Tech Info

Re 85/107

Request for sepias, 43 plans

Given that this relates to Enterprise Mine area & much activity is now ensuing, there is no urgency to get sepias as the data will be on C/F indefinitely — hence no need to reproduce it; also Pine Creek Goldfields people are very busy getting a mine into production — I am happy for sepias to come ~~at convenience of company~~ & this advice has been conveyed to the Chief Mine Geologist, Pat Stephenson

please mark your records accordingly

AJH

29/5/85

ANNUAL REPORT FOR GANDY'S HILL LEASE

For the Period November, 1980 to December, 1984

C. Cannard,

April, 1985.

Distribution :

Dept. of Mines
Sydney Office
Canberra Office
Brisbane Office
P.C.G. (2 copies)

CONTENTS

LIST OF FIGURES

1. INTRODUCTION

This report summarises exploration activities conducted on leases at Gandy's Hill, near Pine Creek (see Figure 1). The leases are GML 163A, GML 164A, GML 165A and GML 166A (see Figure 2).

The leases held by Enterprise Gold Mines N.L. (formerly Jingellic Minerals [N.T.] Pty. Ltd.) are subject to a joint venture agreement with Renison Goldfields Consolidated (or subsidiaries). Exploration activities have been managed by Gold Fields Exploration Pty. Ltd (a subsidiary of R.G.C.).

The report covers the period of joint venture agreement from November, 1980 until 31st December, 1984.

2. WORK UNDERTAKEN

The Gandy's Hill leases are part of the Enterprise Pine Creek Joint Venture. The heavy demand on manpower and time of the Enterprise Mine deposit and the fragmented ground tenure situation on Gandy's Hill have kept exploration on the Gandy's Hill leases at a low level.

2.1 Mine Grid

The surveyed baseline established over the Enterprise Mine area was extended through the Gandy's Hill leases by Gold Fields Exploration personnel. The baseline (grid north), which trends 318° True (314.75° Mag.), was pegged at 50 metre intervals. Crosslines every fifty metres were pegged at 50 metre intervals.

2.2 Aerial Photography

Colour aerial photography at 1:10,000 scale was flown over an area of 75 square kilometers, centred on Pine Creek. Topographic maps, conforming to the local grid, at 1:500, 1:1,000 and 1:5,000 scale were produced from the photography by Geospectrum.

2.3 Geological Mapping

Geological mapping at 1:500 scale was completed over the Gandy's Hill leases. Fact geology maps are included as Figures 3 - 6.

3. RESULTS

The Enterprise Anticline has been traced 2 km north of the Enterprise Mine area through the Gandy's Hill leases. In the Gandy's Hill area the Enterprise Anticline is an upright tight fold (limbs dip 60-80^{o}) with a shallow southerly plunge (5-15^{o}). Lithologies are mainly banded, cordierite spotted, siltstones with greywackes noted at the southern and northern ends of the Gandy's Hill leases.

Two V-shaped, saddle reef style, quartz reef outcrops and associated workings were noted (see Figures 5 & 6). One reef system has its closure near the top of Gandy's Hill (Gandy's Hill Reef), and the other about 500 metres north of Gandy's Hill (North Gandy's Hill Reef). Both of these reef systems have down-plunge potential for bulk mineable mineralisation.

Another quartz-limonite reef system and associated workings were mapped about 200 metres west of the Enterprise Anticline and Gandy's Hill Trig Station (see Figures 3 & 4). Two rock chip samples of the mineralisation returned grades of 14.4 g/t Au and 8.4 g/t Au.

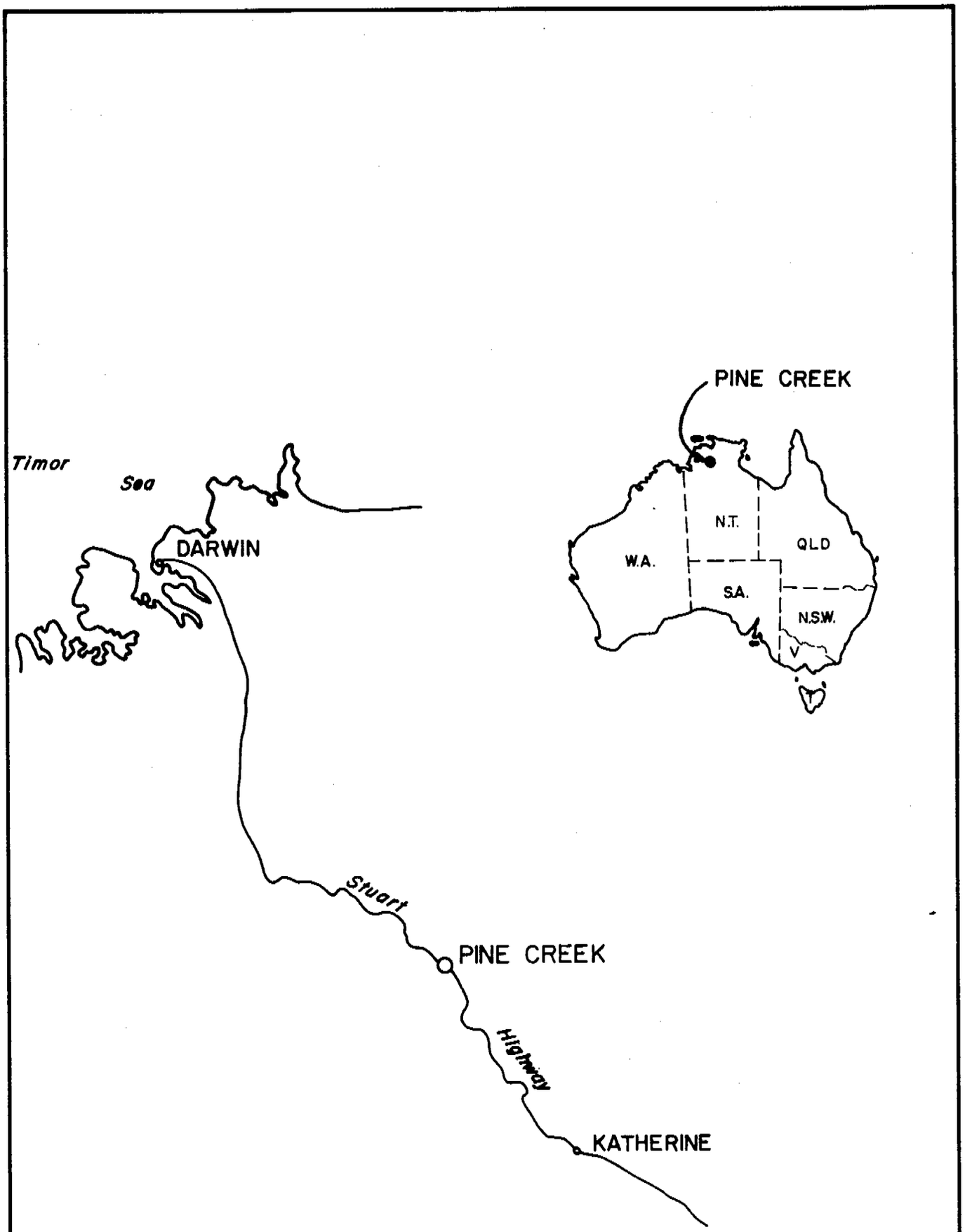
The relationship of this mineralisation to typical Enterprise style anticline hosted mineralisation is not clear. The mineralisation may be related to parasitic folding on the main anticline. Further work is clearly warranted. At present the main potential is for high grade, moderate tonnage mineralisation.

4. RECOMMENDATIONS

1. Gandy's Hill Reef - Most of the down plunge potential for this reef system lies in ground not held by the Joint Venture. No testing of this reef is proposed.

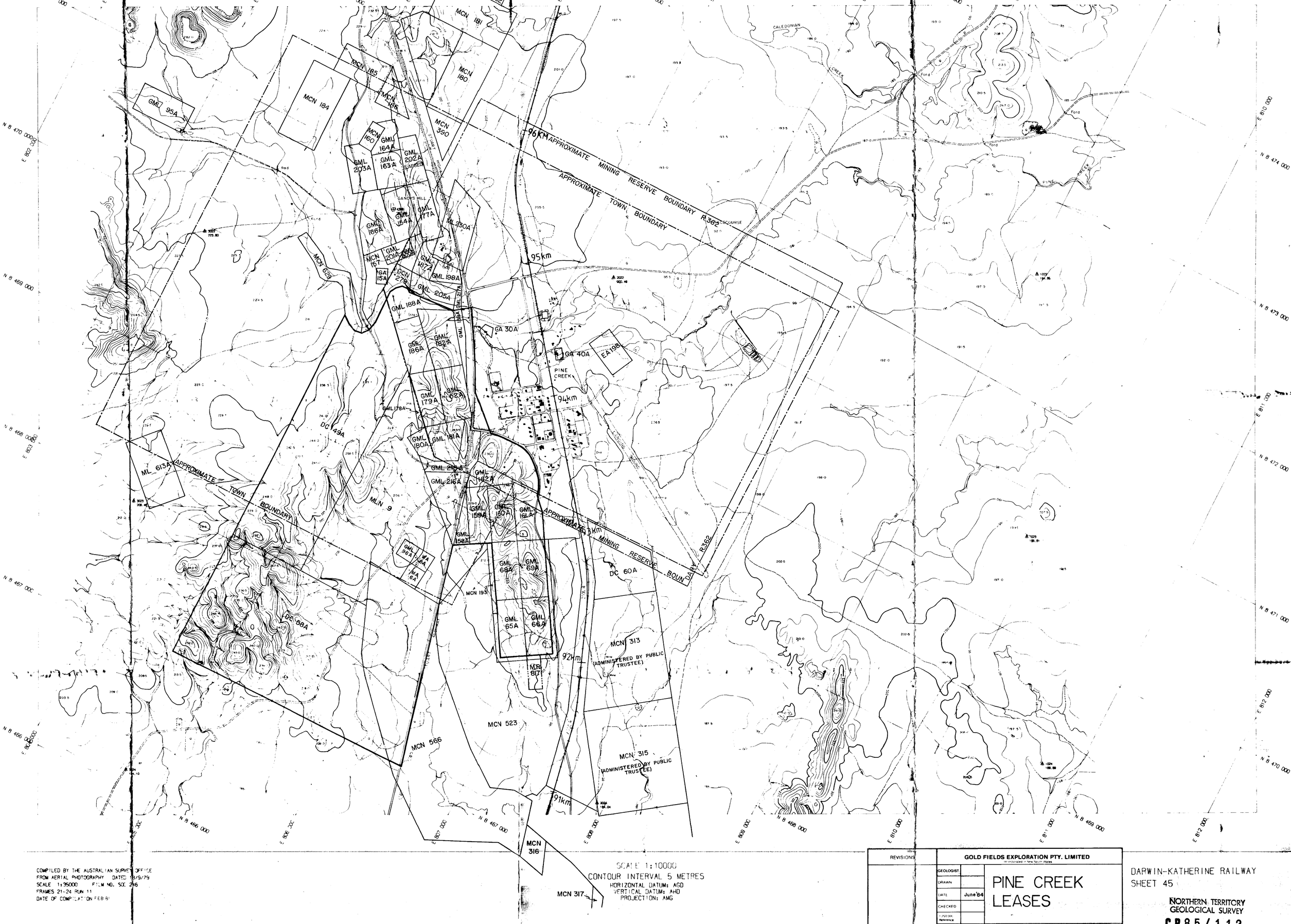
2. Gandy's Hill North Reef - It is recommended that the down-plunge potential of this reef system be tested. Four fifty metre diamond drill holes, two from the east and two from the west, should be sufficient for a first pass testing of the reef system. Sections 3400N and 3300N are suggested for testing.

3. Mineralisation west of Gandy's Hill - It is recommended that this mineralisation be tested by two 50 metres diamond drill holes on section 2950N. These holes should help determine the structure associated with this mineralisation.



GOLD FIELDS EXPLORATION PTY. LIMITED		
Geologist:	M. H.	PINE CREEK LOCATION PLAN
Drawn:	I. W.	
Date:	Oct.'84	
Checked:		
1,250,000 Reference:		Figure 1.

0 50 100 km



COMPILED BY THE AUSTRALIAN SURVEY OFFICE
FROM AERIAL PHOTOGRAPHY DATED 19/9/79
SCALE 1:35000 FILM NO. SOL 246
FRAMES 21-24 RUN 11
DATE OF COMPILATION FEB 81

SCALE 1:10000
CONTOUR INTERVAL 5 METRES
HORIZONTAL DATUM: AGD
VERTICAL DATUM: AHD
PROJECTION: AMG

REVISIONS

GOLD FIELDS EXPLORATION PTY. LIMITED
(a wholly owned subsidiary of The Broken Hill Proprietary Company Limited)

GEOLOGIST	
DRAWN	
DATE	June'84
CHECKED	
1:250K Reference	

PINE CREEK LEASES

SCALE 1:10,000 200 0 200 400 600m Figure 2

DARWIN-KATHERINE RAILWAY
SHEET 45

NORTHERN TERRITORY GEOLOGICAL SURVEY
CR85/112

267·0
△ GANDY'S HILL (T2)
RL 266·7m
215·3 W L
216·6
209·1 W L
MEDIUM
TIMBER
alluvial workings
GML 165A
234·8
234·8
235·0
234·9
233·6
232·5
Pole
234·2
233·5
224·3
218·3
218·2
210·6
204·3
13,000 N
12,900 N
12,800 N
12,700 N
12,600 N
12,500 N
11,000 E
11,100 E
11,200 E
11,300 E
11,400 E
8,471,000N
8,470,500N
8,470,750E
8,469,500N
8,469,750E

Working
Bedding dip and strike
Quartz vein dip and strike
Silt
Greywacke
Quartz

CONTOUR INTERVAL 1 METRE
HORIZONTAL DATUM : LOCAL MINE GRID
VERTICAL DATUM : AUSTRALIAN HEIGHT DATUM

GEO-SPECTRUM (AUSTRALIA)

TOPOGRAPHIC BASE COMPILED BY GEO-SPECTRUM (AUST.) IN AUGUST 1983 FROM AERIAL PHOTOGRAPHY FLOWN 19TH MAY, 1983.

SHEET INDEX

30-24-03	30-24-04	30-25-03
30-04-01	30-04-02	30-05-01
30-04-03	30-04-04	30-05-03

GN
TN
MN

NORTHERN TERRITORY GEOLOGICAL SURVEY.

CR85/112

GEOLOGIST :
DRAWN :
DATE :
CHECKED :
1:250,000 REFERENCE :

PINE CREEK PROJECT

GANDY'S HILL FACTUAL GEOLOGY

SCALE 1:500

10 0 10 20 30 METRES

Figure 3.

13,000 N
12,900 N
12,800 N
12,700 N
12,600 N
12,500 N
804,250 E
804,500 E
804,750 E
805,000 E
10,500 E
10,700 E
10,900 E
11,000 E
8,570,250 N
8,570,000 N
TO DARWIN
HIGHWAY
STUART
OLD
TO KATHERINE
MEDIUM TIMBER
alluvial workings
sample Q29573 0·31 g/t
sample Q29574 0·31 g/t
sample Q29576 14·4 g/t
sample Q29577 8·4 g/t
Qz vein
fe screa
cw screa
sl
gw
Working
Bedding dip and strike
Quartz vein dip and strike
Silt
Greywacke
Quartz
CONTOUR INTERVAL 1 METRE
HORIZONTAL DATUM : LOCAL MINE GRID
VERTICAL DATUM : AUSTRALIAN HEIGHT DATUM
GEO-SPECTRUM (AUSTRALIA)
TOPOGRAPHIC BASE COMPILED BY GEO-SPECTRUM (AUST.) IN AUGUST 1983 FROM AERIAL PHOTOGRAPHY FLOWN 19TH MAY, 1983.
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30-03-03 30-04-01 30-04-02
30-03-04 30-04-03 30-04-04
GN TN MN
NORTHERN TERRITORY GEOLOGICAL SURVEY
CR85/112
GEOLOGIST :
DRAWN :
DATE :
CHECKED :
1:250,000 REFERENCE :
PINE CREEK PROJECT
GANDY'S HILL
FACTUAL GEOLOGY
SCALE 1:500
10 0 10 20 30 METRES
Figure 4.

13,500 N
13,400 N
13,300 N
13,200 N
13,100 N
13,000 N
8,471,000 N
8,470,750 N
11,000 E
11,100 E
11,200 E
11,300 E
11,400 E
804,250 E
804,500 E
804,750 E
MEDIUM
TIMBER
MEDIUM
TIMBER
MEDIUM
TIMBER
232·1
225·6
216·3
253·1
252·8
225·6
240·6
234·3

Working
75 Bedding dip and strike
40 Quartz vein dip and strike
sl Silt
gw Greywacke
Quartz

CONTOUR INTERVAL 1 METRE
HORIZONTAL DATUM : LOCAL MINE GRID
VERTICAL DATUM :
AUSTRALIAN HEIGHT DATUM

GEO-SPECTRUM (AUSTRALIA)

TOPOGRAPHIC BASE COMPILED BY GEO-SPECTRUM (AUST.) IN MAY 1984 FROM AERIAL PHOTOGRAPHY FLOWN 19TH MAY, 1983.

SHEET INDEX

20-24-01	20-24-02	20-25-01
30-24-03	30-24-04	30-25-03
30-04-01	30-04-02	30-05-01

GN
TN
MN
41°38'30"
TRUE-MAGNETIC ANGLE 3°40'

NORTHERN TERRITORY GEOLOGICAL SURVEY

CR85/112

PINE CREEK PROJECT

GANDY'S HILL FACTUAL GEOLOGY

GEOLOGIST :
DRAWN :
DATE :
CHECKED :
1:250,000 REFERENCE :

SCALE 1:500

10 0 10 20 30 METRES

Figure 5.

14,000 N
13,900 N
13,800 N
8,471,250 N
804,000 E
13,700 N
13,600 N
13,500 N
11,000 E
11,100 E
11,200 E
11,300 E
11,400 E

MEDIUM TIMBER
MEDIUM TIMBER
MEDIUM TIMBER
MEDIUM TIMBER
MEDIUM TIMBER
MEDIUM TIMBER

226.4
229.6
229.3
230.6
230.4
231.1
230.4
231.2
222.6
234.4
233.2
233.5
218.5
233.1
225.2
233.1
226.4
216.8
242.9
242.6
246.2
223.3
223.6
224.6

Working
Bedding dip and strike
Quartz vein dip and strike
si Silt
gw Greywacke
Quartz

CONTOUR INTERVAL 1 METRE
HORIZONTAL DATUM : LOCAL MINE GRID
VERTICAL DATUM : AUSTRALIAN HEIGHT DATUM

GEO-SPECTRUM (AUSTRALIA)

TOPOGRAPHIC BASE COMPILED BY GEO-SPECTRUM (AUST.) IN MAY 1984 FROM AERIAL PHOTOGRAPHY FLOWN 19TH MAY, 1983.

SHEET INDEX

20-19-03	20-19-04	20-20-03
20-24-01	20-24-02	20-25-01
20-24-03	20-24-04	20-25-03

GN
TN 19N
41°38'30" TRUE-MAGNETIC ANGLE 9°45'

NORTHERN TERRITORY GEOLOGICAL SURVEY

CR85/112

GEOLOGIST :
DRAWN :
DATE :
CHECKED :
1:250,000 REFERENCE :

PINE CREEK PROJECT

GANDY'S HILL FACTUAL GEOLOGY

SCALE 1:500

10 0 20 40 60 80 100 METRES

Figure 6.