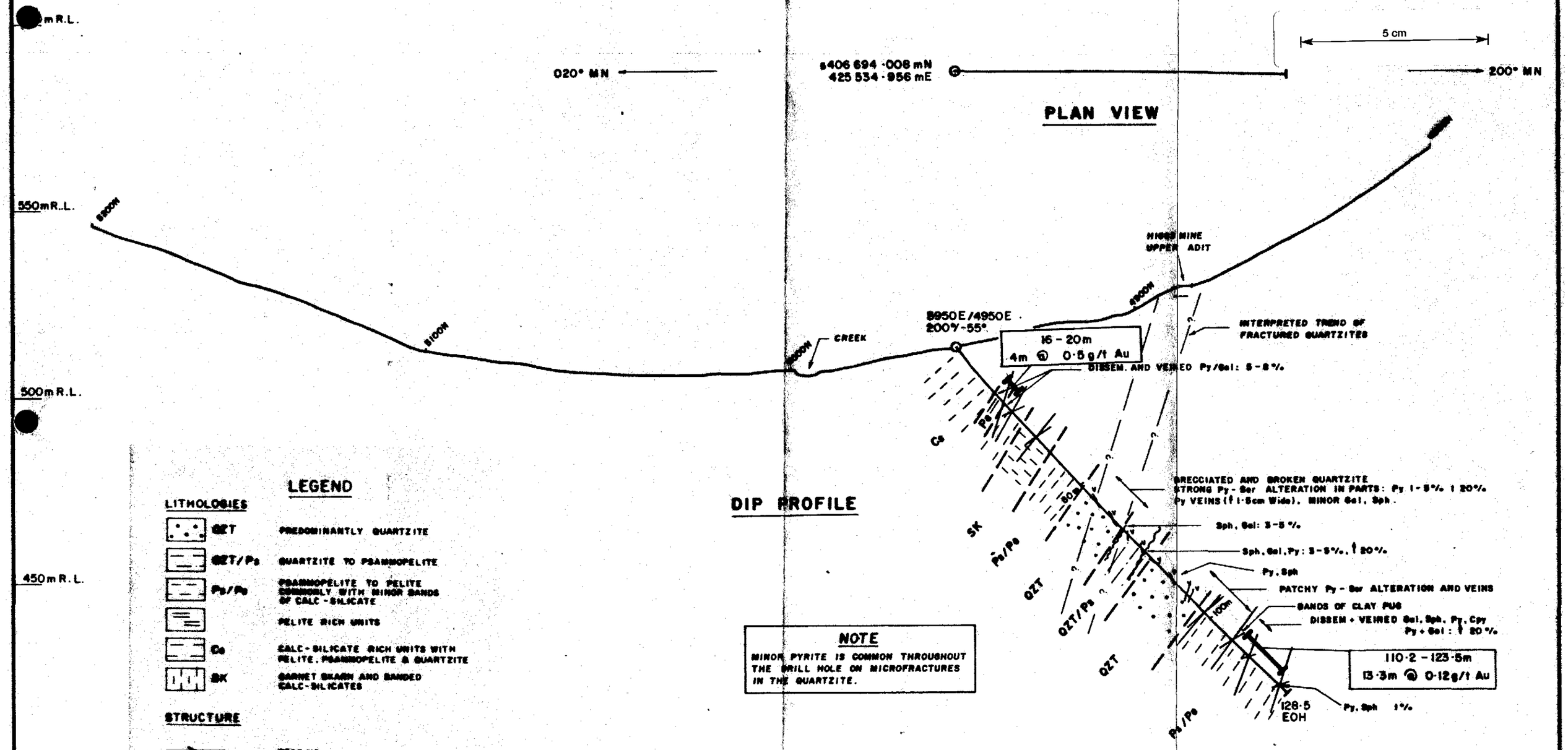
SCALE 1: 1000 — 30 10 0 20 40 METRES

5 cm

020° MN ← → 200° MN

s406 694 ·008 mN
425 534 ·956 mE

PLAN VIEW



LEGEND

LITHOLOGIES

QZT	PREDOMINANTLY QUARTZITE
QZT/Ps	QUARTZITE TO PSAMMOPELITE
Ps/Pe	PSAMMOPELITE TO PELITE COMMONLY WITH MINOR BANDS OF CALC-SILICATE
	PELITE RICH UNITS
Cs	CALC-SILICATE RICH UNITS WITH PELITE, PSAMMOPELITE & QUARTZITE
SK	GARNET SKARN AND BANDED CALC-SILICATES

STRUCTURE

	BEDDING
	CONTACTS
	SHEARS
V	VEINS
	MICROFOLDING

DIP PROFILE

NOTE

MINOR PYRITE IS COMMON THROUGHOUT THE DRILL HOLE ON MICROFRACTURES IN THE QUARTZITE.

FIG. 51

STATE: TAS.

HOLE NO: ND-3

127

850127

GOLD FIELDS EXPLORATION PTY. LIMITED

PROJECT:

DRILL CORE LOG AND ASSAY DATA

HOLE NUMBER: ND-3 Page: 128

INTERVAL From	INTERVAL To	RECOVERY m	RECOVERY %	DESCRIPTION	ASSAY DATA Sample No.	From	To	Rec. %
				SUMMARY LOG				
				LITHOLOGY				
0	3			No Core				
3	16			Psammopelite to quartzite with calc-silicate patches.				
16	20			Pelite to Psammopelite				
20	26.8			Psammopelite with calc-silicate lenses.				
26.8	38			Banded Calc-silicate hornfels and garnet skarn.				
38	51.2			Psammopelite/Pelite with Calc-silicate patches.				
51.2	65.4			Quartzite				
65.4	77.2			Psammopelite to sericitic quartzite				
				55.5-66.5 : Major zone of brecciation - broken core				
77.2	96			Quartzite				
96	128.5			Quartzite/Psammopelite/Pelite with minor Calc-silicates				
				MINERALISATION				
				Minor pyrite occurs on microfractures throughout the drill hole.				
16	20			Disseminated pyrite and base-metal mineralisation in patches up to				
				5-10%				
55.6	65.4			Disseminated and veined pyrite. Pyrite up to 20% in parts.				
66.3	66.5			Mineralised sericitic shear - galena and sphalerite : 3-5%				
73.1	74.6			Anastomosing veins of galena/sphalerite/pyrite : 5-6%				
110.2	113.5			Veined and disseminated sulphides in psammopelite/pelite				
				110.2-110.6 : Pyrite 5%, galena 1-2%				
				110.6-111.3 : Pyrite 1%				
				112.5-113 : Semi-massive sulphide				
				Pyrite 10%, galena 10%, minor sphalerite and chalcopyrite				
				113-113.4 : Pyrite, galena, sphalerite up to 5%				
				113.4-113.5: Pyrite - chalcopyrite veining (up to 10% sulphide)				

850128

129

GOLD FIELDS EXPLORATION PTY. LIMITED

PROJECT: NARRAWA

DRILL CORE LOG AND ASSAY DATA

HOLE NUMBER: ND-3 Page: 1

INTERVAL From	INTERVAL To	RECOVERY m	RECOVERY %	DESCRIPTION	Sample No.	From	To	Rec. %	ASSAY DATA Au	Cu	Pb	Zn	Ag	Bi	Mo	As	Sn	W
0	3			NO CORE														
3	16			**PSAMMOPELITE to QUARTZITE WITH PATCHES OF CALC-SILICATES**	T 9272	3	5	87	X	45	145	115	<0.5	<10	110	6	<3	<10
					T9273	5	7	87	X	30	100	155	<0.5	<10	110	12	7	<10
				Oxidised and partially oxidised	T9274	7	9	50	X	40	190	150	<0.5	10	105	9	15	<10
				Minor disseminated pyrite and pyrite on fractures	T9275	9	11	75	X	45	70	180	<0.5	<10	110	10	31	<10
				Parts of the core badly broken	T9276	11	13	90	X	40	50	150	<0.5	<10	85	15	12	<10
				15.5-16.0 : Soft pale-green section (? altered pelite/calc-silicate)	T9277	13	15	77	X	125	80	110	<0.5	<10	100	12	18	22
16	20			**PELITE TO PSAMMOPELITE**	T9278	15	16	77	X	295	110	1850	<0.5	<10	70	8	93	<10
16	16.5			Pelite to Psammopelite	T9279	16	17	93	1.17	255	4900	400	11.3	20	90	5	159	19
				Min: Disseminated base metals - galena/pyrite: 5-10%	T9281	17	18	93	0.01	20	225	110	<0.5	<10	50	9	30	17
				Layering in sulphide - layering/CA = 58°	T9282	18	19	93	0.58	185	2000	175	6.0	20	90	4	44	<10
16.5	18.3			Psammopelite, minor pyrite	T9283	19	20	93	0.23	335	650	365	2.5	20	90	6	74	<10
				17.7: Biotite layers/CA = 48°														
18.3	20			Pelite/Psammopelite with calc-silicate lenses														
				18.7-19: Min: Disseminated Pyrite-Galena : 5-8%														
				19-19.3: Min: Patchy Pyrite : up to 5%														
				19.8-20: Min: Pyrite : up to 5%														
				19.9: Bedding/CA = 59°														
				20: Bedding/CA = 52°														
20	26.8			**PSAMMOPELITE WITH CALC-SILICATE LENSES**														
20	22.8			Psammopelite, minor pyrite	T9284	20	21	93	X	125	120	80	<0.5	<10	90	4	8	11
22.8	23.2			Soft puggy greenish zone (? altered pelite calc-silicate)	T9285	21	22	93	X	100	85	55	<0.5	<10	90	6	26	<10
				0.15 metres of core loss.	T9286	22	23	100	X	195	60	115	<0.5	<10	80	11	89	222
23.2	24			Pelite/Calc-silicate, 23.7-24: puggy zone	T9287	23	24	100	X	30	75	255	<0.5	<10	40	6	170	<10
24	26.8			Psammopelite	T9288	24	25	100	X	25	45	45	<0.5	<10	90	8	<3	<10
26.8	38			**BANDED CALC-SILICATE HORNFELS AND GARNET SKARN**	T9289	25	26	93	X	40	45	50	<0.5	10	70	5	3	<10
26.8	28			Dark green amphibole-rich calc-silicate	T9290	26	27	93	X	320	60	70	<0.5	10	100	17	25	13
				Fractures contain amphibole - fractures/CA = 25-45°	T9291	27	28	93	0.10	105	105	310	<0.5	<10	40	6	194	43
28	31			Garnet (Grossular/Andradite) - rich bands within banded calc-silicates.	T9292	28	29	100	0.04	30	70	495	<0.5	<10	10	5	314	106
				Banding varies from pale green to dark green in colour	T9293	29	30	100	0.06	20	90	380	<0.5	30	30	9	958	90
				29.1 : Garnet band/CA = 69°	T9294	30	31	100	0.03	15	80	425	<0.5	20	30	9	607	<10
				30.4 : Garnet band/CA = 70°	T9295	31	32	100	X	10	75	200	<0.5	<10	30	11	484	<10
31	34			Banded Calc-silicates. Reaction banding around pelite lenses.	T9296	32	33	100	X	15	100	200	<0.5	<10	40	14	292	<10
				Minor garnet bands.	T9297	33	34	100	0.04	15	125	275	<0.5	<10	60	16	244	<10
				32: Reaction bands (bedding)/CA = 82°														

GOLD FIELDS EXPLORATION PTY. LIMITED

850129

130

PROJECT: NARRAWA

DRILL CORE LOG AND ASSAY DATA

HOLE NUMBER: ND-3 Page: 2

INTERVAL From	INTERVAL To	RECOVERY m	RECOVERY %	DESCRIPTION	ASSAY DATA Sample No	From	To	Rec. %	Au	Cu	Pb	Zn	Ag	Bi	Mo	As	Sn	W
				33-33.1: Coarse garnet porphyroblasts up to ½ cm in diameter.														
				33.6: Fine banding/bedding/CA = 76°														
34	35.2			Garnet skarn	T9298	34	35	93	0.42	30	85	385	<0.5	<10	30	52	1180	<10
35.2	38			Green banded calc-silicate.	T9299	35	36	93	0.03	30	100	340	<0.5	<10	30	10	576	<10
				35.8-36: Pelite lense.	T9301	36	37	93	0.01	215	65	295	<0.5	<10	40	8	335	54
38	51.2			**PSAMMOPELITE/PELITE WITH CALC-SILICATE PATCHES**	T9302	37	38	100	0.01	100	75	280	<0.5	<10	60	10	318	15
38	41			Biotite Hornfels.	T9303	38	39	100	X	35	45	85	<0.5	<10	80	7	124	<10
41	45			Psammopelite with calc-silicate lenses.	T9304	39	40	100	X	15	10	55	<0.5	<10	70	2	29	<10
45	46.3			Quartzite	T9305	40	41	93	X	15	40	55	<0.5	<10	60	2	26	10
46.3	51.2			Psammopelite with calc-silicate lenses.	T9306	41	42	93	X	20	30	50	<0.5	<10	60	21	30	26
51.2	65.4			**QUARTZITE**	T9307	42	43	93	X	45	65	110	<0.5	<10	80	8	69	<10
				55.5 - 65.4: The Quartzite is strongly brecciated and fractured,	T9308	43	44	100	X	55	65	100	<0.5	<10	90	8	59	<10
				and in parts strongly mineralised by pyrite.	T9309	44	45	100	X	95	65	105	0.5	40	80	7	65	<10
51.2	55.5			Quartzite	T9310	45	46	100	X	50	15	35	<0.5	<10	120	35	15	23
				51.2-52: Quartz veins - vein/CA = 57°	T9311	46	47	100	X	100	40	55	<0.5	20	130	8	37	20
				Pyrite on fractures, fractures/CA = 17°	T9312	47	48	100	X	170	40	95	<0.5	20	140	21	56	20
55.5	56.5			Brecciated/fractured quartzite, sericite-pyrite on fractures -	T9313	48	49	100	X	60	40	70	1.0	<10	90	5	27	<10
				Broken core.	T9314	49	50	100	X	35	55	70	1.0	<10	120	9	36	18
				55.5-55.6: 1½cm wide pyrite vein with breccia fragments of quartzite	T9315	50	51	100	X	15	40	55	<0.5	<10	110	5	6	<10
				vein/CA = 23°	T9316	51	52	100	X	40	75	105	1.5	<10	120	12	49	30
56.5	57.5			Psammopelite with quartz veins.	T9317	52	53	97	X	100	30	85	1.0	<10	130	29	35	24
57.5	57.65			Puggy sericite seams in quartzite - broken core	T9318	53	54	97	X	20	35	50	1.0	<10	80	25	14	16
57.65	58			Quartzite with dendritic pyrite	T9319	54	55.5	97	X	40	75	85	<0.5	<10	110	56	23	21
58	59.5			Bleached quartzite with disseminated pyrite (1%)														
59.5	62.9			Bleached quartzite with dendritic pyrite	T9321	55.5	56.5	100	X	30	130	75	<0.5	<10	100	250	3	11
				61-62.9:Fracture (2-3mm wide) with pyrite, fracture sub-parallel	T9322	56.5	57.5	100	X	115	180	230	0.5	10	120	110	37	33
				to core axis	T9323	57.5	58.5	100	X	80	2300	2100	3.5	<10	120	52	118	28
62.9	64			Pyritic bleached quartzite, pyrite disseminated and on fractures	T9324	58.5	59.5	97	X	125	6700	6300	10.0	10	140	89	199	17
				(2-3%) - quartz veins.	T9325	59.5	60.5	97	X	90	3500	3700	6.0	<10	80	91	100	68
				63.5-63.7: Min: Fractured vuggy texture with disseminated pyrite	T9326	60.5	61.5	97	X	35	3200	2050	4.0	10	110	27	103	42
				and possibly base metals. Pyrite: 2-3% with minor galena and	T9327	61.5	62.5	97	X	20	315	67	<0.5	<10	110	110	40	27
				sphalerite.	T9328	62.5	63.5	97	X	75	210	1100	<0.5	<10	160	340	108	24
				62.9-63.3: Pyrite vein (3mm wide) sub-parallel to the core axis.	T9329	63.5	64.5	97	X	245	1650	1950	3.5	<10	100	550	235	29
64	65.4			Broken core.	T9330	64.5	65.5	97	X	250	185	1200	0.5	<10	120	790	60	28
				Fractured and bleached quartzite - sericitic alteration.														
				Min: Pyrite rich in fractures, typically 1-5% ranging up to 20%.														

850130

131

GOLD FIELDS EXPLORATION PTY. LIMITED

PROJECT: NARRAWA

DRILL CORE LOG AND ASSAY DATA

HOLE NUMBER: ND -3 Page: 3

INTERVAL From	INTERVAL To	RECOVERY m	RECOVERY %	DESCRIPTION	ASSAY DATA Sample No.	From	To	Rec. %	Au	Cu	Pb	Zn	Ag	Bi	Mo	As	Sn	W
				64.7: Pyrite layering/CA = 53°														
				65.4: Pyrite vein/CA = 29°														
65.4	77.2			**PSAMMOPELITE TO SERICITIC QUARTZITE**	T9331	65·5	66·5	97	X	170	6550	7350	9·0	30	100	76	67	27
				65.4 - 66.5 Fractured and broken core	T9332	66·5	67·5	97	X	20	200	150	<0·5	<10	100	12	89	20
65.4	66.5			Psammopelite, fractured and sericite altered	T9333	67·5	68·5	97	X	115	205	300	<0·5	<10	70	38	53	29
				66.3-66.5: Sericitic shear with sulphides	T9334	68·5	69·5	97	X	70	1400	2800	1·5	<10	90	54	63	17
				Min: Galena and sphalerite - 3-5%	T9335	69·5	70·5	97	X	40	150	110	<0·5	<10	90	62	16	22
				66.4: Shear/CA = 76°	T9336	70·5	71·5	100	X	50	130	875	<0·5	20	110	61	49	22
66.5	73.5			Quartzite/Psammopelite, sericitic patches, disseminated pyrite: 1-2%	T9337	71·5	72·5	100	X	25	185	200	<0·5	<10	80	28	51	59
73.5	74.6			Layered Quartzite/Psammopelite with sulphides - Layering/CA = 69°	T9338	72·5	73·5	100	X	105	2300	3750	6·5	10	90	46	32	38
				73.1-74.1: Min: Anastomosing thin veins of galena, pyrite, sphalerite	T9339	73·5	74·6	100	X	410	13000	9900	27·0	30	110	58	227	27
				(2-3%)	T9341	74·6	75·5	100	0·01	115	860	1100	2·0	<10	90	110	162	38
				74.1-74.4: Min: Vein with coarse sulphides-galena and pyrite	T9342	75·5	76·5	100	X	90	290	265	<0·5	<10	80	75	28	23
				74.4-74.5: Min: Veins of galena/pyrite/sphalerite in sericitic quartzite	T9343	76·5	77·5	100	X	80	95	160	<0·5	10	90	230	97	62
				(up to 20% sulphides).														
				74.5-74.6: Min: Disseminated pyrite and galena (5-6%)														
74.6	77.2			Sericitic Quartzite, lenses of pyrite - sericite (pyrite 1%)														
77.2	96			**QUARTZITE**														
				Quartz-pyrite-sericite-fluorite common	T9344	77·5	78·5	100	X	45	90	105	<0·5	<10	70	42	32	16
77.2	91			Quartzite	T9345	78·5	79·5	100	X	50	60	40	<0·5	<10	80	100	17	<10
				77.2-79: ½ cm wide quartz-pyrite-sericite vein	T9346	79·5	80·5	100	X	45	65	55	<0·5	10	70	83	41	29
				85.6-86.0: quartz-pyrite-sericite vein sub-parallel to core axis	T9347	80·5	81·5	100	X	35	10	40	<0·5	10	80	110	26	16
				90.8 : quartz-pyrite-sericite-fluorite-vein, vein/CA = 65°	T9348	81·5	82·5	100	X	45	20	50	<0·5	<10	50	39	37	13
91	96			Quartzite with patchy sericitic alteration	T9349	82·5	83·5	93	X	100	65	50	<0·5	<10	80	70	18	<10
				91.35-91.45: vuggy pyrite-sericite shear	T9350	83·5	84·5	93	X	35	120	175	<0·5	<10	80	90	7	<10
				91.3-92.4: Pyrite-sericite-fluorite vein, vein sub-parallel to core axis	T9351	84·5	85·5	93	X	70	55	75	<0·5	<10	90	110	21	13
				92.4-92.7: Shear with quartz-pyrite-sericite, shear/CA = 81°	T9352	85·5	86·5	97	X	220	400	2800	1·0	20	80	110	53	51
96	128.5			**QUARTZITE/PSAMMOPELITE/ PELITE WITH MINOR PATCHES OF**	T9353	86·5	87·5	97	X	85	20	40	0·5	20	80	39	33	11
				CALC-SILICATES	T9354	87·5	88·5	97	X	70	10	30	0·5	10	80	44	19	10
96	109.0			Quartzite/Psammopelite	T9355	88·5	89·5	100	X	80	25	40	<0·5	<10	80	95	4	<10
				96.35-96.45: Pelite band with pyrite.	T9356	89·5	90·7	100	0·01	100	30	25	0·5	<10	90	320	13	<10
				97.1-100.0: Pebbly quartzite bands.	T9357	90·7	91·7	100	0·49	225	80	40	2·0	340	90	240	40	53
				100: Bedding/CA = 86°	T9358	91·7	92·8	97	0·03	145	80	70	1·0	30	80	90	46	25
				102.3-102.6: Vuggy pyrite-sericite alteration	T9359	92·8	94·5	97	X	45	40	45	<0·5	<10	70	85	17	<10
				103-106: Patchy vuggy pyrite-sericite alteration.	T9360	94·5	95·5	97	X	70	75	125	<0·5	<10	80	49	19	<10
					T9361	95·5	96·5	100	X	130	80	555	<0·5	<10	90	67	46	<10

850131

GOLD FIELDS EXPLORATION PTY. LIMITED

PROJECT: NARRAWA

DRILL CORE LOG AND ASSAY DATA

HOLE NUMBER: ND-3

INTERVAL From	INTERVAL To	RECOVERY m	RECOVERY %	DESCRIPTION	Sample No.	From	To	Rec. %	Au	Cu	Pb	Zn	Ag	Bi	Mo	As	Sn	W
				106.3-106.4: Pyrite-sericitic alteration	T9362	96.5	97.5	100	0.01	225	70	260	<0.5	<10	90	39	224	23
				107.3: 10 cm pug clay zone	T9363	97.5	98.5	100	0.02	215	1900	2700	5.5	40	70	47	331	28
				108.8: clay-sericitic-fluorite pug	T9364	98.5	99.5	100	X	180	145	410	<0.5	10	60	44	44	16
				108: Bedding/CA = 80°	T9365	99.5	100.5	100	X	110	675	1600	1.0	10	80	52	64	18
109	110.2			Psammopelite	T9366	100.5	101.5	97	X	75	280	305	0.5	<10	90	73	23	26
				109.7-109.9: Greenish clay pug.	T9367	101.5	102.3	97	X	65	130	170	0.5	10	70	69	12	12
110.2	113.5			PSAMMOPELITE/PELITE WITH VEINED AND DISSEMINATED	T9368	102.3	103.3	97	X	60	110	150	<0.5	<10	90	51	27	25
				SULPHIDES	T9369	103.3	104.6	100	0.01	120	150	970	<0.5	<10	100	94	128	30
				110.2-110.6: Min: Disseminated and veined pyrite and galena in	T9370	104.6	106	100	X	230	50	930	<0.5	10	80	40	69	26
				psammopelite	T9371	106	107	100	0.15	185	95	860	<0.5	10	90	57	24	18
				- Pyrite 5%, Galena 1-2%	T9372	107	108	97	0.05	215	100	320	<0.5	<10	60	140	48	24
				110.6-111.3: Pyrite sericite-clay alteration - Pyrite up to 1%	T9373	108	109	97	X	235	85	305	<0.5	10	40	44	60	19
				111.3-112.2: Dark green pelite/psammopelite with calc-silicate patches	T9374	109	110.2	100	0.09	255	510	1050	0.5	<10	50	66	56	21
				112.2-112.5: Psammopelite/pelite														
				112.5-113 : Min: Semi-massive sulphide - Coarse sulphides in veins and														
				patches plus finely disseminated sulphide.	T9375	110.2	110.6	100	0.39	1050	4000	7100	14.0	70	50	31	63	<10
				- Pyrite, galena and lesser sphalerite, chalcopyrite	T9376	110.6	111.5	100	0.01	150	295	800	<0.5	<10	30	31	381	20
				Pyrite 10%, Galena 10%	T9377	111.5	112.5	100	0.01	220	485	720	1.0	10	20	16	79	13
				113-113.4 : Sulphide-rich psammopelite	T9378	112.5	113.5	100	0.62	1000	53000	38000	62.0	30	70	34	73	<10
				- Min: Patchy pyrite, galena, sphalerite (up to 5%)														
				113.4-113.5: Coarse sulphide veining in Psammopelite	T9379	113.5	114.5	100	0.06	170	1400	1900	3.0	10	40	37	27	37
				Min: Pyrite, chalcopyrite up to 10%	T9381	114.5	115.5	100	0.07	305	190	145	<0.5	<10	120	50	27	<10
113.5	118.0			Bedded Psammopelite to Pelite	T9382	115.5	116.5	100	0.11	580	200	220	<0.5	50	80	200	23	69
				114-114.5: Cordierite - bearing pelite	T9383	116.5	117.5	100	0.04	55	195	275	0.5	<10	70	44	11	32
				114: Bedding/CA = 65°	T9384	117.5	118.5	100	0.03	35	65	60	<0.5	20	70	26	8	31
				114: Quartz-Pyrite vein	T9385	118.5	119.5	100	0.05	80	40	75	<0.5	<10	90	15	11	81
				116.5: Bedding/CA = 63°	T9386	119.5	120.5	100	0.03	20	30	75	<0.5	20	40	24	17	23
118.0	128.5			Psammopelite to Quartzite	T9387	120.5	121.5	100	0.18	25	25	190	<0.5	<10	20	17	35	34
				123.1-123.5: Green calc-silicate and pebbly quartzite, disseminated pyrite	T9388	121.5	122.5	100	0.13	60	15	105	<0.5	<10	20	33	23	34
				≈1%.	T9389	122.5	123.5	100	0.17	60	20	160	<0.5	40	40	22	26	21
				123.5: Bedding/CA = 63°	T9390	123.5	124.5	100	X	20	10	90	<0.5	<10	10	32	10	90
				125 : Bedding/CA = 63°	T9391	124.5	126.0	97	X	25	25	110	<0.5	<10	10	24	13	69
				126-127: Disseminated and veined sulphides (≈1% pyrite, sphalerite)	T9392	126.0	127.0	97	0.06	500	510	5900	8.0	80	80	14	20	26
					T9393	127.0	128.5	100	X	150	55	65	0.5	<10	80	32	39	21
					ASSAY	DETECTION (PPM)			0.008	5	5	5	0.5	10	10	1	3	10
					METHOD	ANALABS			309	103	103	103	103	103	103	114	401	401

X = LESS THAN 0.008

Appendix 5

Petrological report by C.M.S.

134

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GOLD FIELDS EXPLORATION PTY. LIMITED
(Incorporated in N.S.W.)
Division of Renison Goldfields Consolidated Limited

HEAD OFFICE:
GOLD FIELDS HOUSE,
SYDNEY COVE, SYDNEY.
N.S.W. 2000.
TELEPHONE: 2 0512
TELEX: AA20373

TASMANIAN OFFICE
53 MAIN ROAD
WIVENHOE
BURNIE 7320
Telephone (004) 31 7711
Telex GFEL AA 59301
Address all correspondence to
P.O. Box 835
BURNIE 7320
TASMANIA

RHR/9518/3

August 12th, 1987

Mr. H.W. Fander,
Central Mineralogical Services,
39 Beulah Road,
NORWOOD S.A. 5067

Dear Wally,

Please find enclosed twenty-two rock slabs for petrological examination. These samples are from our Narrawa Licence in Northern Tasmania, located within the contact aureole of the Dolcoath Granite. The Dolcoath Granite intrudes both Cambrian volcanics and Ordovician sediments, and is spatially associated with Sn, W, Mo, Bi, Pb, Zn, Ag and Au mineralisation. We are investigating the gold potential of the area.

Ten samples are included from the surface and drill core in the vicinity of the old Higgs gold mine, where gold and base-metal mineralisation occurs in apparently sheared Moina quartzite. Two samples are from the Narrawa Reward gold mine, 200 metres north of Higgs. Four examples of skarn and six samples of porphyries are also included for petrological examination. Both thin and polished sections will probably be required, and more than one section may need to be cut to locate gold in the known gold-rich rocks. Please describe the mineral paragenesis in each sample with special reference to gold, and note the grainsize of any gold identified in section.

1. HIGGS MINE AREA

Gold values greater than 10g/t Au have been obtained in surface sampling of both oxidised and sulphide-bearing rocks within the Higgs gold mine area. Several cored holes have been drilled beneath the workings, and although pyrite and base-metal mineralisation has been intersected within quartzite, gold values have generally been less than 1g/t Au. Samples T6057, 58 and 59 are from the oxidised zone, T3532, T4788, T6055 and 56 are from the sulphide-bearing zone, and T4591, 93 and 94 from drill core. We are interested in finding out if there is petrological evidence to correlate mineralisation in the workings with that down-hole, and whether there is any evidence of secondary enrichment in the oxidised and sulphide-bearing mineralisation at surface compared to the sulphide-bearing samples in core. Brief hand sample descriptions are given below, and gold assays where known are given in brackets.

(1) Sulphide-Bearing Samples From Surface

T3532 (18.3g/t Au)
T4788 (N.A.)
T6055 (N.A.)

: Disseminated sulphides in quartzites, and in recrystallised(?) vuggy quartz layers. Grains within the quartz layers are typically pebble size and sub-rounded. Please comment on the nature of the pebbly quartz layers; i.e. are they original coarse-grained layers or recrystallised layers resulting from possible shearing and metasomatism?

T6056 (8.2g/t Au) : Pyrite-galena veining in quartz (silicified quartzite?).

2. Oxidised Samples

T6057 (9.2g/t Au) : Vuggy quartz-limonite vein in quartzite.

T6058, T6059 (>30g/t Au) : Limonitic fractured quartzite. Minute grains of gold appear to be visible within the limonitic fractures.

3. Core Samples

T4591-Hole ND1, 61m (<0.1g/t Au) : From a strongly fractured and vuggy pyritic quartzite thought to be the down-dip equivalent of the gold-bearing quartzites at surface (e.g. T6058, 59).

T4593-Hole ND-3, 66.4m (<0.008g/t Au) : Quartz-galena veining in an apparently sheared and altered quartzite. Please comment on the evidence of shearing in the rock and how it is related to the mineralisation.

T4594-ND-3, 110.4m (0.6g/t Au) : Base-metal vein and disseminated mineralisation in pelite.

2. NARRAWA REWARD GOLD MINE

T691 (22.0g/t Au) : Silicified quartzite with pyritic veining

T4791 (N.A.) : Pyrite and base-metal mineralisation in silicified sandstone.

Please compare this type of mineralisation with that in the Higgs mine area.

3. SKARNS

T4888, T4889 (20-30g/t Au) : Skarns from the Stormont Au-Bi mine, approximately 8 km west of the outcropping Dolcoath Granite.

T4592-ND-3, 34.5m (0.4g/t Au) : Skarn from drilling beneath Higgs mine.

T4700 (0.7g/t Au) : Magnetite skarn sampled from the Narrawa grid.

Please describe and compare the skarn assemblages with particular reference to any presence of gold, and comment if possible on the gold-bearing potential of the lower grade skarns (T4592, T4700) relative to the skarns at Stormont.

4. PORPHYRIES

T4890 : Quartz-feldspar porphyry on the Narrawa grid. Considered to be an intrusive Devonian porphyry consanguineous with the Dolcoath Granite.

T4792 (0.2-0.8g/t Au) : Porphyritic sample from the Narrawa adit, with coarse quartz grains in a sheared and altered (pyritic) matrix - ?Devonian.

T4590-DG1-145.5m (0.3g/t Au) : Sheared and mineralised porphyry? - ?Devonian.

T6023 (0.2g/t Au) : Possibly an oxidised equivalent of mineralised porphyry-?Devonian.

T3519, T3522 (0.01, 1g/t Au respectively) : Considered to be altered and mineralised Cambrian porphyry.

Please describe and compare the various porphyries, commenting on the possible timing relationships between emplacement of the porphyries, deformation and mineralisation. Is the style of mineralisation in the Cambrian porphyries similar to that in the Devonian rocks?

If there are any queries relating to the above work, please contact Ray Roberts at our Burnie office.

Regards,

P.A. Roberts
Senior Regional Geologist

137

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DATE: 19 OCT 1987
FILE No.: 9002/5
INITIALS:

Central Mineralogical Services

39 Beulah Road
Norwood, S.A. 5067
Telephone 42 5659
FAX. 08-363 1820

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

15th October, 1987

REPORT CMS 87/8/15

YOUR REFERENCE:	Letter dated 12.8.1987
DATE RECEIVED:	14th August, 1987
SAMPLE NOS.:	22 Samples
SUBMITTED BY:	P.A. Roberts
WORK REQUESTED:	Petrology/Mineralogy

H.W. Fander, M. Sc.

REPORT CMS 87/8/15

A suite of twenty-two rock slabs from the Narrawa Licence in northern Tasmania was received for petrological and mineragraphic examination. Representative sections were prepared,with the majority of samples represented by polished thin sections. Attached descriptions summarise the microscopic data, with some rocks described in relative detail and others partly by analogy. Characteristics of the various sample sub-suites are summarised below.

Higgs Mine

This group of rocks exhibits micaceous alteration patterns locally complexed by intermediate-stage quartz veining and late-stage mica (muscovite) veining. Host rocks are variably quartz-pebbly orthoquartzites and argillaceous quartzites, with minor pelite clasts. These rocks are variably weathered, with the secondary micas, which pervade the primary argillaceous components, partly obscured by weathering effects. Both phlogopite and muscovite appear to have been present as metasomatic phases. Alteration, in general, is of pneumatolytic character ("greisening") and may be accompanied by mild hornfelsic recrystallization effects.

The micaceous alteration is accompanied by a disseminated sulphide assemblage which is both uniform and rather pervasive. This comprises pyrite and pyrrhotite (typically pyritised/marcasitised), sphalerite (dark red, high-Fe), galena and accessory chalcopyrite.

Subsequent quartz veining and nebulous zones of quartz replacement are evident in a few rocks. This phase is non-sulphidic, but is gold mineralised. There is thus no more than a co-incidental relationship between gold and sulphides.

Gold also occurs in association with the late-stage mica (muscovite) veinlets. These features are variably ferruginised and may well have included a soluble gangue phase, for example sideritic carbonate, now represented by cavities, and supplemented by minor sulphides.

The gold mineralisation exhibits a coarse and spotty distributional mode, with a consequent indifferent relationship between assay values and optically detectable Au. This is complexed by secondary "nuggety" gold development in oxidised rocks.

There is evidence of an Au-barren pyritic siliceous vein phase, represented by sample T 4593.

Narrawa Reward Mine

General features here are similar to those at Higgs. In comparison, the quartzite host rocks exhibit relatively intense pneumatolytic alteration characterised by development of fine-grained topaz in addition to quartz and muscovite. A disseminated to semi-massive arsenopyritic sulphide assemblage is developed, with relatively abundant chalcopyrite.

Sample T 691 exhibits disseminated electrum which, on the basis of tarnishing effects, is a high-Ag/trend native silver variety. This rock is partly weathered and it is uncertain whether this phase is primary or supergene. Perhaps significantly, the relatively sulphide-mineralised T 4791 appears unmineralised in terms of Au and Ag, although this aspect may warrant further investigation on the basis of assay data.

The limited sampling, in comparison with Higgs, denies close comparison of the two situations.

Skarns

These rocks may be variously classified as garnet-actinolite and garnet-diopside skarns. There is some evidence of two generations of amphibole in that T 4888 exhibits crude bands of actinolite, whereas T 4592 exhibits a breccia-like fabric with garnet aggregates matrixed by actinolite.

Sample T 4888 exhibits Au-Bi mineralisation as actinolite aggregate-hosted disseminations of bismuthinite carrying intergranular bismuth and micron-sized gold particles. There is some evidence that bismuth-hosted gold may represent degraded maldonite, which phase would not be inconsistent with these contact-pyrometasomatic assemblages.

In contrast, the Higgs Mine and Narrawa Grid skarns appear unmineralised, although weakly anomalous in Au.

Porphyries

These rocks appear essentially uniform in terms of primary composition, but detail is obscured by alteration to the degree that there are no notable contrasts between the Devonian and Cambrian porphyries, from the petrological viewpoint.

All five rocks exhibit pneumatolytic alteration analogous to that noted in the Higgs and Narrawa quartzites. One rock (T 6023) exhibits topazisation analogous to that in the pneumatolised porphyries at Mount Bischoff. Sulphide assemblages are essentially similar to those noted at the Higgs Mine. There is, however, little evidence of the specifically gold-mineralised quartz and mica veins developed at Higgs, which are essentially overprinted on the base metal mineralised pneumatolytic assemblages.

D. Cowan, B. Sc.

REPORT CMS 87/8/15

Petrological/Mineragraphic Descriptions

HIGGS MINE AREA

T 3532 (T.S., P.S. 58644) Higgs Creek

This is a pyritic orthoquartzite reflecting mild phyllosilicate alteration. The rock exhibits a mildly recrystallized framework of well-sorted, fine sand-sized, subangular to subround quartz grains with interspersed bands of fine sand-matrixed, poorly (strictly bimodally) sorted medium to coarse sandstone. These units exhibit clastic sub- to rounded quartz grains and composites, supplemented by minor altered pelite clasts.

The rock is cemented with overgrowth quartz, with pervasive intergranular flakes and clusters of a very fine-grained degraded (weathered/partly ferruginised) phyllosilicate, apparently biotite. This phase also replaces the rare pelite clasts.

Partly oxidised pyrite disseminations, with subordinate to minor dark red sphalerite and traces of galena, exhibit a banded distribution as quartz-intergranular blebs grading into spongy, semi-massive lenses.

Accessory relict detrital leucoxenic semi-opaques and sub- to rounded zircons are present. The rather subtle recrystallization and alteration ("biotitisation") effects in this rock are apparently marginal contact alteration features, with finer detail obscured by partial weathering.

The sulphide assemblage comprises pyrite and subordinate/variable proportions of marcasite, sphalerite and galena, with accessory proportions of chalcopyrite. The habit is quartz intergranular, disseminated to spongy semi-massive, and banded.

Pyrite and marcasite occur in fine granular to microcrystalline aggregates and are clearly secondary after pyrrhotite. Base metal sulphides occur in simple composite aggregates (notably galena), but with no tendency to development of supergene sulphides suggesting "post mine" weathering-dissolution.

Minor traces of pyrrhotite persist as micro-inclusions in sphalerite. Close examination revealed no detectable gold in the area sectioned. This evidence is negative, but consistent with a coarse "spotty" distribution considering the Au assay data.

T 4788 (P.T.S. 58645) Higgs Creek

This sample represents a relatively altered and mineralised quartzose sandstone, coarser-grained and essentially similar to the "quartz pebble" units in T 3532.

The weakly bedded framework consists of sub- to rounded, medium to coarse sand-sized quartz composites and relatively minor quartz grains with subordinate altered pelite (shale, quartzose silty shale) clasts. These are matrixed with a poorly to moderately sorted, weakly argillaceous, fine-grained orthoquartzite.

The rock is pervaded by an irregular network and crude stringers of fine-grained mica, and spongy to semi-massive sulphide aggregates. The mica is partly weathered and is poorly determinate but, in common with that in T 3532, appears to be biotite. Relics are vermiculitic in terms of optical characteristics. The mica pervades pelitic lithic clasts and elsewhere appears replacive after an argillaceous cement. Clay/degraded mica aggregates are variably stained with cryptocrystalline jarositic and hisingerite material reflecting partial oxidation of the pyritic sulphide assemblage.

This rock exhibits a pyrite-sphalerite-galena-marcasite-chalcopyrite assemblage closely analogous to that in T 3532. In comparison, the sulphides (notably sphalerite, galena) are slightly coarser-grained, and marcasite is relatively uncommon, although similarly pyrrhotite-derived. Minor traces of pyrrhotite persist a relict micro-inclusions in sphalerite, and rare microscopic patches of covellite stain clay aggregates. Galena is weakly corroded. Pyrite is partly secondary (after pyrrhotite) and partly primary.

In common with T 3532, close examination revealed no detectable gold.

T 6055 (T.S. 58646) Higgs Mine Dump

This is a partly weathered orthoquartzite similar to T 4788 and particularly T 3532, and similarly altered.

The rock is a well-sorted, fine-grained orthoquartzite with centimetric interbeds of bimodally sorted medium to coarse sandstone, comprising subangular to rounded quartz aggregates with a fine quartz sand matrix. Very fine-grained degraded/partly ferruginised mica ("biotite") is pervasive along quartz grain boundaries, with subordinate relatively coarse intergranular aggregates, accompanied by clots of oxidised sulphide and extensively pervaded by yellowish isotropic "hisingerite". The coarser oxidised-sulphide-bearing degraded mica aggregates are concentrated in the "pebbly" units and, in part, represent altered pelite clasts. In common with the previous examples, this rock exhibits mild hornfelsic recrystallization effects.

T 6056 (P.T.S. 58647) East End Higgs Mine

An altered and mineralised orthoquartzite, this rock is essentially similar to T 3532, T 4788 and T 6055.

Alteration effects are relatively marked. The rock exhibits altered pelitic partings and irregular zones of stressed and partly recrystallized vein-type and replacive quartz. Pelitic zones are represented by fine-grained, random, partly degraded mica (?phlogopite) aggregates, vein-quartz by mildly stressed and extensively recrystallized optically clear quartz, and replacive quartz by similarly stressed, irregular, semi-optically continuous masses with fine micaceous inclusions.

Irregular, sub- to millimetric-scale, semi-massive sulphide aggregates and discontinuous sulphide stringers are associated with late impregnations and veinlets of fine-grained muscovite, extensively degraded to illite and kaolin. In marginal areas the rock exhibits minor sulphide disseminations in association with mild micaceous alteration analogous to that in the previous samples. The white micaceous veins and impregnations include traces of fine-grained blue tourmaline. Silicification appears temporally intermediate between the early, weakly sulphidic "phlogopitic" and late, relatively sulphidic white mica(-tourmaline) phases.

This rock exhibits a typical pyrite-sphalerite-galena-chalcopyrite assemblage, with accessory traces of (pyrrhotite-derived) marcasite and rare relict micro-inclusions of pyrrhotite. General features are closely analogous to those in T 3532 and particularly T 4788, with pyrite largely primary but partly pyrrhotite-derived.

Close examination revealed a single gold particle as an inclusion in the replacive quartz. This particle is curved and apparently flaky or rod-like in habit, with sectional dimensions of 10x30 μ.

T 6057 (P.T.S. 58648) Higgs Mine Western Pillar

This sample represents an altered, weathered, and partly ferruginised sandstone with affinities to T 3532 etc.

This rock consists essentially of fine (mean 75 μ) subpolygonal quartz representing a mildly recrystallized fine sand-sized clastic framework. Similarly recrystallized subround, medium sand-sized quartz grains and composites are thinly disseminated throughout. There are occasional medium sandy interbeds analogous to thos in T 3532.

Semi-pervasive kaolinised and variably ferruginised intergranular clots of degraded fine-grained indeterminate mica are present. These are concentrated in medium sandy units, where they are accompanied by sporadic, relatively coarse ferruginous clay patches representing altered and weathered pelite clasts. Limonite is partly sulphide-derived and partly introduced as micro-colloform patches infilling cavities after sulphide and leached mica aggregates.

Sulphides persist only as thinly dispersed relict micro-inclusions of pyrite and rarely pyrrhotite in quartz, and extremely rare microscopic spongy stainings of covellite, locally accompanied by ultrafine native copper, in the limonitic clay aggregates. Close examination revealed no detectable gold.

T 6058 (P.T.S. 58649) West Higgs-Cut 7 14.5-15.8M

An altered, weathered, and partly ferruginised orthoquartzite, this rock is very similar to T 6057. The main contrast lies in the presence of sporadic crudely bedding-controlled replacive zones, vugs and discontinuous veinlets of vein-type quartz, of millimetric to (fine) centimetric proportions. These are analogous to those in T 6056 and similarly, but relatively incipiently stressed.

Limonitic stainings are concentrated marginal to the "silicified" zones. These appear to represent degraded, leached, and partly limonitic-infilled sulphide-mica composite aggregates, by analogy with those in T 6056. The limonite-fringed irregular cavities locally include abundant extranous silt to fine sand-sized quartz grains loosely cemented with limonite and variably ferruginised clay (kaolin) aggregates.

This rock exhibits minor relics of pyrite and pyrrhotite as micro-inclusions in quartz, analogous to those in T 6057.

Gold is relatively abundant and exhibits two habits. A single coarse stumpy/crudely rectangular 60x72 μ grain intergranular to, and partly included in, the vein-type quartz is interpreted as (a section of) a gold crystal and represents the primary mode, analogous to that in T 6056.

Additional gold occurs in association with quartz-intergranular clots and the irregular cavity-lining films of limonite. In this context, the gold is spongy to irregular-blebby and locally "nuggetoid" in habit, as single grains and clusters (of 2 to approx. 15 irregular particles), with individual grains ranging from 5 μ to an observed maximum of 60x90 μ for the "nuggety" mode. This represents the coarse secondary spotty distribution inferred from the poor correlation of assay data and observable gold in the surface samples.

T 6059 (P.T.S. 58650) West Higgs-Cut 7 39-41M

This rock may be categorised as an altered and veined sericitic orthoquartzite. Finer detail is partly obscured by weathering and partial ferruginisation, but general features are analogous to those in the associated samples.

This rock is a relatively poorly (strictly bimodally) sorted and relatively bedded fine- to medium-grained quartz sandstone with a semi-pervasive sericite/microcrystalline quartz cement.

A crudely bedding-controlled stockwork-style network of sub- to millimetric-scale quartz veinlets is present. These features are mildly stressed and include disseminated limonite-fringed cavities after fine-grained sulphide and mica aggregates. Vein-marginal zones of the host rock include isolated limonite-frined rhombic cavities (to 500 μ) after arsenopyrite euhedra.

Vein quartz-associated mica aggregates grade into crosscutting, relatively micaceous (muscovite) veinlets and films. Associated are sporadic fine-grained muscovite aggregates as partial replacements of continuous pelitic partings and minor pelite clasts within the host rock. These grade in turn into minor late, fine-grained muscovite veinlets, with the included mica partly degraded, leached, and ferruginised.

Mineragraphic examination reveals minor traces of pyrrhotite, pyrite and chalcopyrite as ultrafine relict micro-inclusions in quartz (veinlets). A single 120 μ diameter equant, crudely rectangular-sectional gold particle is present within a ferruginised mica veinlet. This appears to represent a "primary" gold distributional mode.

T 4591 - Hole ND-1/61 m (P.S. 58651)

Represents a semi-massive pyritic sulphide rock with a fine-grained, crudely banded quartz gangue. The pyrite is fine-grained in granular aggregates and exhibits rare micro-inclusions of pyrrhotite, suggesting this may represent recrystallized secondary (i.e. pyrrhotite-derived) pyrite. Quartz is similarly fine-grained and granular, with minor subhedral coarser grains consistent with a recrystallized vein-type paragenesis.

Traces of chalcopyrite are present but, in contrast with the pyritic altered orthoquartzites, galena and sphalerite are absent. Mineralogy thus tends to negate correlation with the pyritic quartzites. Close examination revealed no detectable gold.

T 4593 - Hole ND-3/66.4 m (P.T.S. 58652)

This is an altered and mineralised argillaceous orthoquartzite. The rock is weakly bedded and is bimodally sorted, with pervasively disseminated subangular to subround medium sand-sized quartz grains and composites in a matrix of fine subangular quartz sand. A pervasive incipiently sheared cement of semi-sericitic kaolin-illite is present, and there are sporadic thin discontinuous pyritic pelite (shale) partings.

Stringer-like aggregates of fine-grained, partly degraded and incipiently Fe-stained mica (?phlogopite) occur as partial replacements of the argillaceous cement. Interspersed with these aggregates are fine-grained disseminations, spongy aggregates and occasional relatively massive stringers of sulphide. The replacive mica aggregates exhibit incipient bedding-conformable shearing effects, consistent with the weakly phyllitic argillaceous matrix and mild stress effects in the quartz framework. Sulphide aggregates include accessory fine-grained ankeritic carbonate "gangue".

This rock exhibits a disseminated pyrite-galena-sphalerite-accessory chalcopyrite assemblage typical of the altered quartzites. Pyrite rarely occurs as fine euhedra, but more typically as weakly dimensionally orientated fine granular aggregates. These exhibit rare corroded relict inclusions of pyrrhotite, accessory traces of marcasite, and are interpreted as recrystallized secondary pyrite. Galena, sphalerite, and the minor chalcopyrite similarly occur as semi-orientated polygonal mosaic aggregates. Minor microfractures are sulphide aggregate-displacive, and these features are occasionally impregnated with secondary spongy microcrystalline films of pyrite.

General features confirm the sulphides predate the mild shearing effects. Close examination revealed no detectable gold.

T 4594 - ND 3/110.4 m (P.T.S. 58653)

This is an altered and relatively sulphide-mineralised argillaceous orthoquartzite with affinities to T 4593.

The rock consists of fine-grained subpolygonal quartz, representing a mildly recrystallized fine sandy clastic framework, pervasive intergranular semi-orientated pale (yellow-brown) fine-grained phlogopite, and semi-pervasive intergranular fine-grained galena. Sporadic relatively massive lenses of phlogopite represent altered pelite partings. Occasional calcite-pseudomorphed tufts of fine acicular amphibole appear within the phlogopite aggregates.

Occasional relatively massive stringers of galena, sphalerite and pyrite, ranging to 5 mm in width but typically < 2 mm, are discordant to bedding. These are selvedged by fine-grained vein-type quartz and grade into discontinuous quartz veinlets exhibiting incipient stress effects. Late crosscutting displacive veinlets of impure calcite are present. These are locally displaced by phlogopitic foliae, the rock exhibiting weak multistage stress effects.

Mineragraphic examination confirms a simple pyrite-galena-sphalerite-accessory chalcopyrite assemblage typical of the altered quartzite. Pyrite is partly pyrrhotite-derived and is accompanied by relatively conspicuous microcrystalline marcasite. Textural relationships are similar to those in T 4593, although in comparison those sulphide aggregates are relatively coarse-grained and exhibit relatively marked late microfracturing and stress effects.

Close examination revealed no detectable gold.

NARRAWA REWARD GOLD MINE

T 691 (P.T.S. 58654) Narrawa Reward - Dump

This is a mildly altered and mineralised argillaceous orthoquartzite. The rock is relatively fine-grained, representing a recrystallized quartzose siltstone with sub- to fine millimetric-scale interbeds of fine-grained sandstone. Silty units exhibit a sparse but essentially pervasive argillaceous cement of semi-sericitic white mica. Sandy units are relatively massive (non-argillaceous). Minor crude pelitic partings are present. Bedding is rather contorted, apparently a reflection of slumping.

Relatively argillaceous zones of this rock are variably impregnated with microcrystalline clots and films of topaz, with associated fine-grained sulphide disseminations and traces of fine-grained muscovite. Sulphides are mildly corroded and replaced by microbotryoidal clots of an indeterminate secondary "salt".

The major sulphide present is arsenopyrite as fine-grained spongy stringers in the "topazised" argillaceous partings. Marginally dispersed clots of microcrystalline pyrite-stained clay and limonite apparently represent selectively weathering-degraded pyrite. Accessory proportions of chalcopyrite and minor traces of sphalerite are present.

Close examination revealed a single irregular arsenopyrite-intergranular 20x25 μ bleb of pale electrum. It is uncertain whether this is primary or supergene in origin. No gold was detected, but given the partly weathered nature of this rock, coarse "spotty" secondary gold may be expected.

T 4791 (P.T.S. 58655) Narrawa Reward - Dump

This may be categorised as a quartz-topaz-sulphide-muscovite rock. The rock is fine-grained and represents an altered and recrystallized quartzose sandstone. Major mineralogy comprises fine to microgranular quartz, very fine partly degraded (kaolinised) topaz, more or less pervasive spongy fine-grained sulphide aggregates, and subordinate to minor muscovite with a little associated pale phlogopite. Micas are semi-concentrated into crude lenses and are semi-orientated. General features are consistent with a pneumatolytically altered argillaceous orthoquartzite analogous to T 691.

The spongy, semi-massive sulphide aggregates consist of arsenopyrite with subordinate but variable proportions of chalcopyrite and pyrite. Arsenopyrite is fine- to medium-grained and partly corroded by the chalcopyrite and pyrite. Pyrite is at least locally pyrrhotite-derived.

Traces of sphalerite are present. Close examination revealed no detectable gold. This aspect may warrant re-examination by way of a systematic scan at high magnification should this rock prove anomalous in Au.

SKARNS

T 4888 - Stormont Au-Bi Mine (P.T.S. 58456)

This rock may be classified as a garnet-actinolite rock or skarn. It consists essentially of medium-grained (mean 750 μ) complexly growth-zoned and sector-twinned pale yellow grossular-andradite with semi-pervasive included fine-grained actinolite. Sporadic relatively massive lenses and crude bands of actinolite are present. Accessory poikilitic quartz occurs within the actinolite aggregates and intergranular to garnet. Minor discontinuous quartz veinlets exhibit selvedges of garnet. Isolated flakes of dark green biotite occur in the relatively massive actinolite aggregates. These are partly altered to microcrystalline cloudy calcite and chlorite and are partly weathered, with associated secondary Fe-stainings.

One actinolite aggregate includes a 2x4 mm ovoid aggregate, and subordinate actinolite-interstitial fine-grained disseminations of, bismuthinite. The coarse aggregate is granular-textured, with disseminated bismuthinite-intergranular patches of bismuth ranging to 160 μ diameter. Both bismuthinite and bismuth exhibit very thinly dispersed included blebs of gold ranging to 25 μ diameter (ovoid bleb in bismuth), but typically < 10 μ. Bismuth including gold is largely untwinned and these composites may represent degraded maldonite.

T 4889 - Stormont Au-Bi Mine (P.T.S. 58657)

This is a garnet-actinolite skarn with close affinities to T 4888. This rock exhibits a breccia-like fabric with aggregates of variably actinolite-stained, medium-grained grossular-andradite in a matrix of semi-massive actinolite aggregates carrying thinly disseminated relatively fine garnet euhedra.

In common with T 4888, the garnet is complexly zoned and sector-twinned. Poikilitic quartz is relatively conspicuous within the finer-grained garnet aggregate-hosted amphibole aggregates. Amphibole,particularly where fine-grained, is partly replaced by Fe-stained microcrystalline calcite aggregates.

Mineragraphic examination revealed traces of magnetite s thinly disseminated microscopic (< 20 μ) euhedra in the actinolite aggregates. Close examination revealed no detectable Bi-minerals or gold.

T 4592 - ND 3/34.5 m - Higgs Mine (T.S. 58658)

This sample represents a garnet-diopside skarn. The rock is crudely lenticularly banded and is fine- to medium-grained. Semi-massive zones of medium-grained colourless to pale yellow grossular-andradite are interspersed with finer-grained granular aggregates of diopside.

Garnet is variably growth-zoned, but lacks sector-twinning and is isotropic in contrast to the strongly anisotropic variety in T 4888 and T 4889. Pyroxene is generally colourless, but some grains are weakly colour-zoned green (i.e. diopside-hedenbergite). Accessory poikilitic/anhedral quartz is concentrated in the clinopyroxene aggregates.

This rock exhibits sporadic microscale vugs of limonite-stained clay ("montmorillonite"). Calc-silicates are weakly argillised, with the garnet selectively affected.

T 4700 - Narrawa Grid (T.S. 58659) 6200E/ 5285N

This is a diopside-feldspar-magnetite skarn. The rock consists largely of fine- to medium-grained pale green diopside-hedenbergite in weakly interlocking granular aggregates. Intergranular magnetite is semi-pervasive, with a banded distribution. Occasional bands of kaolin-clouded potash feldspar include minor semi-poikilitic garnet (grossular-andradite). Accessories include minor diopside-intergranular patches of fluorite, traces of hastingsitic amphibole, and minor disseminations of pyritised pyrrhotite.

This rock is weakly stressed. Minor late microscale veinlets of prehnite are present. Clouding of feldspar and patchy argillic staining of diopside are weathering-induced features.

In common with the Higgs Mine skarn, this rock reflects a relatively high metasomatic grade in comparison with the Stormont actinolitic skarns.

PORPHYRIES

T 4890 (T.S. 58660) Narrawa Grid 6050E/ 5112N

This may be categorised as a mildly greisened quartz-feldspar porphyry.

The frequent phenocrysts are mildly corroded quartz and weakly clustered orthoclase, supplemented by minor altered (muscovitised/K-feldspathised) biotite. These are enclosed in a groundmass of microcrystalline to semi-felsitic and microspherulitic quartzofeldspathic material. Minor xenoliths of biotite-quartz hornfels are present, and there is some evidence of degraded (pinitised) ?xenocrystal cordierite. Accessories comprise thinly dispersed grains of blue schorl and rare zircons. Textural features are consistent with a semi-chilled, primarily subvitric, minor intrusive.

Mild pneumatolytic alteration is reflected in development of weak sericitic stainings in the groundmass and sporadic feldspar phenocryst-replacive aggregates of fine to semi-sericitic muscovite with a little associated topaz and green schorl. The minor phenocrystal biotite is similarly altered with resultant "exsolution" of secondary microcrystalline K-feldspar.

T 4792 (P.T.S. 58661) Narrawa Reward Mine 48-50M Nth Wall

This is a relatively altered and mildly sheared quartz porphyry.

The disseminated quartz phenocrysts exhibit mildly corroded margins and mild stress/partial recrystallization effects. These features are enclosed in an altered groundmass of microgranular quartz and fine to semi-sericitic muscovite with sporadic phyllite-textured discontinuous foliae of coarser-grained muscovite. Some of these features represent sheared muscovite pseudomorphs after accessory phenocrystal feldspar. Others represent phyllitic-sheared mica veinlets. These grade into muscovite-quartz veinlets and are variably sulphide-mineralised.

This rock is distinctly sheared in comparison with the Narrawa quartzites, apparently a reflection of the enhanced mica content.

Mineragraphic examination confirms a simple sulphide assemblage of disseminated semi-dimensionally orientated pyrite anhedra, sporadic microcrystalline aggregates of secondary (pyrrhotite-derived) pyrite, rare blebs of chalcopyrite, and very thinly dispersed fine-grained (mean 30 μ) arsenopyrite subhedra.

Close examination revealed no detectable gold.

T 4590 - DG 1/145.5 m (P.T.S. 58662)

This is a greisened and mildly sheared quartz-feldspar porphyry.

Quartz phenocrysts persist as mildly corroded grains, weakly but variably stressed and locally recrystallized. Clustered feldspar phenocrysts are represented by semi-pseudomorphous fine- to medium-grained composite aggregates of quartz and muscovite with sporadic sulphide disseminations. This alteration pattern is characteristic of K-feldspar rather than plagioclase and, on this basis, this rock is interpreted as primarily compositionally similar to T 4890.

Sporadic lensoid masses of variably sulphide-mineralised quartz and muscovite represent mildly boudinaged veinlets, analogous to those in T 4792, but relatively coarse and carrying traces of tourmaline. The altered groundmass consists of semi-phyllitic aggregates of microgranular quartz and semi-sericitic muscovite, replaced in irregular zones by secondary kaolin.

This rock exhibits a disseminated pyrite/pyritised pyrrhotite/sphalerite/galena/chalcopyrite assemblage analogous to that in the Higgs Mine altered quartzites, but supplemented by rare fine arsenopyrite subhedra (max. 50 μ), and minor traces of galena-included tetrahedrite.

Minor secondary films of spongy microcrystalline pyrite are micaceous fracture-related. Close examination revealed no detectable gold.

T 6023 (T.S. 58663) ND-1 Drill Site

This is a quartz-topaz-muscovite rock and represents a thoroughly pneumatolytically altered quartz-feldspar porphyry.

Relict quartz phenocrysts, variably stressed and partly recrystallized, are disseminated throughout. Feldspar phenocrysts are represented by pseudomorphous aggregates of fine- to medium-grained quartz and topaz, with associated ferruginised muscovite and oxidised sulphide disseminations. These features are enclosed in an altered and weakly sheared groundmass of microgranular quartz and topaz with subordinate to minor semi-sericitic muscovite.

In addition to the pneumatolytic quartz-topaz-mica assemblage, this rock carries ferruginised-degraded disseminations of a fine porphyroblastic prismatic phase, conceivably andalusite. Phenocrysts are relatively unevenly sized. General features are similar to the topazised porphyries at Mount Bischoff.

T 3519 (P.T.S. 58664) Cambrian Porphyry - Cradle Mtn Road

This is a thoroughly altered quartz-feldspar porphyry. In comparison with the associated porphyries, this rock is of relatively "rhyolitic" character. Finer detail is obscured by alteration, but a rather heterogeneous/partly flow-brecciated fabric is suggestive of an intrusive breccia mode of origin.

Major features comprise frequent quartz and relatively minor quartz-sericite (+ chlorite) pseudomorphed feldspar phenocrysts, supplemented by minor similarly altered biotite phenocrysts in a thoroughly sericite-quartz-altered felsic groundmass. The primary flow breccia-like fabric is complexed by sporadic sericitic-chloritic microfractures and quartz-sericite-chlorite veinlets with disseminated sulphides.

The pyritic vein (hand specimen) consists largely of fine to microgranular quartz with accessory clots of sericite and kaolin, semi-pervasive pyrite,and minor fine-scale vuts of coarser-grained quartz. This feature postdates the compositionally similar veinlets, which exhibit a (dark red) sphalerite-rich sulphide assemblage, but predates mild late stress effects.

The host rock exhibits a disseminated sphalerite/subordinate galena/accessory chalcopyrite/rare pyrite assemblage with chalcopyrite locally replaced by supergene covellite and chalcocite.

The pyritic vein exhibits abundant pyrite as unevenly sized (mean 100 μ) sub- to euhedral crystals. These, and the associated silicates,carry micro-inclusions of galena, sphalerite and chalcopyrite, with accessory traces of supergene covellite.

Close examination of both the disseminated and vein sulphide assemblages revealed no detectable gold.

T 3522 (P.T.S. 58665) Cambrian Porphyry: Cradle Mtn. Road

This is an altered, partly weathered and ferruginised quartz-feldspar porphyry. General features are similar to T 3519. In comparison, this rock is finer-grained and exhibits a simple but pervasive sericite-quartz alteration assemblage.

Quartz phenocrysts persist as relics, with relatively fine feldspar phenocrysts represented by pseudomorphous microgranular quartz aggregates. In contrast to T 3519, there is no evidence of phenocrystal biotite. The altered groundmass consists of sericite and microcrystalline quartz in variable but overall near-equant proportions.

The rock is stressed, with a semi-pervasive, irregular network of displacive sericitic and hematitic fractures. Sporadic fractured and segmented quartz veinlets carry spongy clots of hematite and limonite, secondary after sulphide disseminations, with occasional associated pseudomorphs after fine-grained pyrite euhedra.

Mineragraphic examination confirms the bulk of quartz veinlet-related limonite as microcolloform and introduced, partly into cavities after pyrite disseminations. Minor traces of pyrite persist as micro-inclusions in (vein) quartz. Possibly, other sulphides were present on the basis of "anhedral" quartz-intergranular patches of limonite, but there are no diagnostic boxworks. Close examination revealed no detectable gold.

D. Cowan, B. Sc.

420 000mE 422 000mE 424 000mE 426 000mE 428 000mE 430 000mE 432 000mE 434 000mE 436 000mE 438 000mE 440 000mE

5 410 000mN

5 408 000mN

5 406 000mN

5 404 000mN

5 402 000mN

5 400 000mN

151

CROWN LAND

STATE FOREST

PROPOSED VESTING OF THESE

MT ROLLAND PROTECTED AREA

PROPOSED ADDITION TO MT ROLLAND PROTECTED AREA

MOUNT ROLAND

Gowrie Park

WILMOT

LAKE GAIRDNER

BELL MOUNT Au

Outcropping skarn

Partly Au bearing

SHEPHERD & MURPHY Sn,W,Bi,Mo

NARROWAY

HIGGS Au

PROCTETT'S Au

POWER W,Mo

BLACKS W,Bi,Mo

MAYERS W,Bi,Mo,Sn

DOLCOATH GRID

ALL NATIONS W,Bi,Sn,Mo

LAWRENLAW W

8 WHISTLE W,Bi,Sn

IRIS MINE Sn,W,Bi

DOLCOATH W,Sn,Mo

ROUND HILL Au,Ag

ASHWORTHS Sn

HIDDEN TREASURE W,Mo,Bi

FALLS MINE Sn

PREMIER W,Bi,Mo

DEVONIAN MINE Au

CAMBELL'S REWARD Au,Ag

BISMUTH CREEK FAULT

E.L. 26/85

CETHANA

STANDARD HILL

Solomons Dome

Olivers Hill

Tb Om Oc Og Dg Dpq €

LEGEND

TERTIARY
- Tb — Basalt, Basalt scree & Greybilly

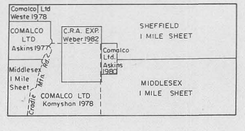
DEVONIAN
- Dg — Dolcoath Granite
- Dpq — Quartz-porphyry dykes

ORDOVICIAN
- Og — Gordon Limestone
- Og — Skarn
- Om — Moina Sandstone
- Owen Conglomerate Equivalents

CAMBRIAN
- € — Undifferentiated Volcanics

- Strike & Dip
- Anticline
- Syncline
- Cut Grid
- Geology Contact
- Fault
- HIGGS Au — Old Mines & contained metals
- Unconformity Surface

GEOLOGICAL RESPONSIBILITY DIAGRAM



5 cm

850150

GOLD FIELDS EXPLORATION PTY. LIMITED

87-2739

CETHANA SHEET

INTERPRETIVE GEOLOGY

DRAWN BY	R.R.
DRAFTSMAN	S.F.
DATE	NOV.'87
REVISIONS	
FILE NO.	

SCALE 1:25 000 — 500 250 0 500 1000 METRES

FIG. 2

E.L. 26/85

CETHANA ROAD

Underground Pipeline

DOLCOATH GRID

5000E 5100E 5200E 5300E 5400E 5500E 5600E 5700E 5800E 5900E 6000E 6100E 6200E 6300E 6400E 6500E 6600E 6700E

SHALE (Pe) BANDS WITHIN PREDOMINANTLY QUARTZITES AND PEBBLY QUARTZITES

Gossan/Laterite

Penstock

Wilmot Power Station

Gravel Pits

Cethana Power Station

Spillway

Cethana Dam

Intake

Gravel Pit

CETHANA LAKE

Disused Quarry

Creek

Narrawa

DOLCOATH HILL

Dolcoath Hill

Un-named Workings (W)

Gravel Pits

All Nations

Mullers Heap

Blacks Lower Shafts

Blacks Lode

Silicified + Pyritic Alteration

Southern Wolfsmilte Lode

Sayers Workings

Sayers Workings Gs vn

Rovers Workings

Qz, Mo, Wm vns

Qz/Wm vns

Partly Gs

Gs vns

Minor Pe. Xbands

Prospects

Trenches

Narrawa Tailings Mine

Higgs Gold Mine

Squib Line

Rubble heap

Open Cut

DG-3

DD82 DG-1

DD82 DG-2

ND-1

ND-2

ND-3

5 408 000mN

5 407 000mN

5 406 000mN

424 000mE

425 000mE

426 000mE

427 000mE

428 000mE

5 cm

850151

LEGEND

Ty TERTIARY SEDIMENTS

ORDOVICIAN

P/Cs MIXTURE OF PELITIC PSAMMOPELITIC AND CALC-SILICATE UNITS

Qt MASSIVE QUARTZITE TO PSAMMOPELITE - COMMONLY PYRITIC AND SILICIFIED

Qtt MASSIVE QUARTZITE, TUBICULOR QUARTZITE, LAYERED QUARTZITE AND PEBBLY QUARTZITE WITH MINOR PELITIC UNITS

Cgl CONGLOMERATE

CAMBRIAN

ϵ PORPHYRY

INTRUSIVES

PP QUARTZ FELDSPAR PORPHYRY

DOLCOATH GRANITE

Gs GREISEN IN GRANITE AND AS VEINS IN COUNTRY ROCK (Gs vns)

Wm WOLFRAM

Mo MOLYBDENUM

Qz QUARTZ

STRUCTURE

ANTICLINE AXIAL TRACE (AND PLUNGE)

SYNCLINE AXIAL TRACE

MONOCLINE AXIS & PLUNGE

SHEAR (INFERRED ?)

INTERPRETED GEOLOGICAL CONTACT (? POSSIBLE CONTACT)

FAULT

BEDDING

JOINT

FOLIATION

INDEX TO ADJOINING MAPS

1-1	1-2	1-3
2-1	2-2	2-3
3-1	3-2	3-3

GOLD FIELDS EXPLORATION PTY. LIMITED

CETHANA 87-2739

MOINA AREA - EL 26/85

GEOLOGICAL INTERPRETATION

DRAWN BY : R.H.R.

DRAFTSMAN: G.M.B.

DATE OCT. 1987

REVISIONS :

FILE NO.

SCALE 1:5000 100 50 0 100 200 METRES

FIG. 3

153

425 200mE | 425 400mE | 425 600mE | 425 800mE

s 406 800mN

s 406 600mN

NARRAWA REWARD

HIGGS WORKINGS

HIGGS MINE

WEST HIGGS

TERTIARY SEDIMENTS

PATCHY — MASSIVE SULPHIDE THROUGH-OUT ADIT

SHEETED VNS

BANDED Cs/Pe

DD82 DG1

DD82 DG2

ND-1

ND-2

ND-3

5600E | 5650E | 5700E | 5750E | 5800E | 5850E | 5900E | 5950E | 6000E | 6050E | 5100E

INTERPRETIVE GEOLOGY LEGEND

STRUCTURE
- ANTICLINAL AXIS
- INFERRED FAULT
- INFERRED GEOLOGICAL CONTACT

TERTIARY
- Ty — TERTIARY SEDIMENTS

ORDOVICIAN
- Pe/Ps — PELITE/PSAMMOPELITE
- Cs — CALC-SILICATE RICH UNITS WITH PELITE AND PSAMMOPELITE
- Qt/Ps — QUARTZITE/PSAMMOPELITE
- Qt — MASSIVE QUARTZITE TO PSAMMOPELITE – COMMONLY PYRITIC AND SILICIFIED
- Qtt — PEBBLY QUARTZITE – AND MASSIVE QUARTZITE

INTRUSIVES
- PP — QUARTZ FELDSPAR PORPHYRY

GEOLOGY OUTCROP LEGEND

- OUTCROP
- SUB-OUTCROP
- SCREE

LITHOLOGIES
- Cs — CALC-SILICATE
- Pe — PELITE
- Ps — PSAMMOPELITE
- Gw — GREWACKE
- Qt — QUARTZITE/SANDSTONE
  - Qtl – Layered fabric in Quartzite
  - Qtt – Tubicolor Quartzite
  - P.Qt – Pebbly Quartzite

ABBREVIATIONS
- Vns – Veins
- Fx – Fe staining
- Si – Silicified
- Lm – Limonite
- Py – Pyrite
- Po – Pyrrhotite
- Sd – Base Metal Sulphides
- Gs – Greisen
- Qi – Pebbly Quartz – limonite texture – typically vuggy

STRUCTURE
- SHEAR (& DIRECTION)
- JOINT
- BEDDING
- GEOLOGICAL CONTACT

LEGEND

- MAJOR CREEK
- MINOR CREEK
- ROADS AND TRACK
- OLD WORKINGS
- COLLAPSED STOPES
- MULLOCK HEAP
- ADIT
- WATER RACE
- MINOR TRENCHES

TN MN GN

CETHANA 2-2/C-2

5 cm

850152

GOLD FIELDS EXPLORATION PTY. LIMITED

CETHANA 87-2739

MOINA AREA - EL 26/85

FACTUAL AND INTERPRETIVE GEOLOGY

SCALE 1:1000 (20 10 0 20 40 METRES)

DRAWN BY : R.H.R.

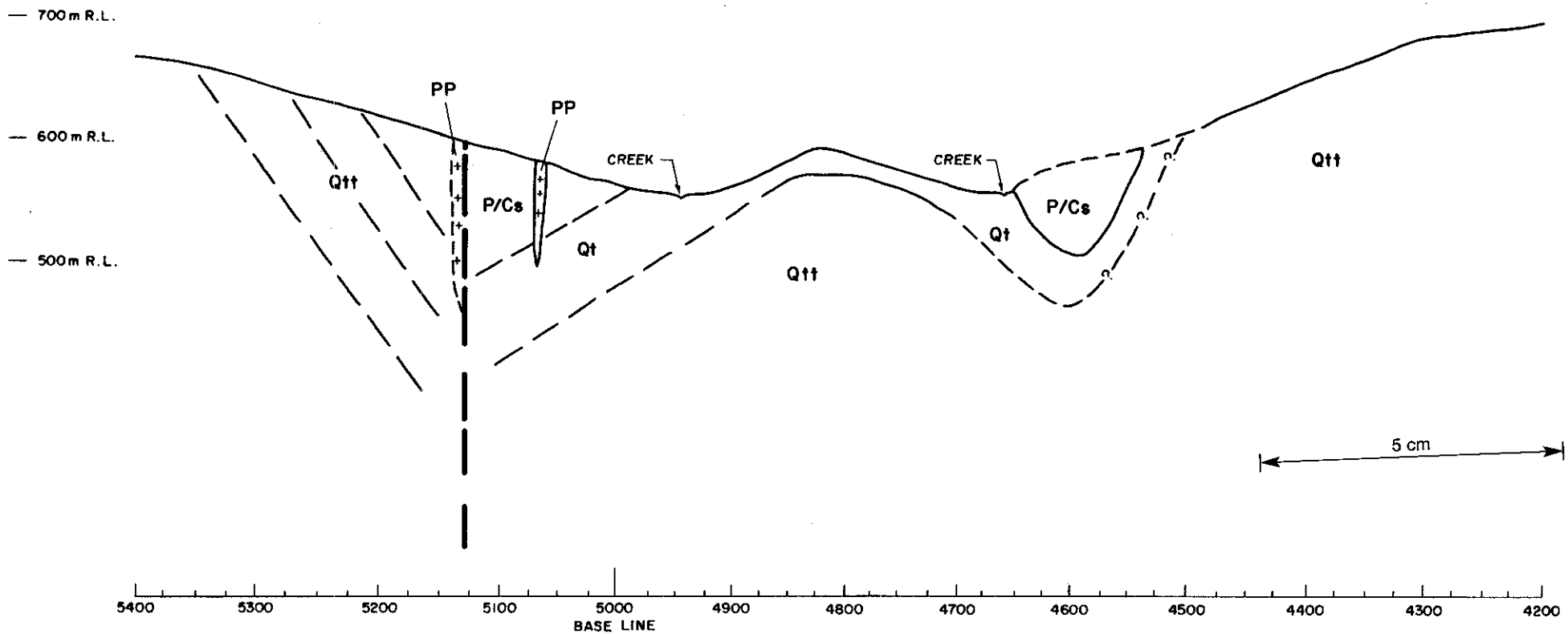
DRAFTSMAN: G.M.B.

DATE : NOV. '87

REVISIONS

FILE NO.

FIG. 4



87-2739

LEGEND

ORDOVICIAN

P/Cs	MIXTURE OF PELETIC PSAMMOPELITE AND CALC-SILICATE UNITS
Qt	MASSIVE QUARTZITE TO PSAMMOPELITE - COMMONLY PYRITIC AND SILICIFIED.
Qtt	MASSIVE QUARTZITE, TUBICULOR QUARTZITE, LAYERED QUARTZITE, AND PEBBLY QUARTZITE WITH MINOR PELETIC UNITS

INTRUSIVES

PP	QUARTZ PORPHYRY FELDSPAR

GOLD FIELDS EXPLORATION PTY. LIMITED

E.L. 26/85

GEOLOGICAL CROSS SECTION LINE 5600E

DRAWN BY	R.H.R.
DRAFTSMAN	G.M.B.
DATE	NOV. 1987
REVISIONS	
FILE NO.	

SCALE 1:5000 (50 0 100 Metres)

FIG. 5

154

NARRAWA ROAD

Narrawa Creek

WEST HIGGS

ADIT 2

ADIT 1

C1 C2 C3 C4 C5 C6 C7 C8 C9

HIGGS WORKINGS

ROAD

HIGGS MINE

Lower Adit Portal

LEDGE

Collapses

COLLAPSED STOPING

BENEATH PILLAR

SHEAR ZONE DIPS 70° (FeO CRUSTS ON FLAT JOINTS)

SLUICED

HIGGS CREEK

Qt (Sil.) Qt Pe + Pe/Ps Pe Qt (Lm) + Gs Gw-Cs Ps/Gw-Cs Ps/Gw-Cs Gw-Cs (Sil.) Qt (Sil., Lm) Qt/Gw (minor Py) Ps/Gw Gw/Ps Gs Qt/Ps Qt (Lm) Qt (Lm) + Gs Sil. Qt (Lm) Qt (Lm) Qt (Lm) Qt/Gw Ps Ps/Pe Gw-Cs P Py vn. Ps (+Pe+Cs) Ps/Gw-Cs Lm, Gs vns

LEGEND

OUTCROP
N.B. CONTINUOUS OUTCROP ALONG THE WORKINGS AND WITHIN ACCESSIBLE ADITS.

MINERALISATION

- DISSEMINATED TO SEMI-MASSIVE SULPHIDE : PYRITE + BASE METALS
- DISSEMINATED SULPHIDE : PYRITE + MINOR BASE METALS
- Py — PYRITE
- Gs — GREISEN VEINING
- Qt — QUARTZ - LIMONITE VEINING

LITHOLOGIES

- Qt — QUARTZITE/SANDSTONE (Sil. : Silicified, Lm. : Limonite)
- Ps — PSAMMOPELITE
- Gw — GREYWACKE
- Pe — PELITE
- Cs — CALC-SILICATE
- C — CLAY ZONE

STRUCTURE

- SHEAR (& DIRECTION)
- INTERPRETED SHEARING
- JOINT
- BEDDING
- GEOLOGICAL CONTACT

TN MN GN

850154

5cm

GOLD FIELDS EXPLORATION PTY LIMITED

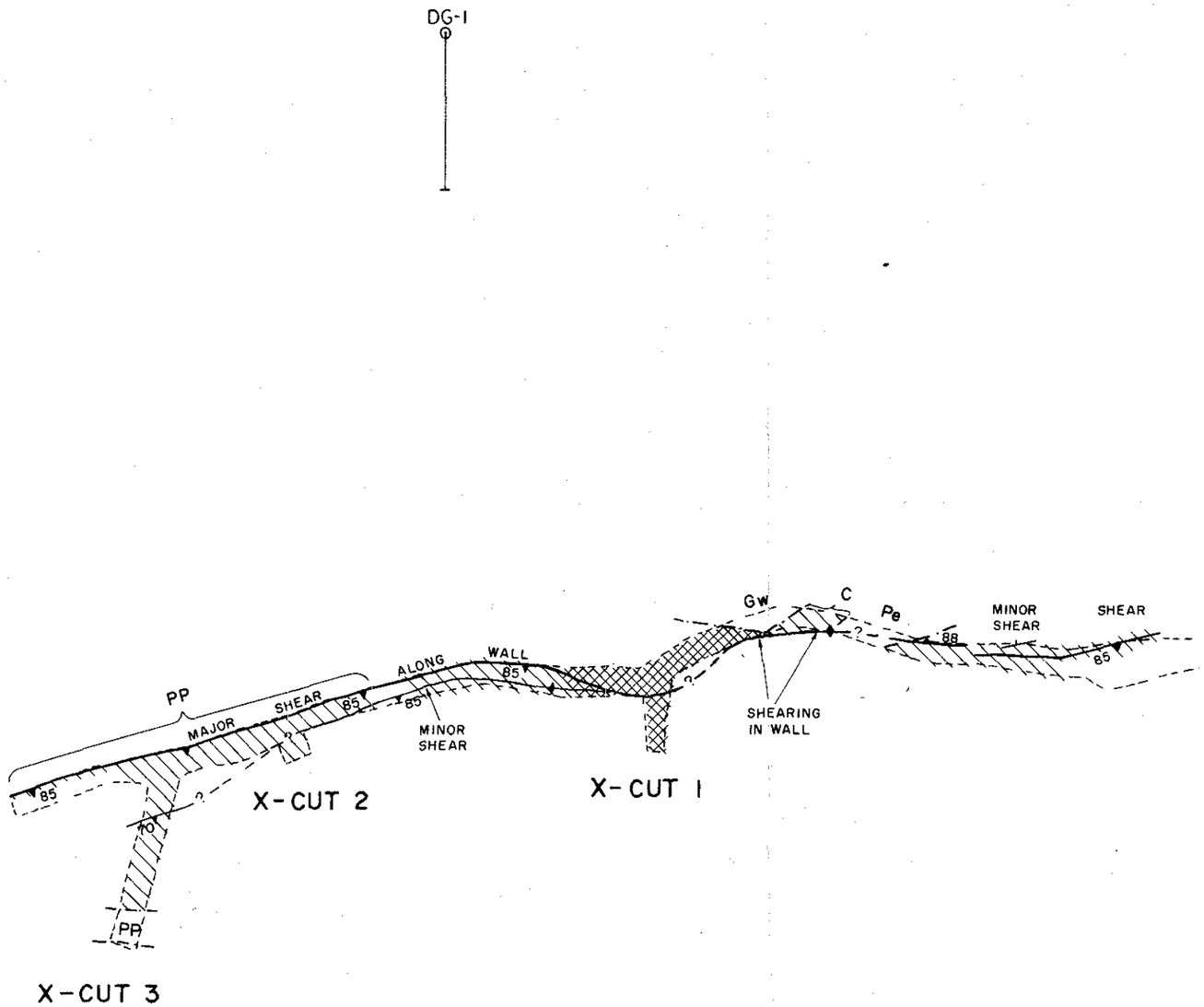
E.L. 26/85
HIGGS WORKINGS
87-2739
FACTUAL AND INTERPRETIVE GEOLOGY 6104

DRAWN BY	R.H.R.
DRAFTSMAN	G.M.B.
DATE	OCT.'87
REVISIONS	
FILE NO.	
FIG.	6

SCALE 1:250

METRES

6104



GN

850155

5 cm

LEGEND

MINERALISATION

- MASSIVE/SEMI MASSIVE SULPHIDE
- PATCHY SULPHIDES

LITHOLOGIES

- QUARTZITE - Typically Altered (Silicified, Mineralised)
- Gw — GREYWACKE
- Pe — PELITE
- C — CLAY ZONE
- PP — QUARTZ PORPHRY

STRUCTURE

- 60 — SHEAR (& DIRECTION)
- INTERPRETED SHEAR
- BEDDING
- GEOLOGICAL CONTACT

87-2739 6105

GOLD FIELDS EXPLORATION PTY. LIMITED

E.L 26/85
NARRAWA REWARD MINE
STRUCTURE & GEOLOGY INTERPRETATION

DRAWN BY
DRAFTSMAN: S.F
DATE NOV.'87
REVISIONS
FILE NO

SCALE 1:250 — Metres

FIG. 7

5800E

5900E

6000E

6100E

WEST PACKETTS

Gs vn

50

64

4675N

WATER RACE

? SHEARING

70

75

? SHEARING

79

Qz vn

PACKETTS WORKINGS

WATER RACE

Qz vn

85

64

Gs vns

4700N

5 cm

MN

GN

20°

LEGEND

- WEATHERED AND BLEACHED QUARTZITE AND PSAMMOPELITES
- WEATHERED AND BLEACHED PELITIC TO PSAMMOPELITIC ZONES
  - Typically altered to grey streaks within cream coloured clay/silt.
- STRIKE AND DIP OF GREY STREAKS IN FINER-GRAINED ZONES. (? BEDDING/SHEARING)
- VEIN ORIENTATION

Gs vn GREISEN VEIN

Qz vn QUARTZ VEIN

850156

87-2739 6106

GOLD FIELDS EXPLORATION PTY. LIMITED

E.L. 26/85

PACKETTS WORKINGS

INTERPRETIVE GEOLOGY

DRAWN BY : R.H.R.

DRAFTSMAN: G.B.

DATE OCT. '87

REVISIONS :

FILE NO.

SCALE 1: 1000 10 0 20 Metres

FIG. 8

E.L. 26/85

5 408 000mN

424 000mE

425 000mE

426 000mE

427 000mE

428 000mE

5 407 000mN

5 406 000mN

CETHANA ROAD

Gravel Pits

Underground Pipeline

DOLCOATH GRID

BASELINE

5000E 5100E 5200E 5300E 5400E 5500E 5600E 5700E 5800E 5900E 6000E 6100E 6200E 6300E 6400E 6500E 6600E 6700E

5400N 5200N 5000N 4800N 4600N 4400N 4200N

Penstock

Wilmot Power Station

Cethana Power Station

Spillway

Cethana Dam

Gravel Pit

Intake

CETHANA LAKE

Disused Quarry

Norfolk Creek

Un-named workings

Hulkers workings

Hulkers Lower North

Hulkers Lower South

Dolcoath Hill

DOLCOATH HILL ROAD

Gravel Pits

Aboriginal Relics

KEY:

5 cm

850157

INDEX TO ADJOINING MAPS

1-1	1-2	1-3
2-1	2-2	2-3
3-1	3-2	3-3

GOLD FIELDS EXPLORATION PTY LIMITED

87-2739 CETHANA

MOINA AREA - EL 26/85

SOIL GEOCHEMISTRY

ROSE DIAGRAM

6107

DRAWN BY	
DRAFTSMAN	
DATE	NOV. '87
REVISIONS	
FILE NO.	

SCALE 1:5000 METRES

FIG 9

s 406 000 m N

424 000 m E

425 000 m E

426 000 m E

427 000 m E

428 000 m E

s 405 000 m N

s 404 000 m N

Disused Mine

Pachins Mine

Lowson & Sons

Lowson Mine

Pig & whistle

Disused Mines

6400 E

6500 E

6600 E

4200 N

4400 N

DOLCOATH GRID

Dolcoath Mine

Dolcoath

Creek

LORINNA ROAD

CETHANA

LAKE

KEY:

N.B. Zn Threshold should be 250 ppm
No Zn anomaly on this sheet

5 cm

850158

LOCALITY MAP

GOLD FIELDS EXPLORATION PTY LIMITED

87-2739

MOINA AREA - EL 26/85

SOIL GEOCHEMISTRY

ROSE DIAGRAM

6108

SCALE 1 5000

METRES

DRAWN BY	
DRAFTSMAN	
DATE	NOV. '87
REVISIONS	
FILE NO.	
FIG 10	

425 200mE
425 400mE
425 600mE
425 800mE
s 406 800mN
s 406 600mN
s 406 500mN
DDH2 DG2
DDH2 DG1
ND-1
ND-2
ND-3
NARRAWA REWARD
NARRAWA
WEST HIGGS
HIGGS WORKINGS
HIGGS MINE
ROAD
Narrawa
Creek
RIDGE
5600E
5650E
5700E
5750E
5800E
5850E
5900E
5950E
6000E
6050E
6100E
4800N
4900N
5000N
5100N
5200N
KEY:
AS PPM 200
AU PPM 0.2
ZN PPM 250
CU PPM 250
PB PPM 250
850159
5 cm
LEGEND
MAJOR CREEK
MINOR CREEK
ROADS AND TRACK
OLD WORKINGS
COLLAPSED STOPES
MULLOCK HEAP
ADIT
WATER RACE
MINOR TRENCHES
TN MN GN
CETHANA 2-2/C-2
GOLD FIELDS EXPLORATION PTY LIMITED
87-2739 CETHANA
MOINA AREA - EL 26/85
SOIL GEOCHEMISTRY
ROSE DIAGRAM
6109
DRAWN BY
DRAFTSMAN
DATE NOV. '87
REVISIONS
FILE NO.
SCALE 1:1000
METRES
FIG. 11

E.L. 26/85

424 000mE
425 000mE
426 000mE
427 000mE
428 000mE
5 408 000mN
5 407 000mN
5 406 000mN

CETHANA ROAD

Underground Pipeline

DOLCOATH GRID

5000E 5100E 5200E 5300E 5400E 5500E 5600E 5700E 5800E 5900E 6000E 6100E 6200E 6300E 6400E 6500E 6600E 6700E

Penstock

Gravel Pits

Cethana Power Station

Spillway

Cethana Dam

Gravel Pit

Intake

Wilmot Power Station

CETHANA LAKE

Creek

Narrows

Norrowa

Un-named Workings (w)

Un-named Workings

Paskeffs Workings

DOLCOATH HILL

Dolcoath Hill

ROAD

Mullock heap

Saubi Mine

Squibs Open Cut

Blacks Lode

Blacks Lower Shafts

Powers Workings

Sayers Workings

Southern Wolfram Lode

DG-3

Disused Quarry

All Nations

ND-1 ND-2 ND-3

DDB2 DDB2 DDB2

Trenches

Narrows Reward Mine

Higgs Gold Mine

Edits

850160

5 cm

INDEX TO ADJOINING MAPS

1-1	1-2	1-3
2-1	2-2	2-3
3-1	3-2	3-3

GOLD FIELDS EXPLORATION PTY. LIMITED

87-2739 CETHANA
MOINA AREA - EL 26/85

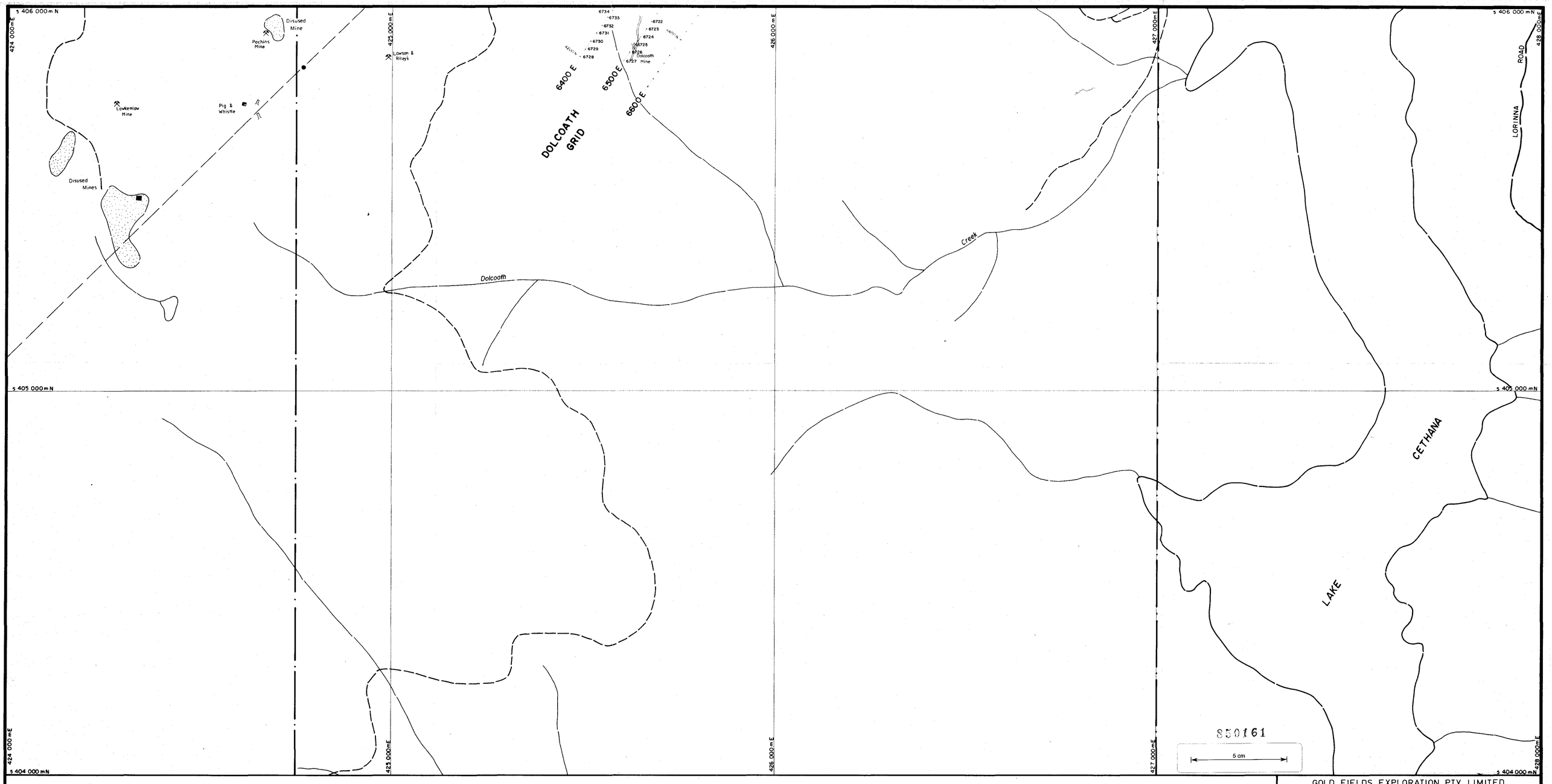
SAMPLE LOCATIONS (SOIL)

6110

DRAWN BY : R.H.R.
DRAFTSMAN :
DATE OCT. '87
REVISIONS :
FILE NO.

SCALE 1:5000 100 50 0 100 200 METRES

FIG. 12



INDEX TO ADJOINING MAPS

2-1	2-2	2-3
3-1	3-2	3-3
4-1	4-2	4-3

GOLD FIELDS EXPLORATION PTY. LIMITED

87-2739

MOINA AREA - EL 26/85

SAMPLE LOCATIONS

(SOIL)

6111

DRAWN BY	R.H.R.
DRAFTSMAN	G.B.
DATE	NOV.'87
REVISIONS	
FILE NO.	

SCALE 1:5000 — 100 50 0 100 200 METRES

FIG. 13

E.L. 26/85

5 408 000mN

424 000mE

425 000mE

426 000mE

427 000mE

428 000mE

5 407 000mN

5 406 000mN

CETHANA ROAD

Gravel Pits

Underground Pipeline

DOLCOATH GRID

5000E 5100E 5200E 5300E 5400E 5500E 5600E 5700E 5800E 5900E 6000E 6100E 6200E 6300E 6400E 6500E 6600E 6700E

Penstock

Wilmot Power Station

Cethana Power Station

Spillway

Cethana Dam

Gravel Pit

Intake

CETHANA LAKE

Disused Quarry

Creek

Narrawa

Un-named Workings (W)

DOLCOATH HILL

Gravel Pits

All Nations

Higgs Gold Mine

Mullock heap

Squib Mine

Squibs Open Cut

Pocketts Workings

Un-named Workings

Dolcoath Hill

Powers Working

Blacks Lode

Blacks Lower Shafts

Sayers Workings

Southern Wolframite Lode

ND-3.0

ND-2.0

DG-3

850162

5 cm

INDEX TO ADJOINING MAPS

1-1	1-2	1-3
2-1	2-2	2-3
3-1	3-2	3-3

GOLD FIELDS EXPLORATION PTY. LIMITED

87-2739 CETHANA

MOINA AREA - EL 26/85

SOIL GEOCHEMISTRY

GOLD

(IN P.P.M.)

6112

SCALE 1:5000 100 50 0 100 200 METRES

DRAWN BY : R.H.R.

DRAFTSMAN :

DATE OCT. '87

REVISIONS :

FILE NO.

FIG. 14

s 406 000 m N

424 000 m E

425 000 m E

426 000 m E

427 000 m E

428 000 m E

Disused Mine

Pachins Mine

Lawson & Rileys

Lowkemlow Mine

Pig & Whistle

Disused Mines

-0·008
-0·008
-0·083
-0·017
-0·008
-0·008
-0·008
-0·008
-0·008
-0·008
-0·008
-0·008
-0·008
-0·100
842 Dolcoath Mine

6400 E

6500 E

6600 E

DOLCOATH GRID

Dolcoath Creek

LORINNA ROAD

CETHANA

LAKE

s 405 000 m N

s 404 000 m N

850163

5 cm

INDEX TO ADJOINING MAPS

2-1	2-2	2-3
3-1	3-2	3-3
4-1	4-2	4-3

GOLD FIELDS EXPLORATION PTY. LIMITED

87-2739

MOINA AREA – EL 26/85

SOIL GEOCHEMISTRY

GOLD

(IN P.P.M.) 6113

SCALE 1: 5000

100 50 0 100 200 METRES

DRAWN BY : R.H.R.

DRAFTSMAN : G.B.

DATE : NOV.'87

REVISIONS :

FILE NO.

FIG. 15

425 200mE
425 400mE
425 600mE
425 800mE
5 406 800mN
5 406 600mN
NARRAWA REWARD
DDH2 DG2
DDH2 DG1
ND-1
ND-2
ND-3
NARRAWA
ROAD
Creek
RIDGE
WEST HIGGS
HIGGS WORKINGS
HIGGS MINE
5600E
5650E
5700E
5750E
5800E
5850E
5900E
5950E
6000E
6050E
6100E

LEGEND

- MAJOR CREEK
- MINOR CREEK
- ROADS AND TRACK
- OLD WORKINGS
- COLLAPSED STOPES
- MULLOCK HEAP
- ADIT
- WATER RACE
- MINOR TRENCHES

TN MN GN

CETHANA 2-2/C-2

850164

5 cm

GOLD FIELDS EXPLORATION PTY. LIMITED

CETHANA
MOINA AREA - EL 26/85
87-2739
SAMPLE LOCATIONS
(SOIL)
6114

DRAWN BY	R.H.R
DRAFTSMAN	
DATE	AUG. '87
REVISIONS	
FILE NO.	

SCALE 1:1000 — METRES

FIG. 16

155

425 200mE | 425 400mE | 425 600mE | 425 800mE

s 406 800mN

s 406 600mN

DD82 DG2

DD82 DG1

NARRAWA REWARD

ND-1

ND-2

ND-3

NARRAWA

ROAD

Narrawa Creek

RIDGE

WEST HIGGS

HIGGS WORKINGS

HIGGS MINE

5600E | 5650E | 5700E | 5750E | 5800E | 5850E | 5900E | 5950E | 6000E | 6050E | 6100E

5 cm

850165

ASSAY ORDER (ppm)

Au
Cu
Pb
Zn
As

LEGEND

- MAJOR CREEK
- MINOR CREEK
- ROADS AND TRACK
- OLD WORKINGS
- COLLAPSED STOPES
- MULLOCK HEAP
- ADIT
- WATER RACE
- MINOR TRENCHES

TN MN GN

CETHANA 2-2/C-2

GOLD FIELDS EXPLORATION PTY. LIMITED

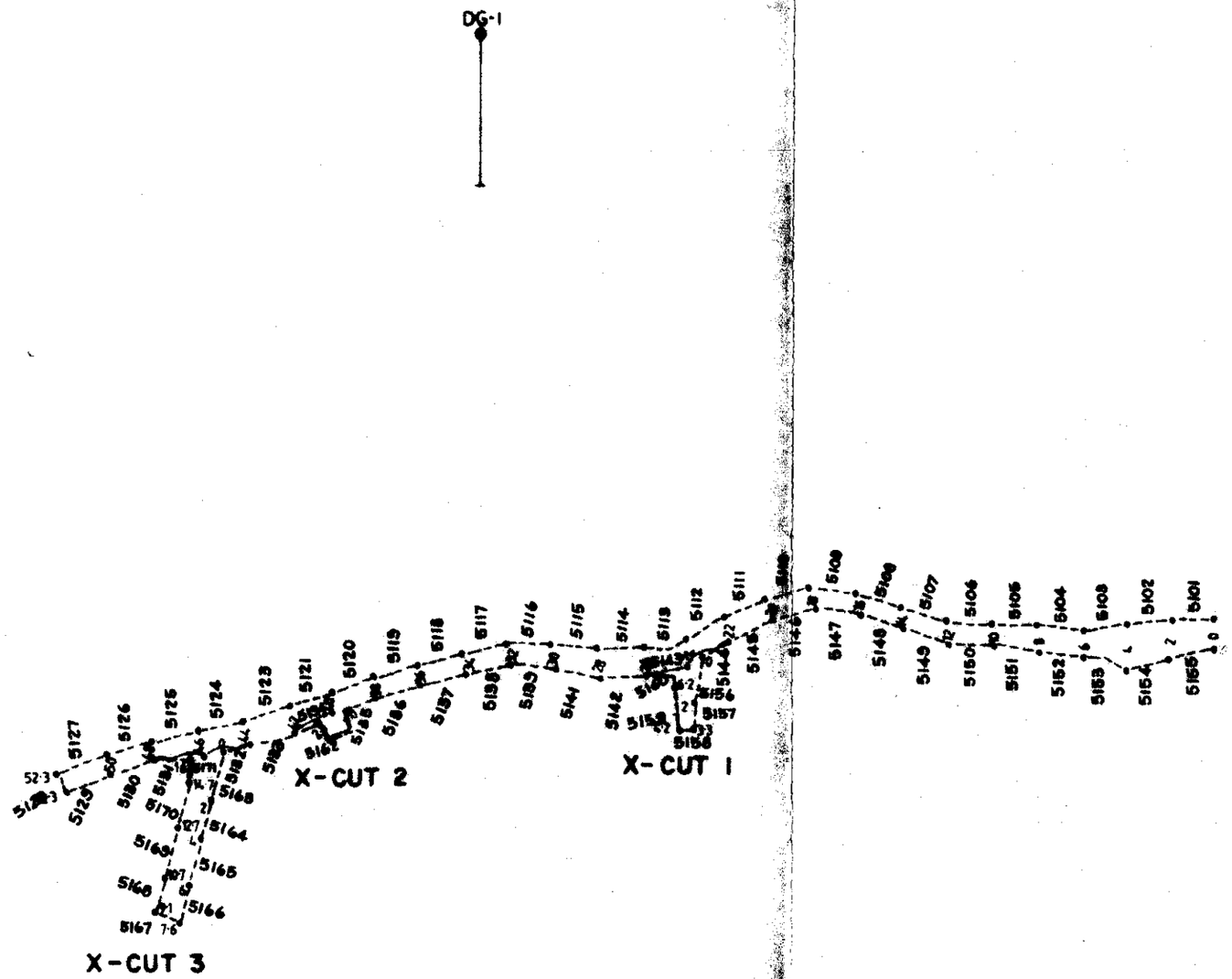
CETHANA
MOINA AREA - EL 26/85
87-2739
SOIL GEOCHEMISTRY
GOLD, COPPER, LEAD, ZINC AND ARSENIC
(IN P.P.M.)

SCALE 1:1000 — METRES

DRAWN BY : R.H.R.
DRAFTSMAN :
DATE : AUG.'87
REVISIONS :

FILE NO.

FIG. 17



*5950E / 5075N

5 cm

GN

850166

GOLD FIELDS EXPLORATION PTY. LIMITED

E.L 26/86

NARRAMBA REWARD

RIME

SAMPLE NUMBERS

SCALE 1:250

FILE NO.

FIG. 16

S7-2739

156

DG-1

X-CUT 2

X-CUT 1

X-CUT 3

*5950 E / 5075 N

5 cm

GN

850167

GOLD FIELDS EXPLORATION PTY. LIMITED

E.L. 26/85

NARRAWA REWARD MINE

GOLD GEOCHEMISTRY IN P.P.M.

SCALE 1:250

FILE NO.

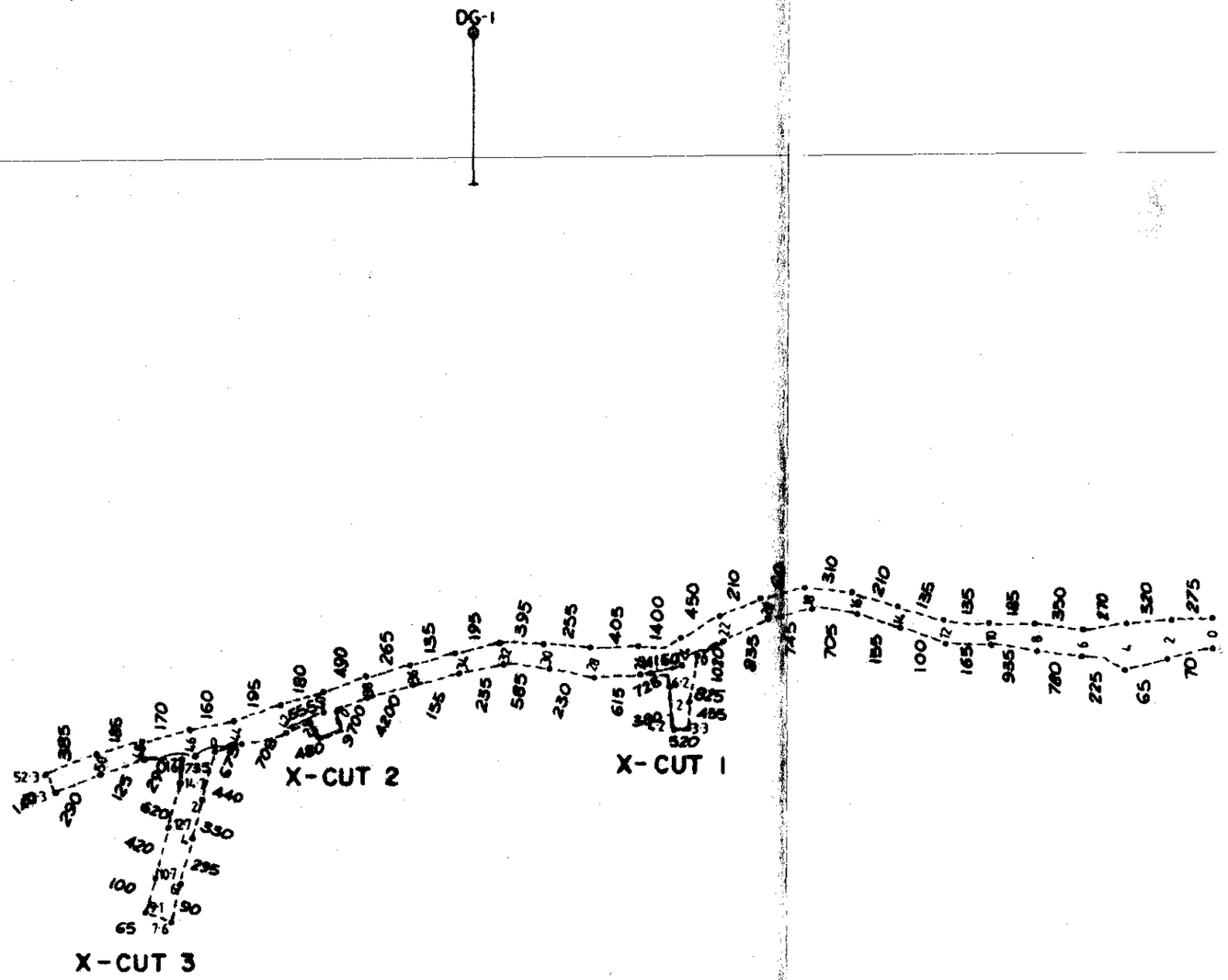
FIG. 19

87-2739

157

158

DG-1



*5950E / 5075N

GN

850168

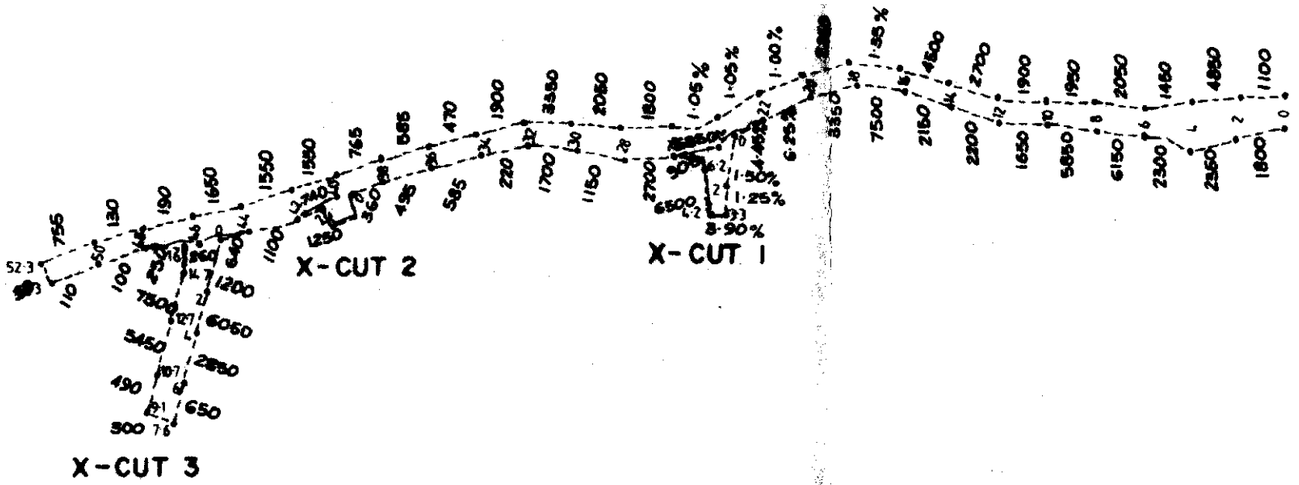
5 cm

GOLD FIELDS EXPLORATION PTY. LIMITED	
E.L. 26/85 NARRAWA REWARD MINE	DRAWN BY : R.R DRAFTSMAN: S.F DATE NOV. '87
COPPER GEOCHEMISTRY IN P.P.M.	FILE NO.
SCALE 1:250	FIG. 20

87-2739

159

DG-1



*5950 E / 5075 N

GN

5 cm

850169

GOLD FIELDS EXPLORATION PTY LIMITED

E.L. 26/85

NARRAWA REWARD MINE

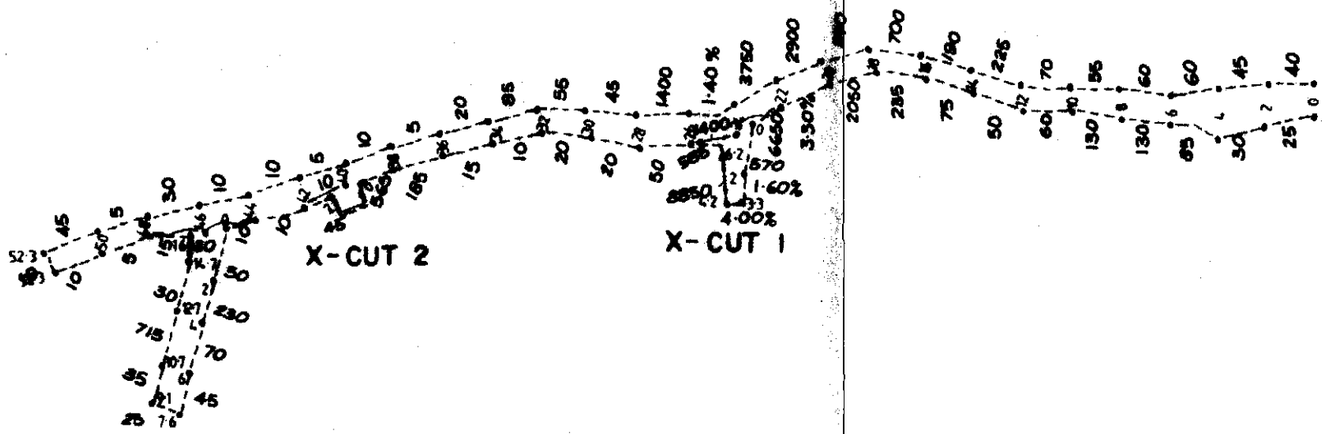
LEAD GEOCHEMISTRY IN P.P.M. UNLESS INDICATED

SCALE 1:250

FIG 21

160

DG-1



*5950 E / 5075 N

GN

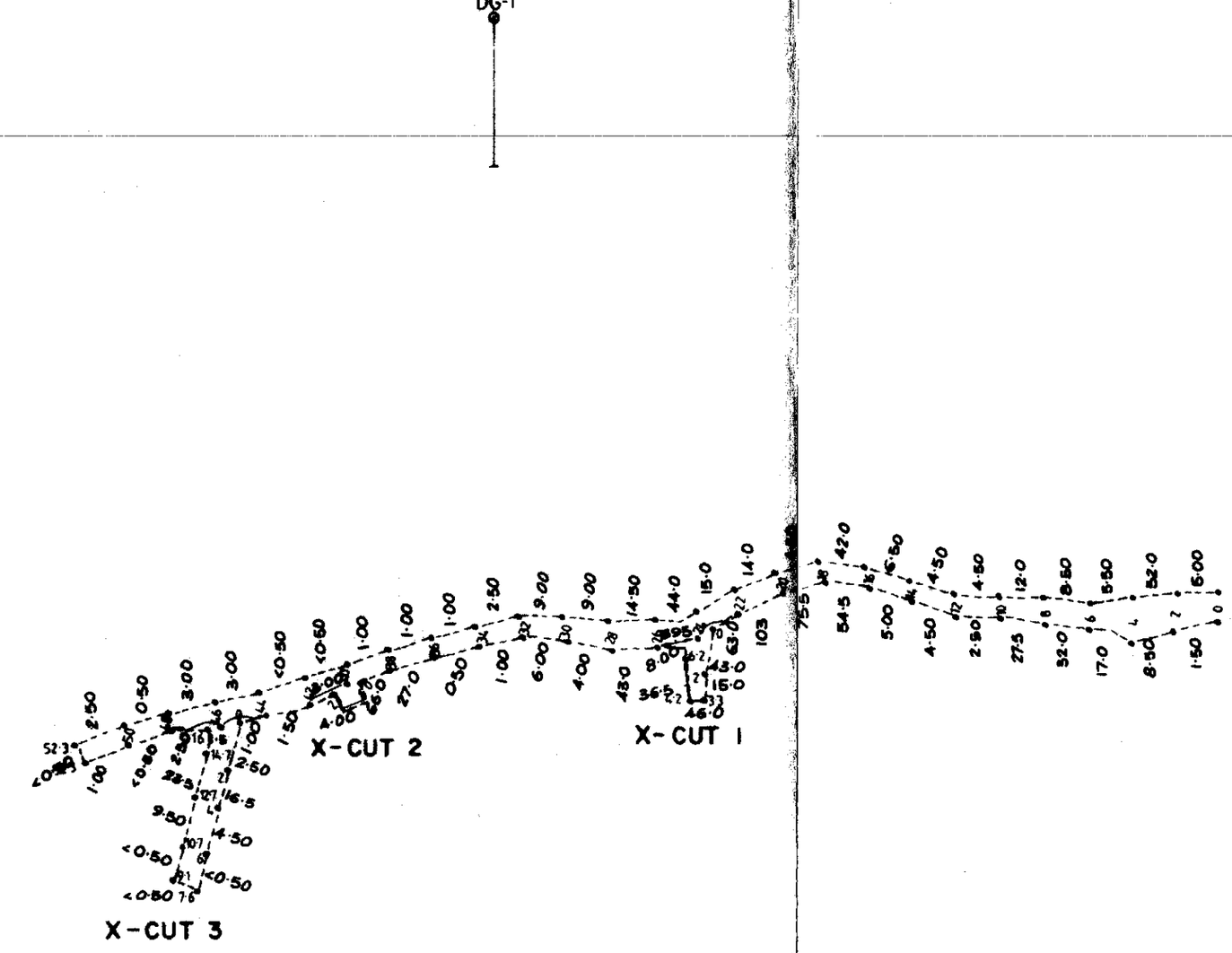
5 cm

850170

GOLD FIELDS EXPLORATION PTY. LIMITED	
E.L 26/85 NARRAWA REWARD MINE ZINC GEOCHEMISTRY IN R.P.M. UNLESS INDICATED	DRAWN BY: R.H. DRAFTSMAN: S.F. DATE: NOV: '87 REVISIONS: FILE NO. FIG. 22
SCALE 1:250	

87-2739

DG-1



*5950 E / 5075 N

GN

5 cm

850171

GOLD FIELDS EXPLORATION PTY. LIMITED

EL 26/85
NARRAWA REWARD
MINE

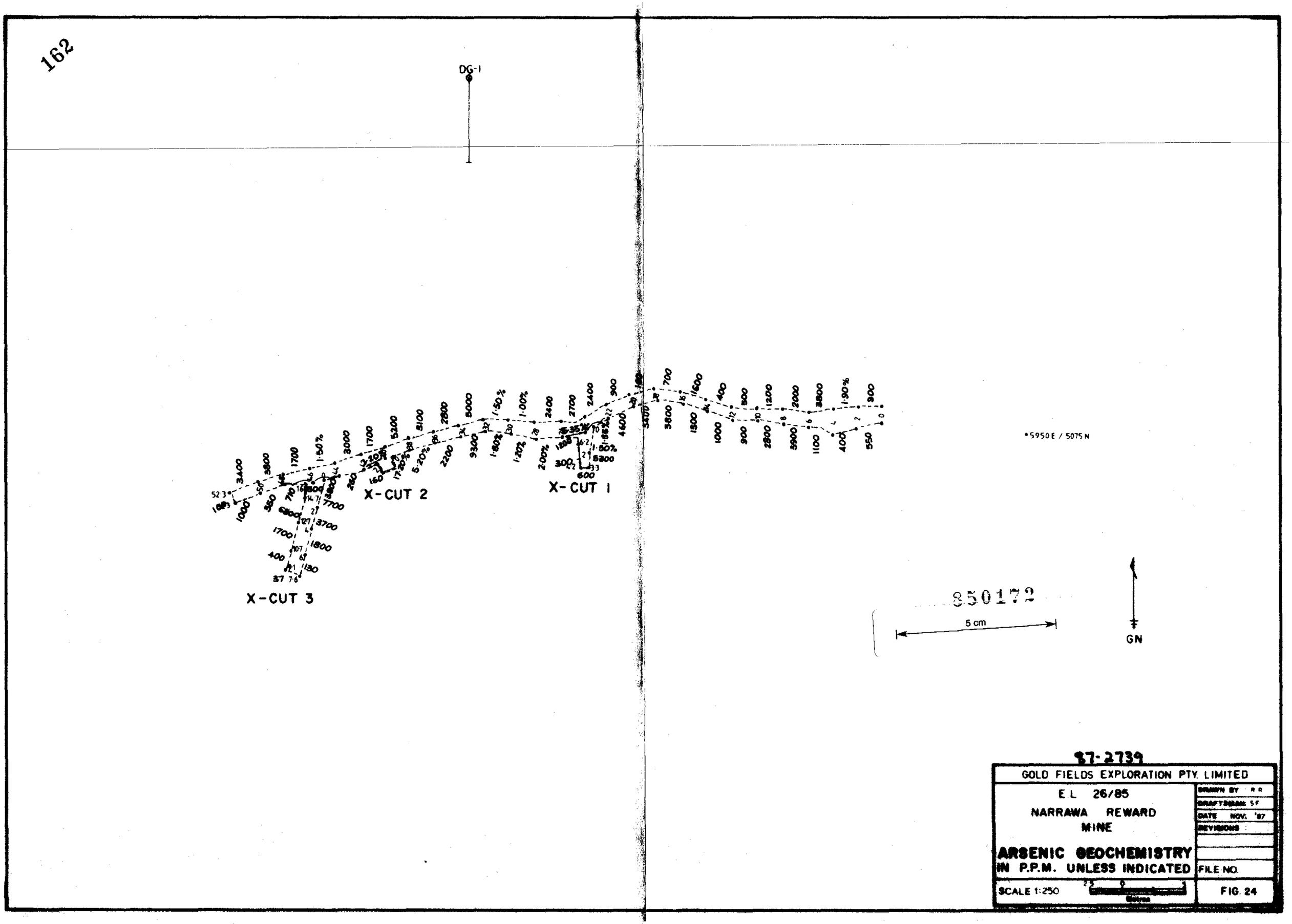
SILVER GEOCHEMISTRY
IN P.RM.

DRAWN BY : R.B
DRAFTSMAN: S.F
DATE NOV. '87
REVISIONS :
FILE NO.

SCALE 1:250

FIG. 23

87-2739



850172

87-2739

GOLD FIELDS EXPLORATION PTY. LIMITED	
E L 26/85 NARRAWA REWARD MINE	DRAWN BY R R DRAFTSMAN S F DATE NOV. '87 REVISIONS
ARSENIC GEOCHEMISTRY **IN P.P.M. UNLESS INDICATED**	FILE NO.
SCALE 1:250	FIG. 24

NARRAWA ROAD

Narrawa Creek

4975N

4950N

4925N

4900N

4875N

WEST HIGGS

ADIT 2

ADIT 1

C1 C2 C3 C4 C5 C6 C7 C8 C9

HIGGS WORKINGS

ADIT 1

C2 C3

SLUICED LEDGE

Lower Adit Portal

HIGGS MINE

C1

Collapsed

COLLAPSED STOPING

BENCH FILLED

HIGGS CREEK

TN MN GN

850173

5 cm

GOLD FIELDS EXPLORATION PTY. LIMITED

E.L. 26/85
HIGGS WORKINGS

SAMPLE LOCATIONS

87-2739

6115

DRAWN BY R.H.R.
DRAFTSMAN S.F.
DATE MAR. '87
REVISIONS
FILE NO.

SCALE 1:250 METRES

FIG. 25

5119

NARRAWA ROAD

Creek

Narrawa

ROAD

WEST HIGGS

ADIT 2

ADIT 1

C9

C7

C8

C5

C6

C4

C3

C2

C1

HIGGS WORKINGS

ADIT 1

C3

C2

LEDGE

Lower Adit Portal

C1

HIGGS MINE

C1

HIGGS CREEK

Collapses

COLLAPSED STOPING

BENEATH

PILLAR

SLUICED

C2

4975N

4950N

4925N

4900N

4875N

TN MN GN

5 cm

850174

GOLD FIELDS EXPLORATION PTY LIMITED

E.L. 26/85

HIGGS WORKINGS

GOLD GEOCHEMISTRY

IN P.P.M.

87-2739 6116

DRAWN BY	R.R.
DRAFTSMAN	S.F.
DATE	MAR.87
REVISIONS	
FILE NO.	
FIG.	26

SCALE 1:250 METRES

9119

NARRAWA ROAD

Creek

Narrawa

ROAD

WEST HIGGS

ADIT 2

ADIT 1

C1

C2

C3

C4

C5

C6

C7

C8

C9

HIGGS WORKINGS

ADIT 1

C2

SLUICED

LEDGE

Lower Adit Portal

C1

HIGGS MINE

C1

HIGGS CREEK

Collapses

COLLAPSED STOPING

BENEATH

4975N

4950N

4925N

4900N

4875N

TN MN GN

850175

5 cm

GOLD FIELDS EXPLORATION PTY LIMITED

E.L. 26/85

HIGGS WORKINGS

LEAD GEOCHEMISTRY

IN P.P.M.

87-2739

6117

DRAWN BY	R.R.
DRAFTSMAN	S.F.
DATE	MAR.87
REVISIONS	
FILE NO.	

SCALE 1:250 METRES

FIG. 27

6117

NARRAWA ROAD

Narrawa Creek

WEST HIGGS

ADIT 2

ADIT 1

C9

C7

C8

C6

C5

C4

C3

C2

C1

HIGGS WORKINGS

ROAD

C3

ADIT 1

C2

SLUICED

Lower Adit Portal

LEDGE

C1

HIGGS MINE

C1

HIGGS CREEK

Collapses

COLLAPSED STOPING

PILLAR

C2

4975N

4950N

4925N

4900N

4875N

850176

5 cm

GOLD FIELDS EXPLORATION PTY LIMITED

E.L. 26/85

HIGGS WORKINGS

ARSENIC GEOCHEMISTRY IN P.P.M.

87-2739

6118

FILE NO.

DRAWN BY R.R.

DRAFTSMAN G.B.

DATE APR.87

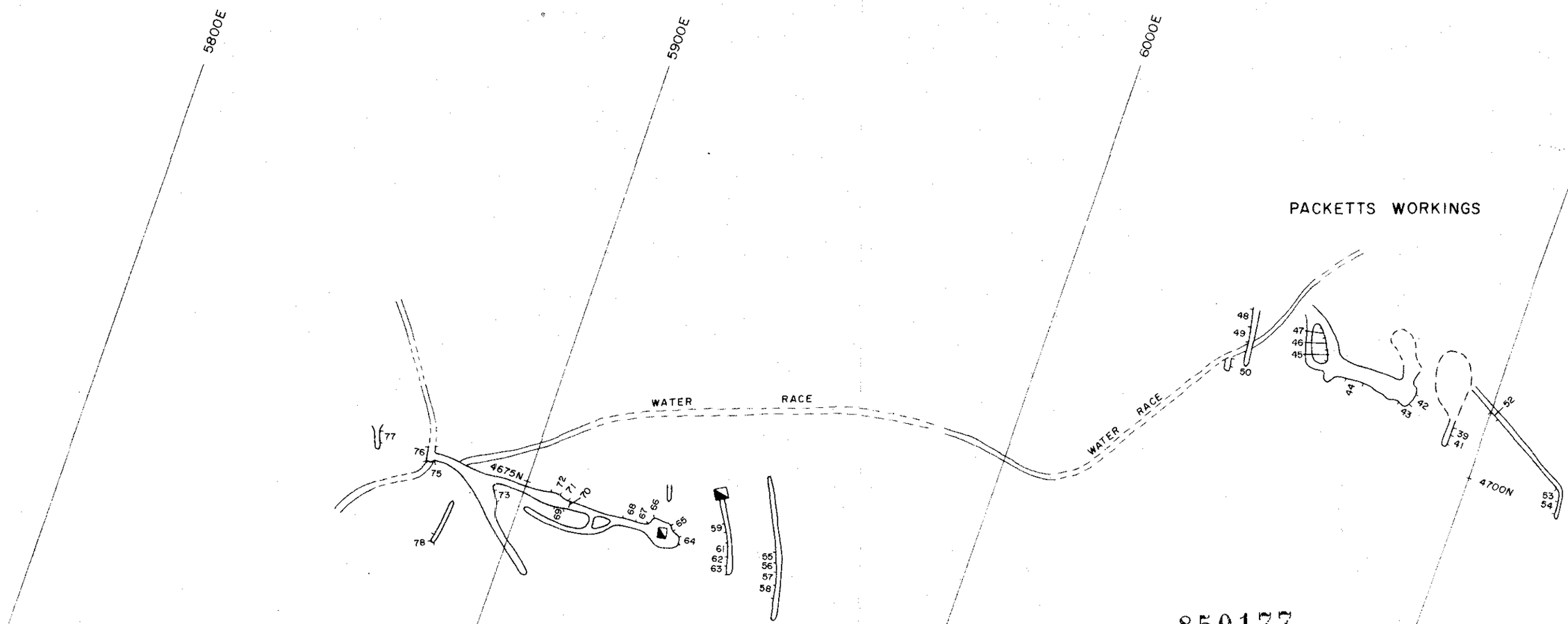
REVISIONS

SCALE 1:250

METRES

FIG. 28

6118



NOTE
ALL NUMBERS PREFIXED BY T78

MN GN 20°

GOLD FIELDS EXPLORATION PTY. LIMITED	
E.L. 26/85 PACKETTS WORKINGS **SAMPLE NUMBERS** 87-2739	DRAWN BY R.H.R. DRAFTSMAN: G.B. DATE NOV. '87 REVISIONS : FILE NO.
6119 SCALE 1: 1000 (10 0 20 Metres)	FIG. 29

5800E

5900E

6000E

6100E

WEST PACKETTS

PACKETTS WORKINGS

WATER RACE

WATER RACE

4675N

4700N

.62 <0.1 <0.1 .02 .11 .14 .10 .12 .09 .05 .06 .03 .06 .52 .07 .05 .02 .56 .32 .06 .08 .11

.42 .01 <0.1 .07 .07 .16 .16 .06 .03 .13 .03 .07 .53 .01

350178

5 cm

MN GN 20°

87-2739

GOLD FIELDS EXPLORATION PTY. LIMITED	
E.L. 26/85 PACKETTS WORKINGS **GOLD GEOCHEMISTRY** (In P.P.M.)	DRAWN BY : R.H.R. DRAFTSMAN: G.B. DATE OCT. '87 REVISIONS : FILE NO.
SCALE 1: 1000 10 0 20 Metres	FIG. 30

6120

E.L. 26/85

S 408 000mN

424 000mE

425 000mE

426 000mE

427 000mE

428 000mE

S 407 000mN

S 406 000mN

CETHANA

ROAD

Gravel Pits

Underground

Pipeline

DOLCOATH GRID

BASELINE

5000E 5100E 5200E 5300E 5400E 5500E 5600E 5700E 5800E 5900E 6000E 6100E 6200E 6300E 6400E 6500E 6600E 6700E

5400N 5200N 5000N 4800N 4600N 4400N

Penstock

Wilmot Power Station

Cethana Power Station

Spillway

Cethana Dam

Gravel Pit

Intake

CETHANA

LAKE

Disused Quarry

Creek

Narrawa

Un-named workings

Dolcoath Hill

ROAD

DOLCOATH

HILL

Gravel Pits

Adit

5 cm

850179

KEY:

INDEX TO ADJOINING MAPS

1-1	1-2	1-3
2-1	2-2	2-3
3-1	3-2	3-3

GOLD FIELDS EXPLORATION PTY LIMITED

CETHANA 87-2739

MOINA AREA - EL 26/85

ROCK GEOCHEMISTRY

ROSE DIAGRAM

6121

SCALE 1:5000

METRES

DRAWN BY

DRAFTSMAN

DATE NOV. '87

REVISIONS

FILE NO.

FIG 31

425 200mE
425 400mE
425 600mE
425 800mE
s 406 800mN
s 406 600mN
5600E
5650E
5700E
5750E
5800E
5850E
5900E
5950E
5980E
6000E
6050E
6100E
4800N
4900N
5000N
5100N
5200N
DD82 DG2
DD82 DG1
ND 1
ND 2
ND-3
NARRAWA
REWARD
WEST
HIGGS
HIGGS
WORKINGS
HIGGS MINE
ROAD
Narrawa
Creek
Creek
5 cm
KEY:
Bi PPM 75
Au PPM 0-2
Pb PPM 500
As PPM 500
Mo PPM 1000
Ag PPM 1000
850180
87-2739

LEGEND

- MAJOR CREEK
- MINOR CREEK
- ROADS AND TRACK
- OLD WORKINGS
- COLLAPSED STOPES
- MULLOCK HEAP
- ADIT
- WATER RACE
- MINOR TRENCHES

TN MN GN

CETHANA 2-2/C-2

GOLD FIELDS EXPLORATION PTY LIMITED

CETHANA
MOINA AREA - EL 26/85

ROCK GEOCHEMISTRY
ROSE DIAGRAM
6122

DRAWN BY	
DRAFTSMAN	
DATE	NOV. '87
REVISIONS	
FILE NO.	

SCALE 1:1000 — METRES

FIG. 32

E.L. 26/85

5 408 000mN

424 000mE

425 000mE

426 000mE

427 000mE

428 000mE

5 407 000mN

5 406 000mN

CETHANA ROAD

Gravel Pits

Underground Pipeline

DOLCOATH GRID

5000E 5100E 5200E 5300E 5400E 5500E 5600E 5700E 5800E 5900E 6000E 6100E 6200E 6300E 6400E 6500E 6600E 6700E

Penstock

Wilmot Power Station

Cethana Power Station

Spillway

Cethana Dam

Intake

Gravel Pit

CETHANA LAKE

Disused Quarry

Falls Creek

DD82 DG-1

DD82 DG-1 Trenches

ND-1

ND-2

ND-3 P

Narrawa Reward Hills

Narrawa

Mullock heap

Mine

Squib Mine

Squibs Open Cut

Blacks Lode

Blacks Lower Shafts

Sayers Workings

Southern Wolframite Lode

DG-3

Packetts Workings

Un-named Workings

Un-named Workings (W)

Dolcoath Hill

DOLCOATH HILL ROAD

Gravel Pits

All Nations

850181

5 cm

INDEX TO ADJOINING MAPS

1-1	1-2	1-3
2-1	2-2	2-3
3-1	3-2	3-3

GOLD FIELDS EXPLORATION PTY. LIMITED

CETHANA

MOINA AREA - EL 26/85

SAMPLE LOCATIONS (ROCK)

87-2739

6123

SCALE 1:5000

100 50 0 100 200 METRES

DRAWN BY : R.H.R.

DRAFTSMAN :

DATE OCT '87

REVISIONS :

FILE NO.

FIG. 33

425 200mE
425 400mE
425 600mE
425 800mE
s 406 800mN
s 406 600mN
4799
6004
4864
4865
4863
4868
6023
4872
4871
4869
4870
4873
DD82 DG2
DD82 DG1
4876
4875
4877
4655
4658
4654
4657
4670
4693
4692
4691
4690
4671
4689
4700
4688
4672
4685
4686
NARRAWA REWARD
ND-1
ND-2
ND-3
NARRAWA
Narrawa Creek
ROAD
RIDGE
4653
4652
4651
4650
4673
4695
4696
4697
4894
4882
6025
4896
4699
4857
WEST HIGGS
5600E
5650E
5700E
5750E
5800E
5850E
5900E
5950E
6000E
6050E
6100E
4897
4898
4899
6001
4858
4859
4851
4649
HIGGS WORKINGS
HIGGS MINE
4878
4676
4674
4675
4881
4677
4678
4681
4682
4683
4684
4692
4693
6064
6015
6011
6028
6027
6026
6029
6030
6031

850182

5 cm

LEGEND

- MAJOR CREEK
- MINOR CREEK
- ROADS AND TRACK
- OLD WORKINGS
- COLLAPSED STOPES
- MULLOCK HEAP
- ADIT
- WATER RACE
- MINOR TRENCHES

TN MN GN 12°E 20°E

CETHANA 2-2/C-2

	1	2	3	4
A				
B				
C				
D				

GOLD FIELDS EXPLORATION PTY LIMITED

CETHANA
MOINA AREA - EL 26/85
87-2739
SAMPLE LOCATIONS
(ROCK)
6124

DRAWN BY :
DRAFTSMAN :
DATE NOV. '87
REVISIONS :
FILE NO.

SCALE 1:1000 20 10 0 20 40 METRES

FIG. 34

E.L. 26/85

5 408 000mN

5 407 000mN

5 406 000mN

424 000mE

425 000mE

426 000mE

427 000mE

428 000mE

CETHANA ROAD

Gravel Pits

Underground Pipeline

DOLCOATH GRID

5000E 5100E 5200E 5300E 5400E 5500E 5600E 5700E 5800E 5900E 6000E 6100E 6200E 6300E 6400E 6500E 6600E 6700E

Penstock

Wilmot Power Station

Cethana Power Station

Spillway

Cethana Dam

Intake

Gravel Pit

CETHANA LAKE

Disused Quarry

Sayers Workings

Southern Wolframite Lode

Blacks Lower Shafts

Blacks Lode

Squibs Cross Cut

Squib Mine

Mullock heap

Gold Mine

Narrawa Reward Mine

Trenches

ND-1

ND-2

ND-3

ND-3P

DDRDG-1

DDRDG-2

DG-3

Narrawa

Creek

Un-named Workings (W)

Un-named Workings

Packetts Workings

Dolcoath Hill

DOLCOATH HILL ROAD

Gravel Pits

All Nations

850183

5 cm

INDEX TO ADJOINING MAPS

1-1	1-2	1-3
2-1	2-2	2-3
3-1	3-2	3-3

GOLD FIELDS EXPLORATION PTY. LIMITED

CETHANA

MOINA AREA - EL 26/85

ROCK GEOCHEMISTRY

87-2739 GOLD

(IN P.P.M.)

6125

SCALE 1:5000 100 50 0 100 200 METRES

DRAWN BY : R.H.R.

DRAFTSMAN :

DATE NOV. '87

REVISIONS :

FILE NO.

FIG. 35

425 200mE
425 400mE
425 600mE
425 800mE
s 406 800mN
s 406 600mN
DD82 DG2
DD82 DG1
NARRAWA REWARD
ND-1
ND-2
ND-3
NARRAWA
Narrawa
ROAD
Creek
RIDGE
WEST HIGGS
HIGGS WORKINGS
HIGGS MINE
5600E
5630E
5700E
5750E
5800E
5850E
5900E
5950E
6000E
6050E
6100E
850184
5 cm

LEGEND

- MAJOR CREEK
- MINOR CREEK
- ROADS AND TRACK
- OLD WORKINGS
- COLLAPSED STOPES
- MULLOCK HEAP
- ADIT
- WATER RACE
- MINOR TRENCHES

TN MN GN

CETHANA 2-2/C-2

GOLD FIELDS EXPLORATION PTY. LIMITED

CETHANA
MOINA AREA - EL 26/85

ROCK GEOCHEMISTRY GOLD (IN P.P.M.)

87-2739

DRAWN BY :
DRAFTSMAN :
DATE NOV. '87
REVISIONS :
FILE NO.
FIG. 36

SCALE 1:1000 20 40 0 20 40 METRES

6126

E.L. 26/85

424 000mE | 425 000mE | 426 000mE | 427 000mE | 428 000mE

5 408 000mN

5 407 000mN

5 406 000mN

CETHANA ROAD

Gravel Pits

Underground Pipeline

DOLCOATH GRID

5000E 5100E 5200E 5300E 5400E 5500E 5600E 5700E 5800E 5900E 6000E 6100E 6200E 6300E 6400E 6500E 6600E 6700E

VLF

No VLF

Penstock

Wilmot Power Station

Cethana Power Station

Spillway

Cethana Dam

Gravel Pit

Intake

CETHANA LAKE

Disused Quarry

Creek

Narrawa

DD82 DG-2

DD82 DG-1

Trenches

ND-1

ND-2

ND-3

Hughes Gold Mine

Mullock heap

Squib Zone

Squib Mine

Squibs Open Cut

Blacks Lower Shafts

Blacks Lode

Southern Wolframite Lode

Powers Workings

Sayers Workings

Packetts Workings

Un-named Workings

Un-named Workings (W)

DG-3

A

B

C

D

E

F

G

DOLCOATH HILL

Dolcooth Hill

Gravel Pits

All Nations

850185

5 cm

LEGEND

VLF response

UTEM response

Thicker line to show UTEM coverage

Utem Loop

Surveys for C.R.A (Flis, 1982)

INDEX TO ADJOINING MAPS

1-1	1-2	1-3
2-1	2-2	2-3
3-1	3-2	3-3

GOLD FIELDS EXPLORATION PTY. LIMITED

CETHANA

MOINA AREA - EL 26/85

87-2739

GEOPHYSICAL COMPILATION

(Ref.: GF/MG 87/03)

DRAWN BY:

DRAFTSMAN: G.M.B.

DATE: May '87

REVISIONS:

FILE NO. 6127

SCALE 1:5000 (100 50 0 100 200 METRES)

FIG. 37

E.L. 26/85

5 405 000 mN

5 cm

ISOMAGNETIC LINES

(total field)

1000 ..... 1000 gammas

200 ..... 200 gammas

..... 50 gammas

..... 25 gammas

..... magnetic depression

NOTE – Approximate position of Dalcoath Granite Grid indicated.

Magnetic Inclination within the survey area: 72°

Survey for C.R.A. (Flis.1982)

Dighem EM Anomalies

O Possible

× Grade 1

850186

87-2739

6128

GF/MG87/03

GOLD FIELDS EXPLORATION PTY LIMITED

MOINA AREA - EL 26/85

DIGHEM MAGNETICS AND EM ANOMOLIES

SCALE 1: 25 000 250 0 500 Metres

DRAWN BY :

DRAFTSMAN :

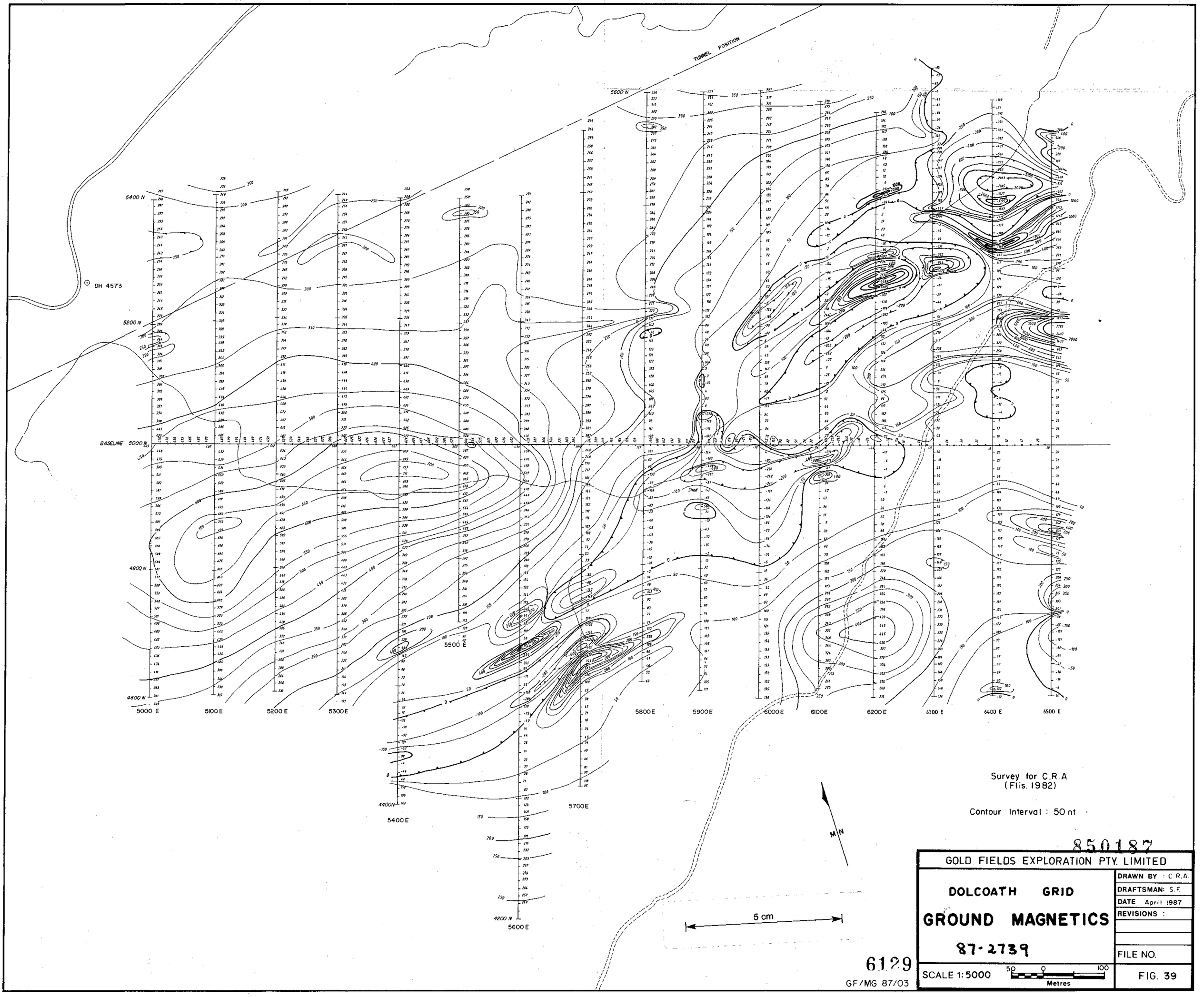
DATE April 1987

REVISIONS :

FILE NO

FIG. 38

A 12548



850187

GOLD FIELDS EXPLORATION PTY. LIMITED

DOLCOATH GRID	DRAWN BY : C.R.A.
GROUND MAGNETICS	DRAFTSMAN: S.F.
87-2739	DATE April 1987
	REVISIONS :
	FILE NO.
SCALE 1:5000 (50 0 100 Metres)	FIG. 39

6129

GF/MG 87/03

425 200mE

425 400mE

425 600mE

425 800mE

s 406 800mN

s 406 600mN

DD82 DG2

DD82 DG1

NARRAWA REWARD

NARRAWA

ND-1

ND-2

ND-3

ROAD

Narrawa Creek

WEST HIGGS

HIGGS WORKINGS

HIGGS MINE

5600E

5650E

5700E

5750E

5800E

5850E

5900E

5950E

6000E

6050E

5 cm

300° N.W.C.

090° strike / dip

850188

LEGEND

- INTENSE MAGNETIC LOW
- INTENSE MAGNETIC HIGH
- MAJOR CREEK
- MINOR CREEK
- ROADS AND TRACK
- OLD WORKINGS
- COLLAPSED STOPES
- MULLOCK HEAP
- ADIT
- WATER RACE
- MINOR TRENCHES

TN MN GN

CETHANA 2-2/C-2

6130

GOLD FIELDS EXPLORATION PTY. LIMITED

CETHANA

MOINA AREA - EL. 26/85

87-2739

GROUND MAGNETICS

DRAWN BY : R.H.R.

DRAFTSMAN: G.B.

DATE April 1987.

REVISIONS :

FILE NO.

SCALE 1: 1000 — 20 10 0 20 40 METRES

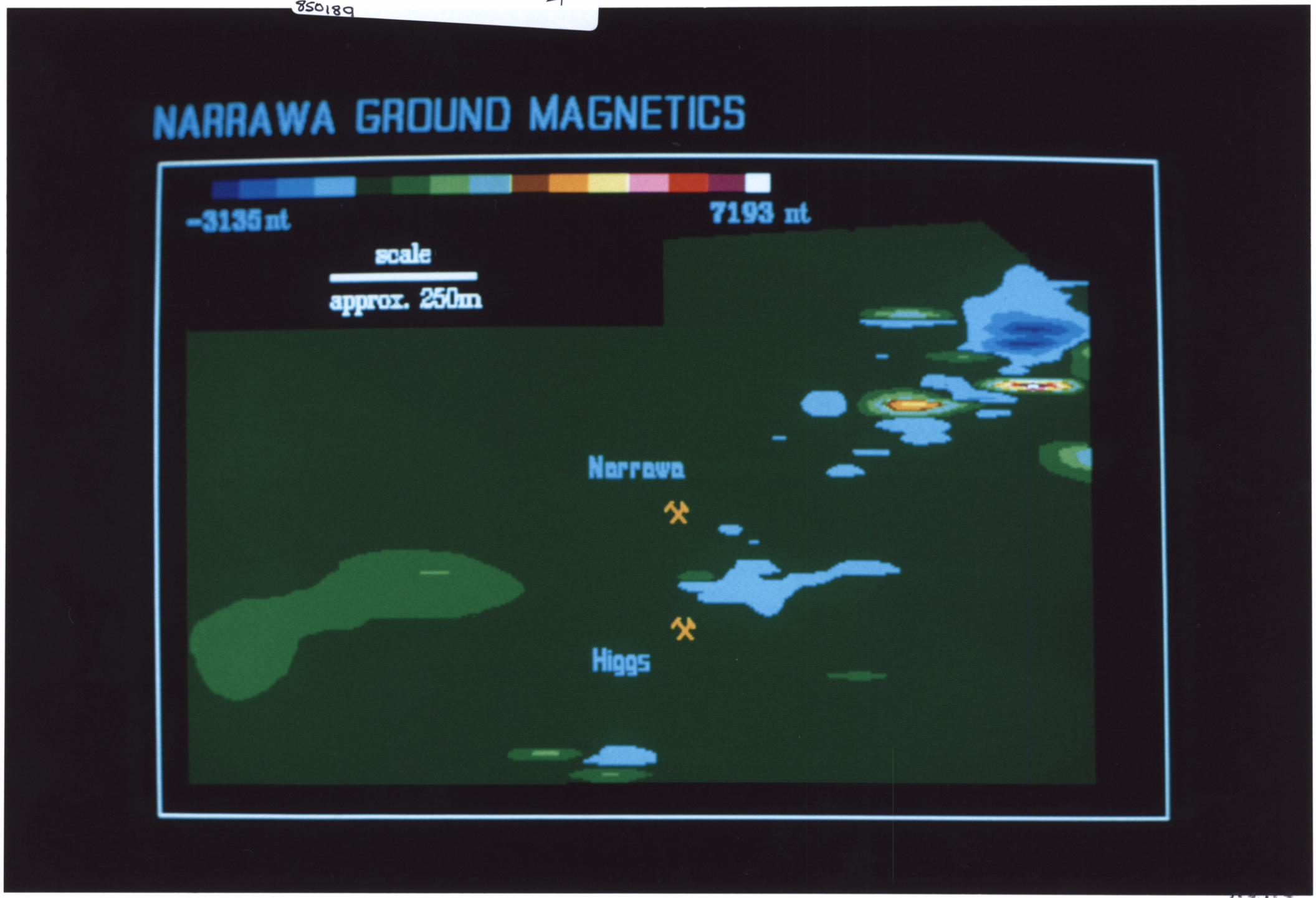
FIG. 40

87-2739

FIGURE 41

5 cm

850189

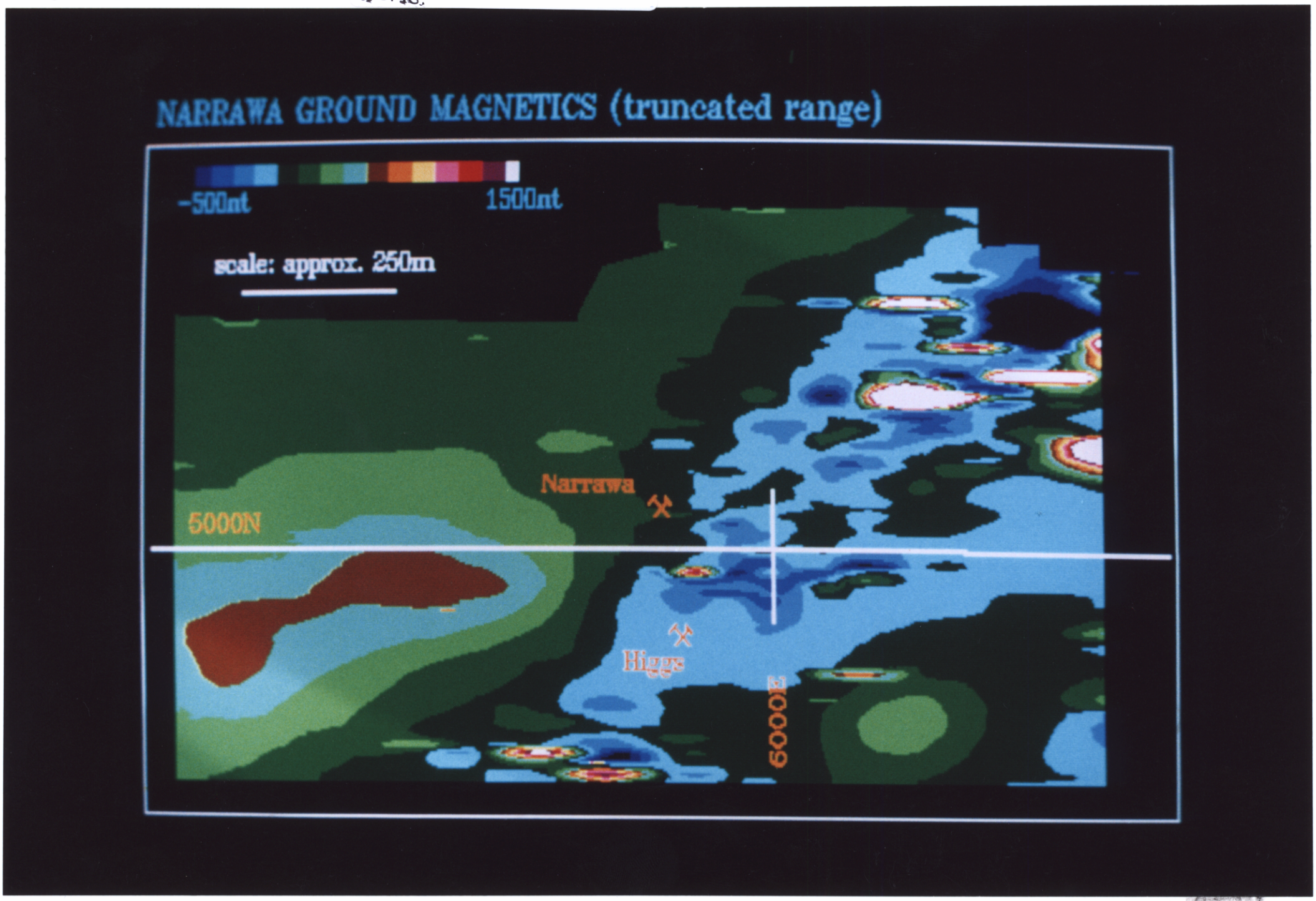


6131

FIGURE 42

5 cm

350190.



5600
5200
5200
5000
4800
4600

020°
300° N.W.C.
LINES
GRID

Plotting Convention

N

Survey for C.R.A.
(Flis, 1982)

Infill lines ; GFEL, 1987

Instrument ; Pheonix VLF-2

5200 E
5300E
5400E
5500E
5600 E
5650 E
5700E
5750E
5800E
5850E
5900E
5950E
6000E
6050E
6100E
6200E
6300E
6400E
6500E
6600E

5 cm

850191 87-2739

GOLD FIELDS EXPLORATION PTY. LIMITED

MOINA AREA - EL 26/85
DALCOATH GRID

VLF DIP ANGLE PROFILES

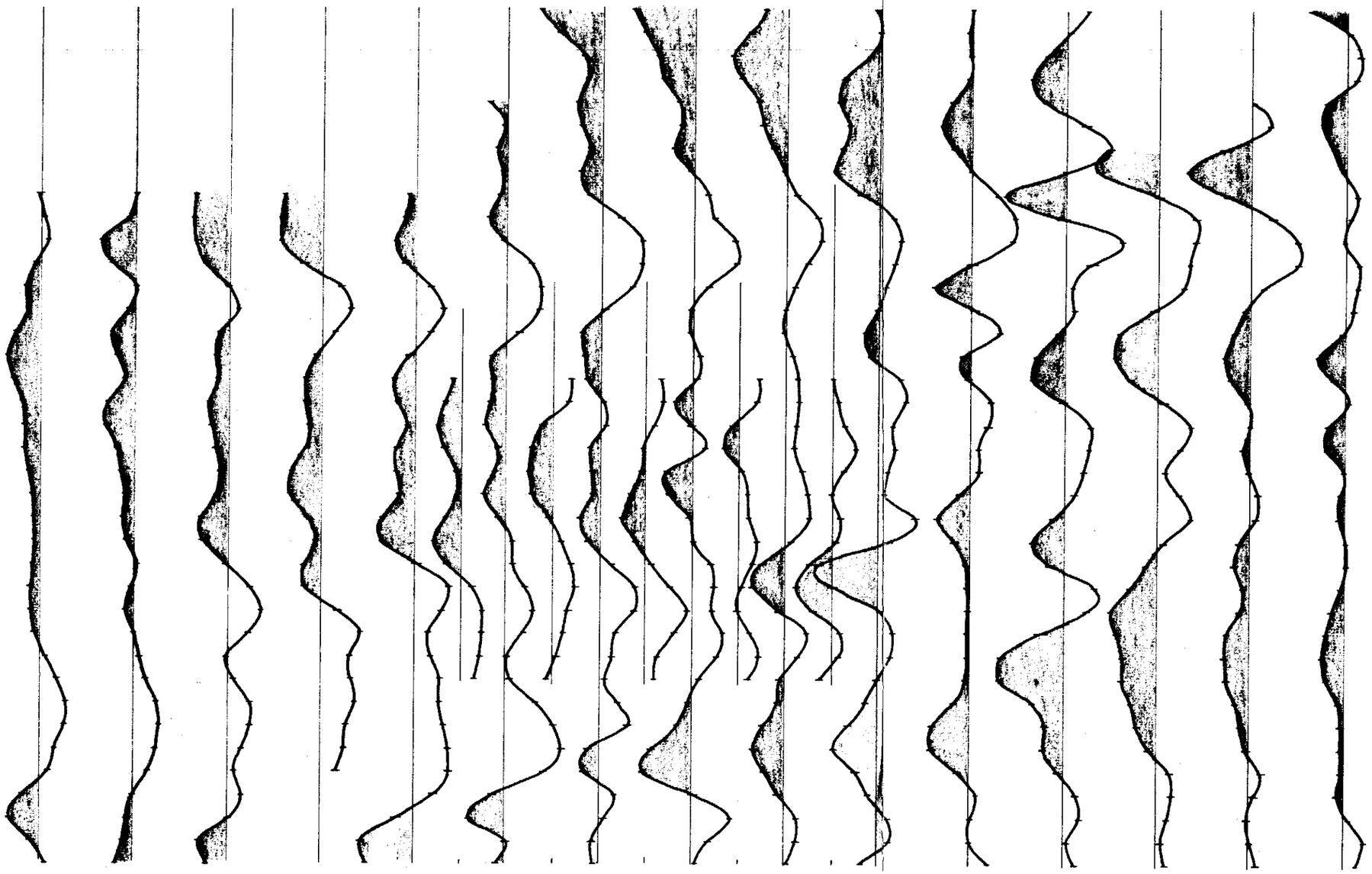
DRAWN BY : M.S.
DRAFTSMAN:
DATE April 1987
REVISIONS :
FILE NO.

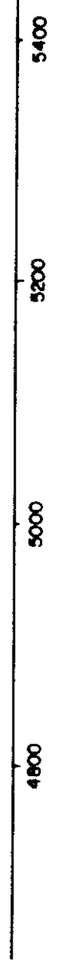
SCALE 1: 5000 (50 0 100 Metres)

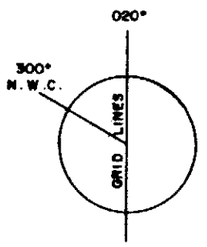
FIG. 43

6133
Ref: GF/MG87/03

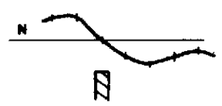
A 12548







Plotting Convention



Survey for C.R.A
(Flis. 1982)

Infill lines ; GFEL. 1987

Instrument ; Pheonix VLF-2

Data filtered after Fraser (1969)

850192 87-2739

5 cm

6134

Ref: GF/MG87/03

GOLD FIELDS EXPLORATION PTY. LIMITED

MOINA AREA EL 26/85
DALCOATH GRID

FILTERED VLF PROFILES

SCALE 1: 5000 (50 0 100 Metres)

DRAWN BY : M.G.
DRAFTSMAN:
DATE : April 1987
REVISIONS :

FILE NO.

FIG. 44

A 12548

E.L. 26/85

5 408 000mN

424 000mE

425 000mE

426 000mE

427 000mE

428 000mE

5 407 000mN

5 406 000mN

CETHANA ROAD

Gravel Pits

Underground Pipeline

DOLCOATH GRID

5000E 5100E 5200E 5300E 5400E 5500E 5600E 5700E 5800E 5900E 6000E 6100E 6200E 6300E 6400E 6500E 6600E 6700E

Penstock

Wilmot Power Station

Cethana Power Station

Spillway

Cethana Dam

Intake

Gravel Pit

Creek

Narrowa

Mullock heap

Squid Mine

Mullock heap

Blacks Lower Shafts

Blacks Lode

Southern wolframite lode

Old workings

Un-named Workings (W)

Un-named workings (W)

ROAD

DG-5

Dolcoath Hill

DOLCOATH HILL

Gravel Pits

All Nations

CETHANA LAKE

Disused Quarry

5 cm

850193

Survey for C.R.A. (Flis. 1982)

Infill lines; GFEL, 1987

Instrument; Pheonix VLF-2

Data filtered after Fraser (1969)

Contours 2, 5, 10, 20 and 30 degrees.

INDEX TO ADJOINING MAPS

1-1	1-2	1-3
2-1	2-2	2-3
3-1	3-2	3-3

GOLD FIELDS EXPLORATION PTY. LIMITED

CETHANA

MOINA AREA - EL 26/85

FILTERED VLF CONTOURS

87-2739

Ref: GF/MG87/03

6135

SCALE 1:5000 (100 50 0 100 200 METRES)

DRAWN BY	R.H.R.
DRAFTSMAN	G.B.
DATE	APR. '87
REVISIONS	
FILE NO.	
FIG.	45

425 200mE
425 400mE
425 600mE
425 800mE
s 406 800mN
s 406 600mN
DD82 DG2
DD82 DG1
NARRAWA REWARD
ND-1
NARRAWA
ND-2
ND-3
WEST HIGGS
HIGGS WORKINGS
HIGGS MINE
RIDGE
Creek
ROAD
Narrawa
5600E
5650E
5700E
5750E
5800E
5850E
5900E
5950E
6000E
6050E
5100E
5 cm
300° N.W.C.
900
MAG / MINS
850194

LEGEND

- VLF DIP CONTOURS
- UTEM CONDUCTORS
- MAJOR CREEK
- MINOR CREEK
- ROADS AND TRACK
- OLD WORKINGS
- COLLAPSED STOPES
- MULLOCK HEAP
- ADIT
- WATER RACE
- MINOR TRENCHES

DATA TRANSFORMED BY FRASER (1969) ALGORITH

TN MN GN 18° 20°

CETHANA 2-2/C-2

	1	2	3	4
A				
B				
C				
D				

GOLD FIELDS EXPLORATION PTY. LIMITED

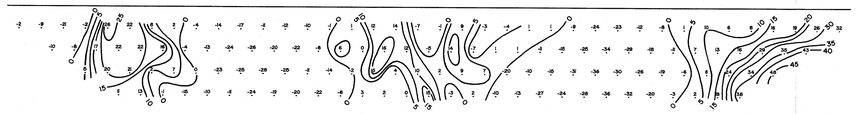
CETHANA
MOINA AREA - EL 26/85
87-2739
VLF DIP CONTOURS AND UTEM CONDUCTORS

DRAWN BY : J.R.B.
DRAFTSMAN : G.M.B.
DATE : April '87
REVISIONS :
FILE NO.

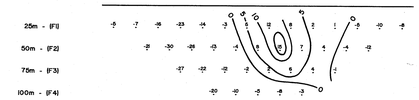
6136
MG/GF87/03
SCALE 1:1000
80 40 0 80 160 METRES
FIG. 46

4200 N 4300 4400 4500 4600 4700 4800 4900 5000 5100 5200 5300 5400 5500 N

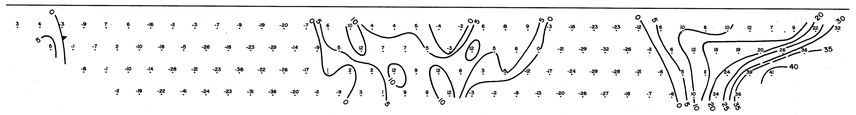
LINE 5900 E.



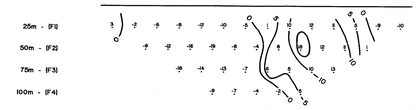
LINE 5850 E.



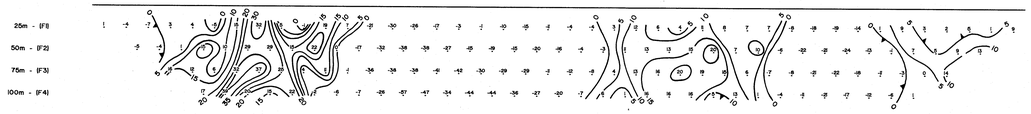
LINE 5800 E.



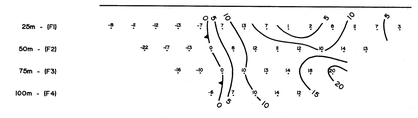
LINE 5750 E.



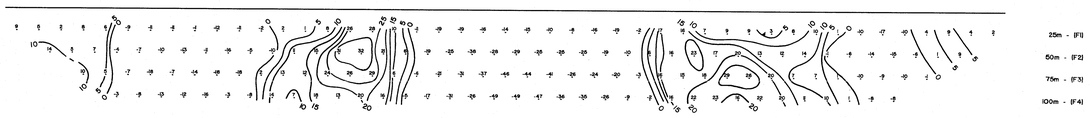
LINE 5700 E.



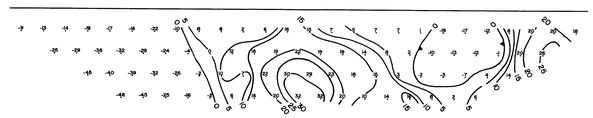
LINE 5650 E.



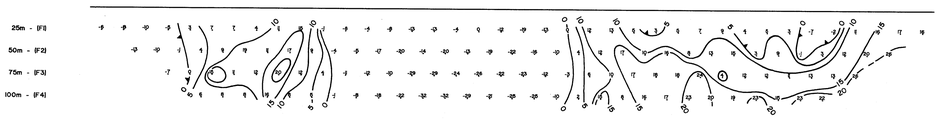
LINE 5600 E.



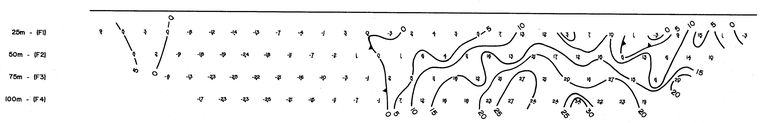
LINE 5500 E.



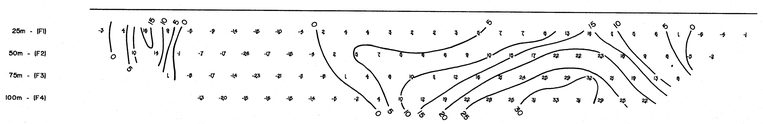
LINE 5400 E.



LINE 5300 E.



LINE 5200 E.

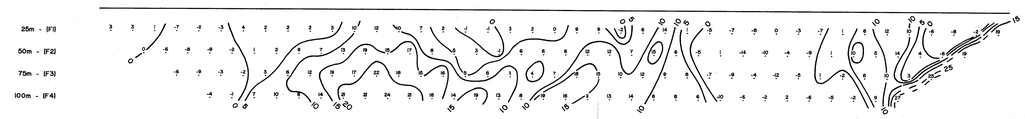


637

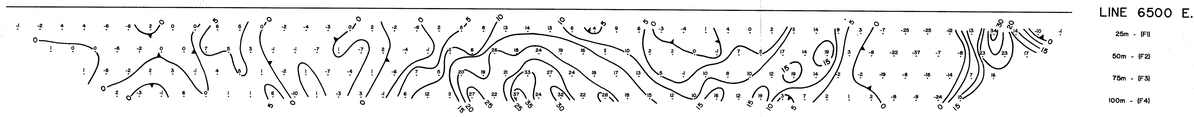
4200 N 4300 4400 4500 4600 4700 4800 4900 5000 5100 5200 5300 5400 5500 N

4300 N 4400 4500 4600 4700 4800 4900 5000 5100 5200 5300 5400 5500 N

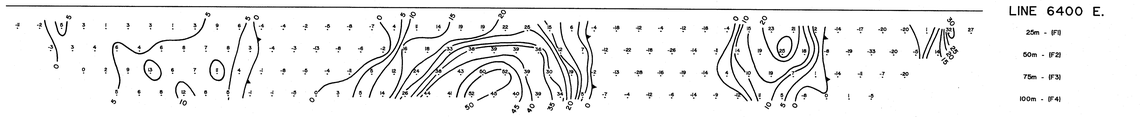
LINE 6600 E.



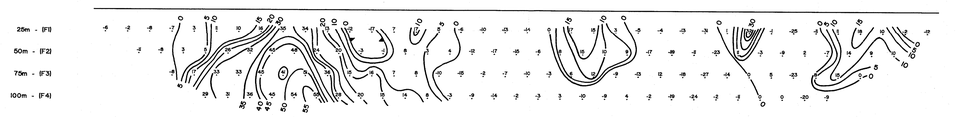
LINE 6500 E.



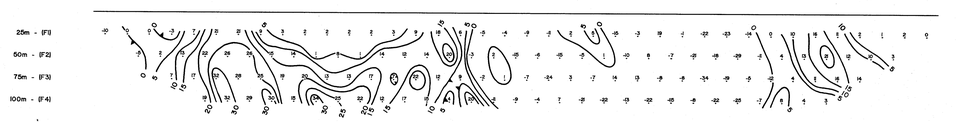
LINE 6400 E.



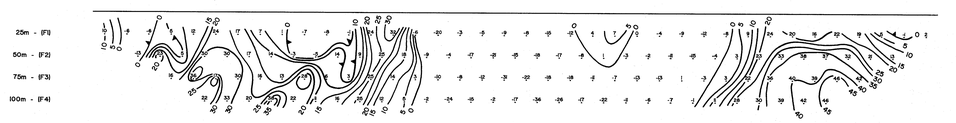
LINE 6300 E.



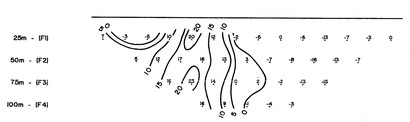
LINE 6200 E.



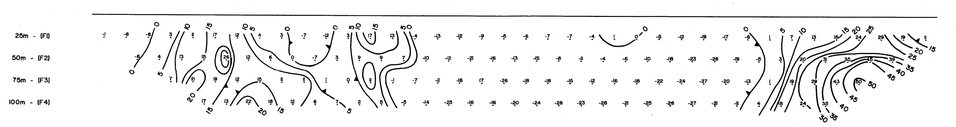
LINE 6100 E.



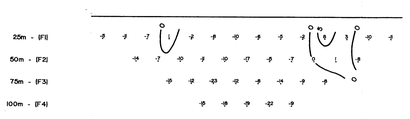
LINE 6050 E.



LINE 6000 E.



LINE 5950 E.



4300 N 4400 4500 4600 4700 4800 4900 5000 5100 5200 5300 5400 5500 N

850195

5 cm

NOTES:

Survey for CRA
(Flis, 1982)

Infill lines, GFEL 1987

Sections produced by four passes
of Fraser Filter
(after Fraser, 1981)

GOLDFIELDS EXPLORATION LIMITED

ST-2739

CETHANA - E.L. 26/85

DOLCOATH GRID

VLF
PSEUDOSECTIONS

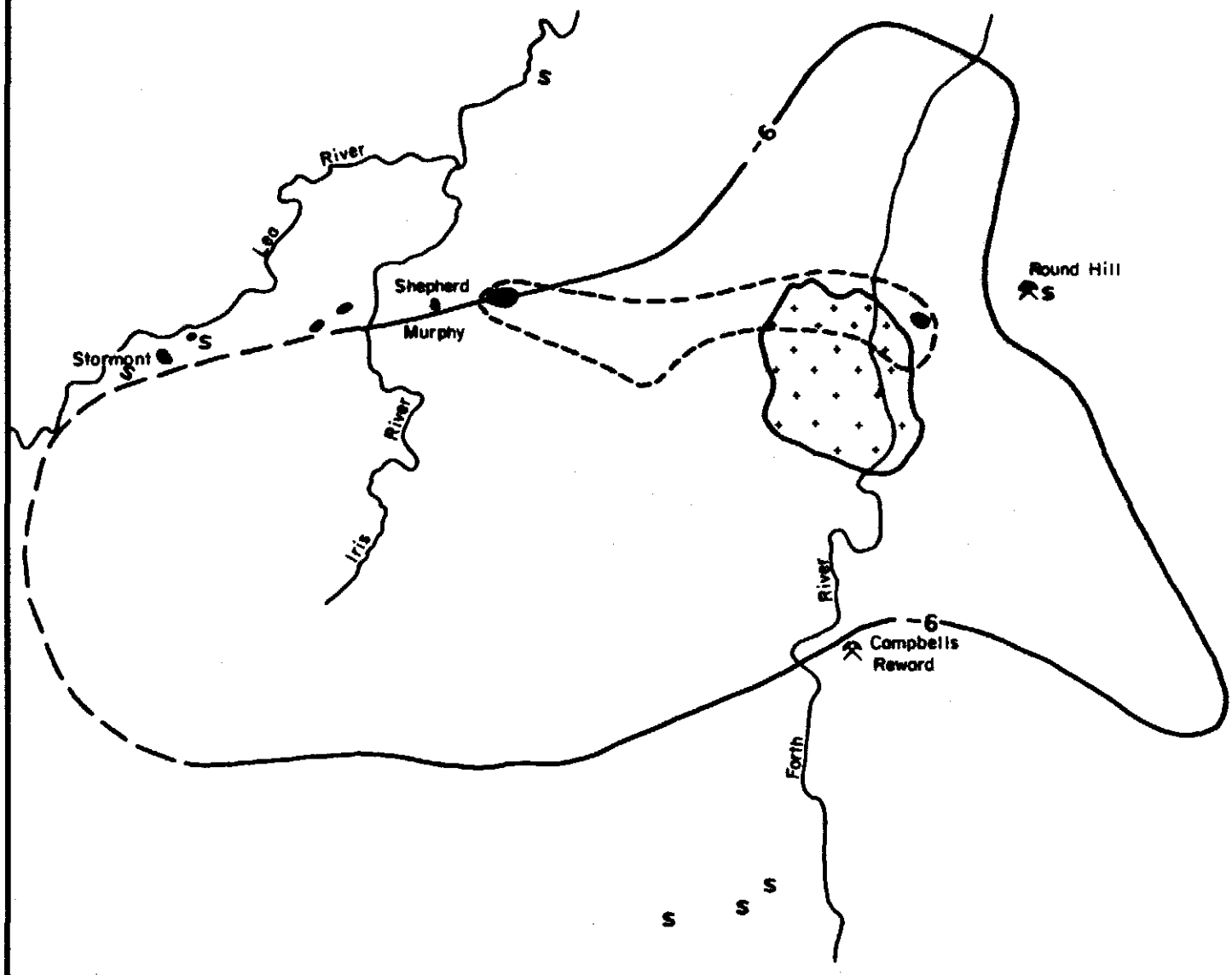
DRAWN BY :	J.B.
DRAFTSMAN:	T.D.S.
DATE :	July '87
REVISIONS :	
FILE No.	

SCALE 1:2500 50 0 50 100 METRES

FIG. 47

613

GF/MG87/03



850196

LEGEND

Wolfram - Cassiterite Zone

Skarn rock

S Sulphides associated with the Dolcoath Granite

-6 Approx. edge of granite as interpreted from gravity

5 cm

87-2759

GOLD FIELDS EXPLORATION PTY. LIMITED

MOINA AREA

EXTENT OF THE DOLCOATH GRANITE

DRAWN BY :
DRAFTSMAN:
DATE : April 1987.
REVISIONS :
FILE NO.

6138 SCALE : 1: 63,360

FIG. 48