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DEFIANCE MINING NL

A.C.N. 009161522

ANNUAL REPORT FOR THE PERIOD

20 SEPTEMBER 1999 TO 19 SEPTEMBER 2000

FOR EL 3/97 – TOWER HILL

MINERAL RESOURCES
EL 3/97
See folio 72

00_4508

Annual report for the period 20 September 1999 to 19 September 2000 - EL 3/97 - Tower Hill
Defiance Mining NL
Jackson, D.G.

EL3/1997

Report No :
Date due : 6 September 2000
Author : DG Jackson
Accepted By: AG Keogh
Signature :
Copies : Defiance Mining (1)
: Connemarra Gold Mines (1)
: Mineral Resources Tasmania (1)

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1. Summary

Defiance Mining NL are exploring EL 3/97 at Mathinna in Joint Venture with Connemarra Gold Mines Pty Ltd, a wholly owned subsidiary of the Mining Contractor, Barmenco Pty Ltd.

The targets are high-grade gold bearing reefs containing more than 50,000 ozs and similar in style to the Main and Loanes Reefs at the New Golden Gate Mine in adjacent tenement 43M/89.

Since the Joint Venture was signed in September 1998, Defiance has mainly concentrated its field program within 43M/89, which is ~~just to the north of~~ EL 3/97.

Work completed in EL 3/97 during the reporting period has included:

- Collation of all the available open file stream geochemistry data
- Evaluation of all the available historical data within the tenement and selection of a number of targets for further work.

2. Introduction

EL 3/97 "Tower Hill", of approximately 249sq km, is centred on Tower Hill approximately 65 km east of Launceston. The licence, which is now nearing its third birthday, is due for renewal on 19 September 1999.

The tenement is held in the name of Connemarra Gold Mines Pty Ltd. Defiance Mining NL has signed a joint venture with Connemarra, whereby it can earn a 50% equity in this and other associated tenements, by spending \$1 million on exploration for high-grade gold reefs. The ground was previously held by Resolute Samantha Ltd as Tower Hill EL 22/92.

The licence is a mixture of private land on flatter areas along the South Esk River and on higher level plateaus and State Forest in adjacent hilly country. Access is generally excellent with a sealed road to Launceston and strategically placed gravel roads throughout the tenement.

3. Conclusions and Recommendations

- First pass evaluation drilling should be completed on the Buckland's, Alpine and Tower Hill Consolidated targets as soon as evaluation drilling in the New Golden Gate area is completed. All three targets are old workings mined in the late 19th century and unmined portions of the reefs are likely to produce gold at the joint venturers' target grade of 10-15 g/t Au.
- A BLEG stream sediment survey should be conducted over most tenement to highlight areas of interest and to allow non prospective areas to be relinquished.

4. Geology

EL 3/97 lies near the southern end of the 90-km long, north-north-west trending, line of gold deposits that extend from Mangana in the south to Lyndhurst on the north coast.

The gold deposits occur as auriferous quartz reefs, hosted in the Mathinna Beds, a folded sequence of Silurian-Ordovician age sediments. The Mathinna beds are intruded by younger, Devonian-Carboniferous age granites and are in part overlain by Permo-Triassic glacial marine sediments, Jurassic dolerites and Tertiary basalts.

The gold bearing veins are structurally controlled and occur in a range of orientations and forms within zones of shearing and tectonic deformation. Typical vein features are:

Width	0.1-1.0m	up to 10m
Length	10-100m	up to 350m
Depth	<100m	up to 580m
Grade	15-30g/t	cut off 10g/t
Strike	variable	NW to NE dominant
Dip	typically steep	70-80°
Mineralogy	quartz, arsenopyrite, pyrite	minor galena, chalcopyrite, sphalerite

This overall geological setting is very similar to the high grade, quartz vein style mineralisation in the slate belts of central and eastern Victoria which have historical production of approximately 80Mozs.

5. Summary of Previous Exploration

The first gold discovery in Tasmania was made at Mangana in 1852. As exploration extended to the north, further discoveries were made in the Lyndhurst-Mangana belt (including a number in Tower Hill EL 3/97) and at Lisle, Lefroy and Beaconsfield.

In this first phase of mining, production peaked sometime prior to 1884. In the Lyndhurst-Mangana zone, activity was concentrated on the southern section between Mangana and Alberton within a 70km by 5km belt of deformed sediments.

In about 1887, after the first phase of mining had largely been completed, a Mr A Loane discovered a reef (Loane's Reef) in the abandoned adit of the Golden Gate mine. Sinking of a shaft to evaluate this reef discovered an additional reef (Main Reef). These two reefs were subsequently mined down to about 280m depth and probably each produced somewhere between 50,000 and 100,000 ozs.

Further exploration at depth below, and adjacent to, these reefs discovered a further two reefs (East and West Reefs) which were mined from 250-470m depth. The New Golden Gate Shaft was subsequently extended to 549m.

The bulk of the 265,000 ozs of gold from the New Golden Gate mine was produced in the years 1888 to 1904. Intermittent production occurred through to 1929 when the workings were finally abandoned. New Golden Gate production represents approximately 16% of Tasmania's historical production.

Early mills were generally simple stamp and gravity mills, which recovered most of the coarse free gold, but gold associated with sulphides was lost. The New Golden Gate mill experimented with cyanide extraction of their sulphides with limited success.

An important feature of the area is that many of the quartz veins never outcropped and were only discovered during underground development aimed at other veins.

Modern day exploration activity has seen a number of companies hold tenure over the New Golden Gate mine and other mines in the Mathinna-Tower Hill-Mangana area, however, very few have carried out drilling programs in the area of the old mines.

Of the two more comprehensive programs, prior to the recent Defiance program, Epoch Minerals had a best intersection of 8m at 10.7g/t gold in the Central Reef at the New Golden Gate mine and Resolute Samantha Limited had best intersections of 7m at 2.4g/t gold in Mathinna township and 6m at 1.9g/t gold at the old Jubilee workings in the current Tower Hill EL 3/97. For both companies the target was shallow, large tonnage, open pit gold resources and because these did not look achievable, the programs were not continued.

A large number of old workings remain untested by drilling.

A more detailed summary of historical exploration is available in MacDonald (1996)

6. Summary of Work Completed

6.1 Stream Geochemical Data

All of the available open file stream geochemical data was purchased in digital form from Mineral Resources Tasmania and plotted on a number of 1:25,000 scale maps.

The available data set highlighted the lack of BLEG stream sediment sampling within the tenement with only a very limited number of samples being collected. Conventional minus 80 and 40 mesh stream sediment samples submitted for AAS or fire assay gold were also very sparsely located.

It is recommended that the tenement be BLEG stream sampled at approximately 1km sample spacing and following evaluation of the results that the non-prospective portions of the tenement be relinquished.

7. Proposed Future Program

As outlined above a program of stream sediment sampling is proposed over the whole of the Tower Hill tenement.

A program of reconnaissance holes on a number of regional prospects is also proposed. This program would test a number of targets in the Tower Hill EL 3/97 including the following.

- The Buckland and Alpine old workings that extend over 300m of strike and as outlined above produced good grades from the lowest production levels. Eight RC holes for a total of approximately 1000m of drilling are proposed as an initial test of these targets.
- The Tower Hill Consolidated old workings, which are the only known significant mineralised occurrence that could have provided the source of the alluvial gold recovered from the Majors Gully catchment. Surface grades at these workings were very good (~2ozs/t) however, deeper development was disappointing. This may have been as a result of either poor gold recoveries due to sulphides or a zone of depletion in the weathering profile. Field inspection has indicated that a RC drill program to test below these old workings could be completed with minimal environmental disturbance.

8. References

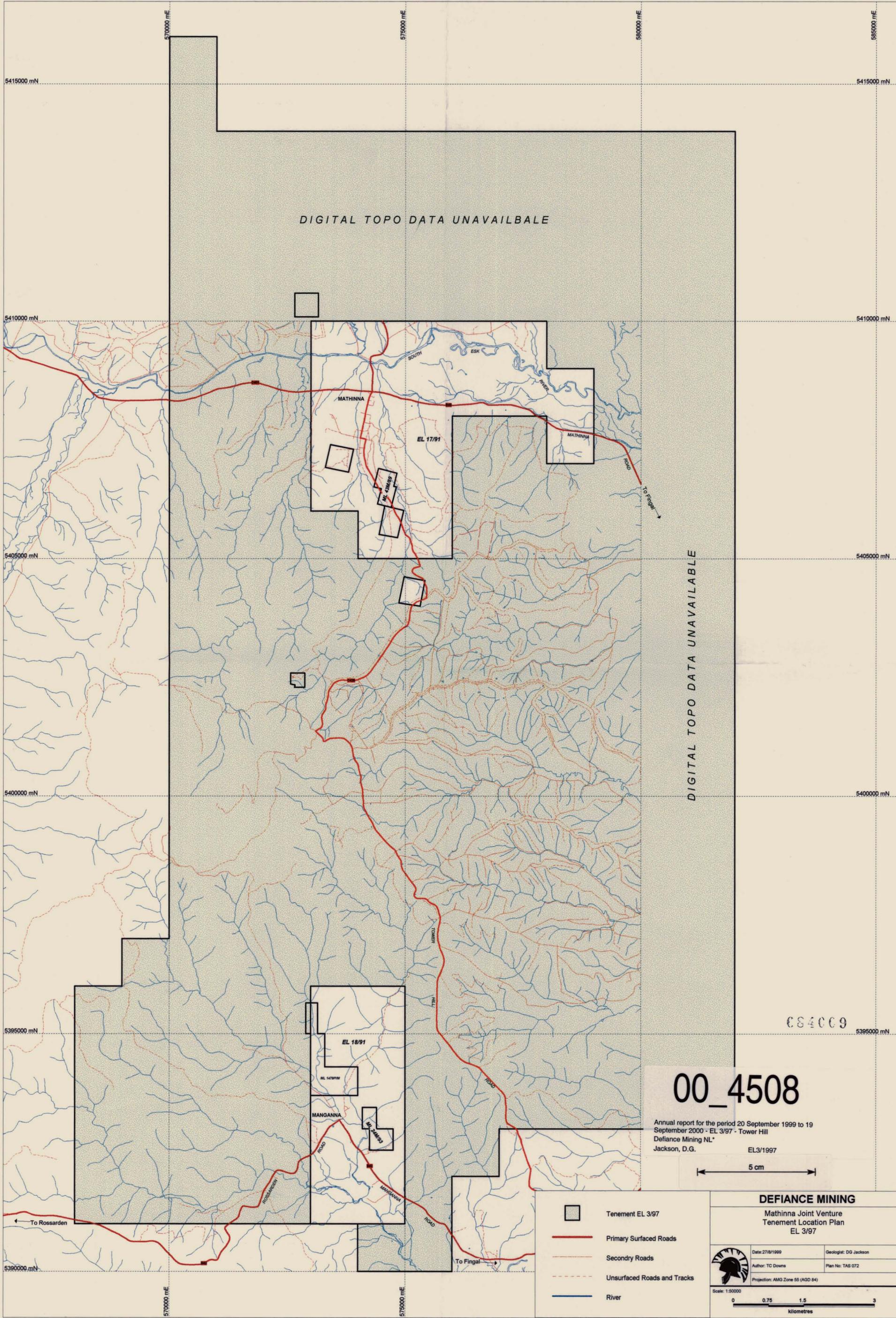
Colville, R. 1998. Connemarra Gold Mines Pty Ltd, Mathinna Gold Project, Annual Report on Exploration Licence 3/97 for the Twelve Months ending 19 September 1998.

Jackson, D. 1999. Defiance Mining NL, Annual Report on Tower Hill Exploration Licence 3/97 for the Twelve Months ending 19 September 2000

MacDonald, G. 1996. Resolute Samantha Limited, Annual Report 1995 EL 22/92 "Tower Hill".

9. Expenditure Statement - EL 3/97**For the period 20 September 1999 to 19 September 2000**

Item	\$
MRT/ Legal/NNTT Costs	7,470
Literature Research	
Freight	
Geophysics - Aeromags	
Computing & CAD Services	
Consultant - Geophysics	
Assaying	600
Drilling – Reverse Circulation	
Salaries & Wages	7,015
Vehicles	
Travel & Accommodation	
Consumables	
Overheads at 10%	761
Total	15,846



DIGITAL TOPO DATA UNAVAILABLE

DIGITAL TOPO DATA UNAVAILABLE

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Annual report for the period 20 September 1999 to 19 September 2000 - EL 3/97 - Tower Hill
 Defiance Mining NL*
 Jackson, D.G.

EL3/1997

5 cm

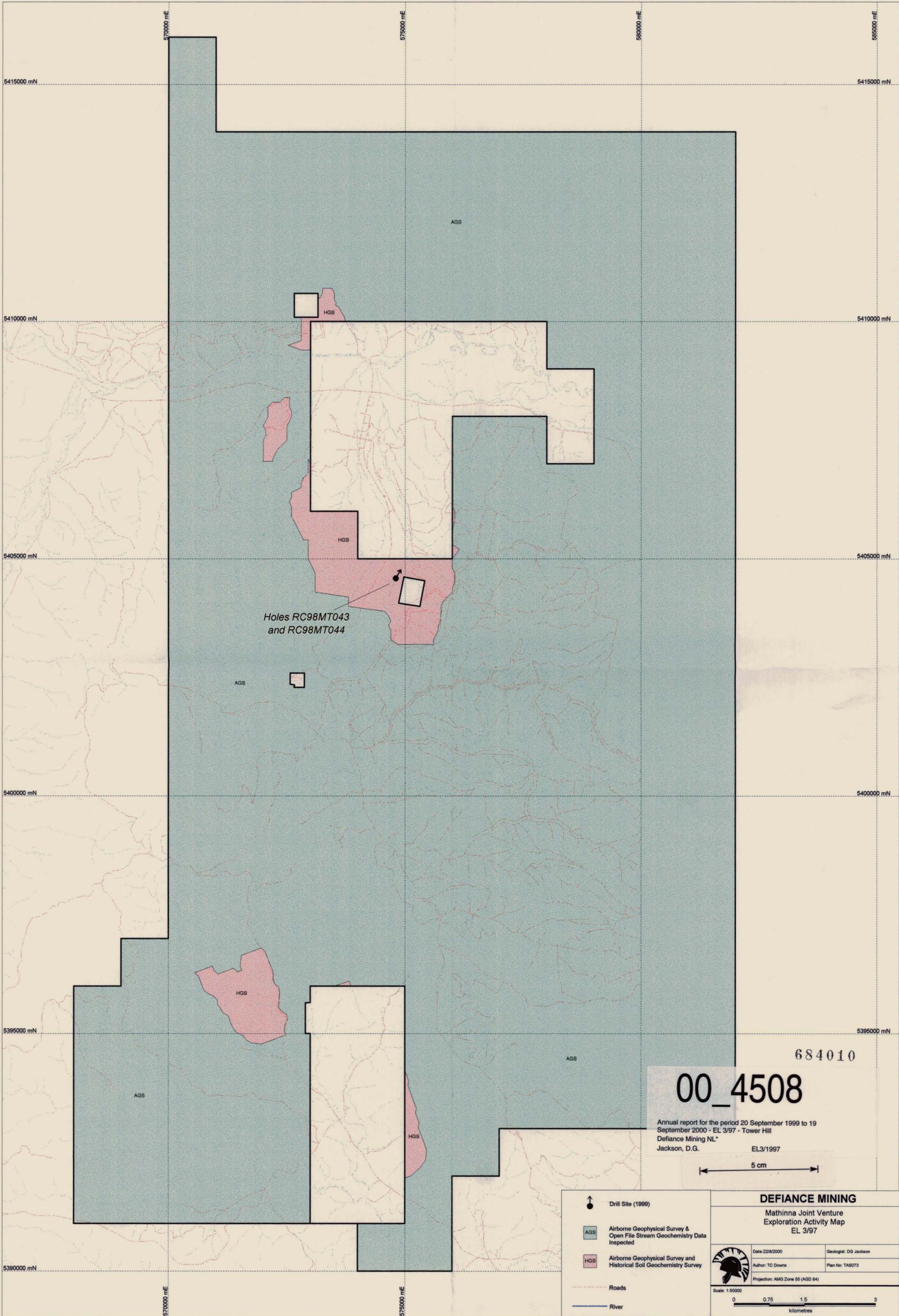
-  Tenement EL 3/97
-  Primary Surfaced Roads
-  Secondary Roads
-  Unsurfaced Roads and Tracks
-  River



DEFIANCE MINING
 Mathinna Joint Venture
 Tenement Location Plan
 EL 3/97

Date: 27/8/1999	Geologist: DG Jackson
Author: TC Downs	Plan No: TAS 072
Projection: AMG Zone 55 (AGD 84)	

Scale: 1:50000
 0 0.75 1.5 3
 kilometres



Holes RC98MT043
and RC98MT044

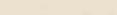
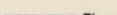
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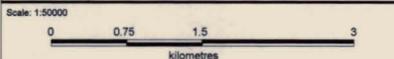
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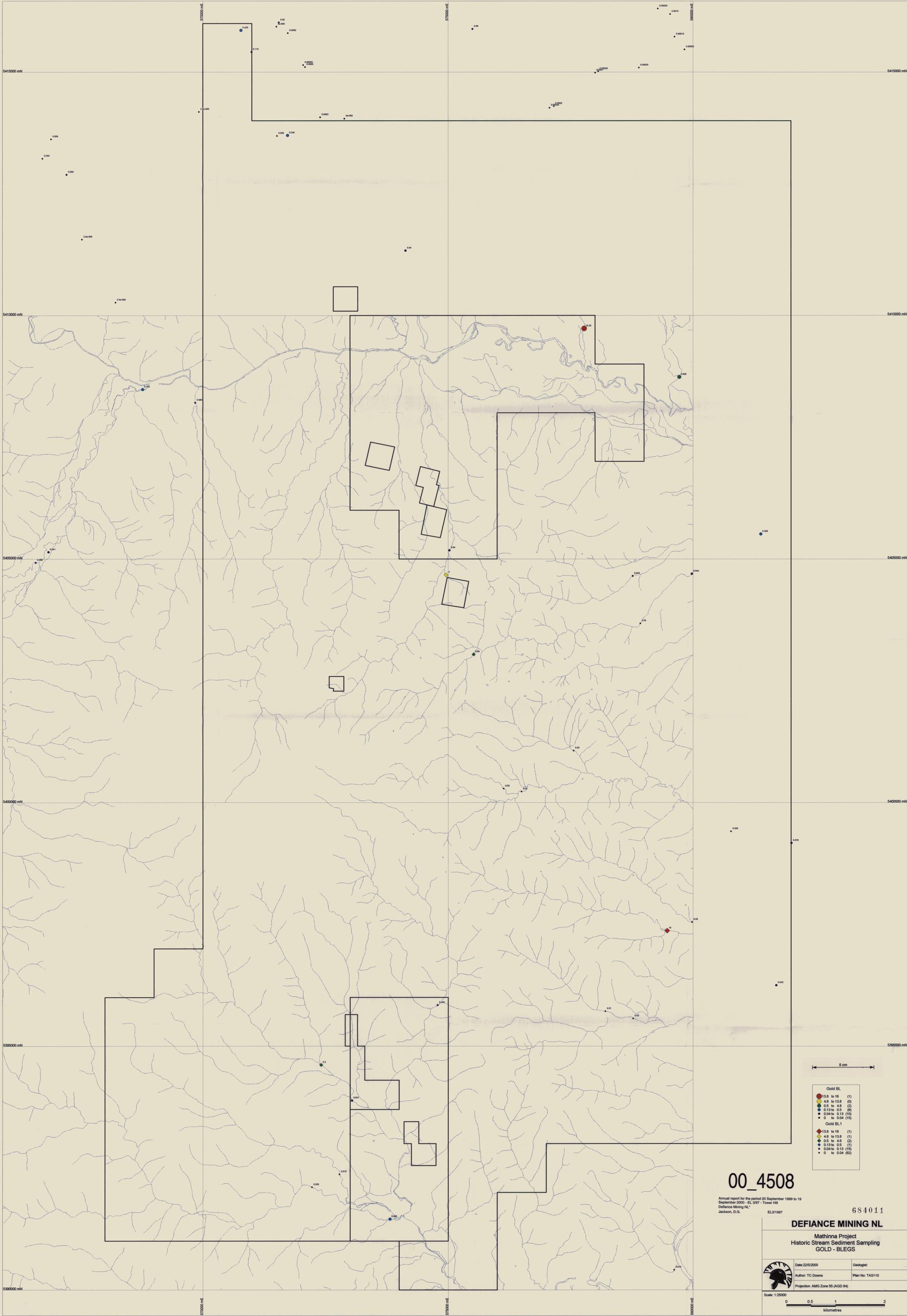
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September 2000 - EL 3/97 - Tower Hill
Defiance Mining NL*
Jackson, D.G.

EL3/1997

5 cm

-  Drill Site (1999)
-  Airborne Geophysical Survey & Open File Stream Geochemistry Data Inspected
-  Airborne Geophysical Survey and Historical Soil Geochemistry Survey
-  Roads
-  River

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Mathinna Joint Venture Exploration Activity Map EL 3/97	
Date: 22/8/2000	Geologist: DG Jackson
Author: TC Downs	Plan No: TAS073
Projection: AMG Zone 55 (AGD 84)	
Scale: 1:50000	
	



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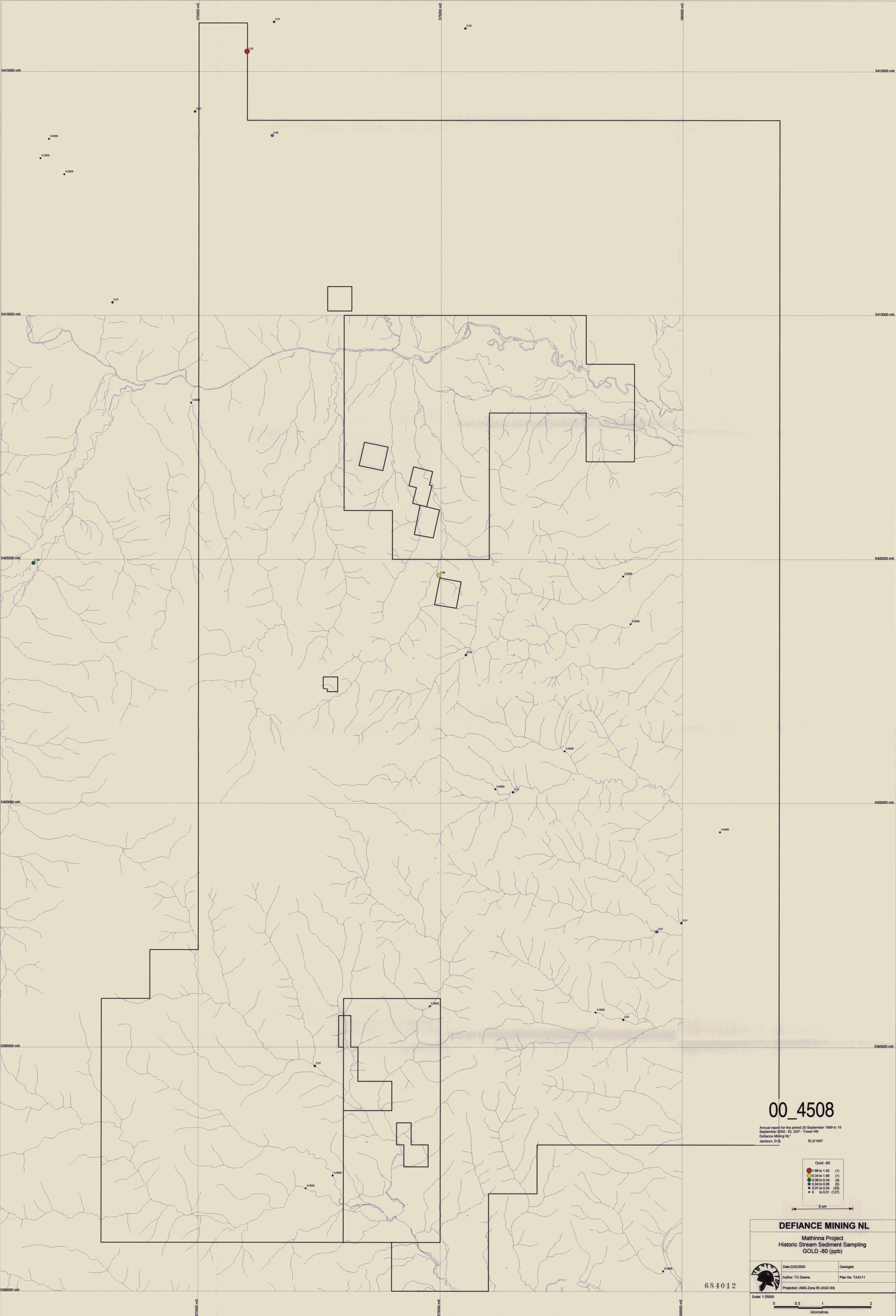
684011

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Mathinna Project
Historic Stream Sediment Sampling
GOLD - BLEGS

Date: 22/5/2000	Geologist:
Author: TC Downs	Plan No: TA5110
Projection: AMG Zone 55 (AGD 84)	





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Annual report for the period 20 September 1999 to 19 September 2000 - EL 307 - Tower Hill
 Defiance Mining NL
 Jackson, D.G.
 EL31997

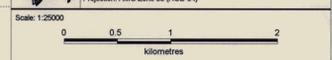
Gold -80	
● 1.66 to 1.92	(1)
● 0.34 to 1.66	(7)
● 0.08 to 0.34	(4)
● 0.04 to 0.08	(5)
● 0.01 to 0.04	(33)
● 0 to 0.01	(127)

5 cm

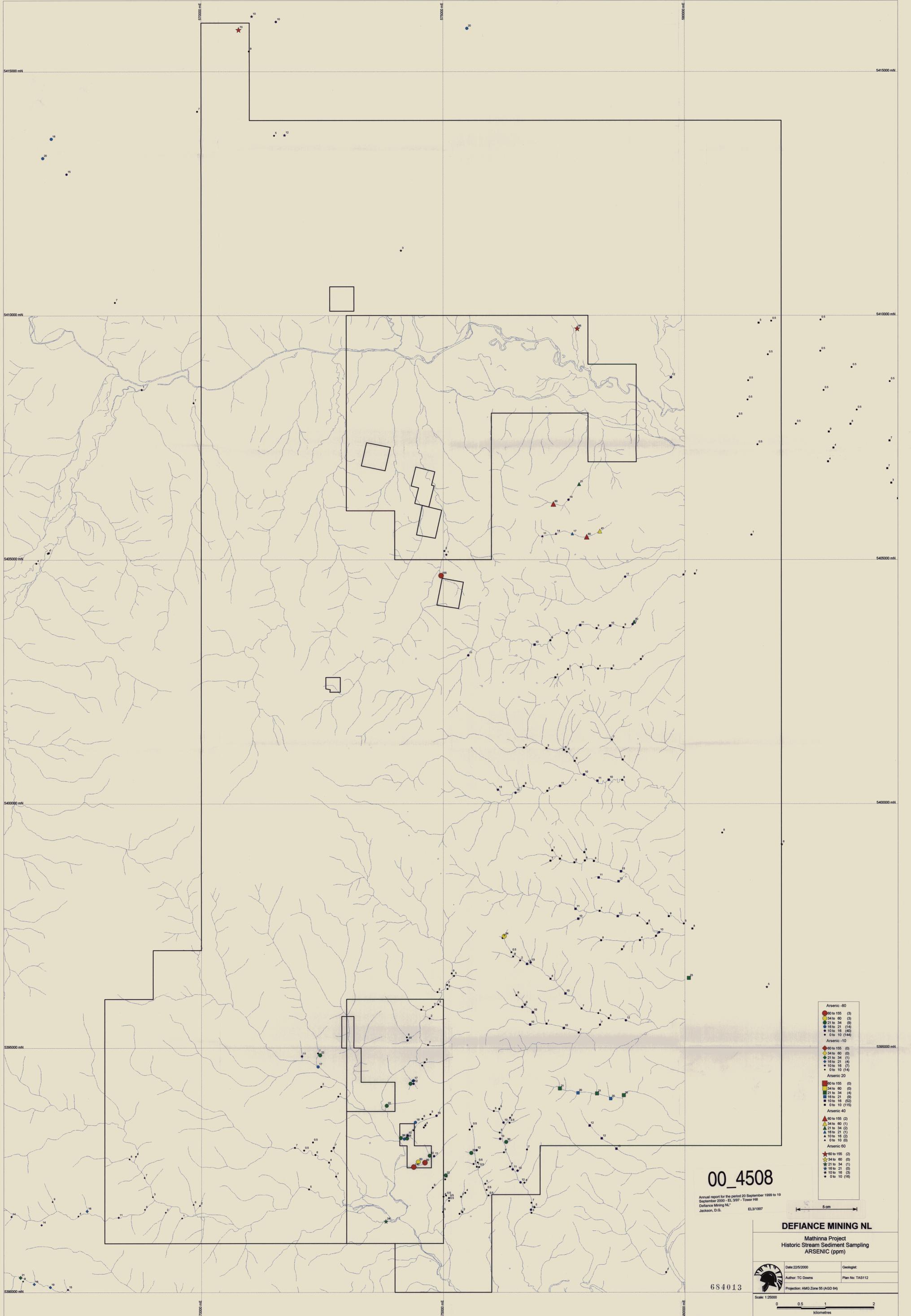
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Mathinna Project
 Historic Stream Sediment Sampling
 GOLD -80 (ppb)

Date: 2/5/2000	Geologist:
Author: TC Downs	Plan No: TAS111
Projection: AMG Zone 55 (AGD 84)	



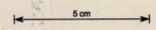
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- Arsenic -80**
- 60 to 155 (9)
- 34 to 60 (3)
- 21 to 34 (9)
- 16 to 21 (14)
- 10 to 16 (45)
- 0 to 10 (144)
- Arsenic -10**
- 60 to 155 (0)
- 34 to 60 (0)
- 21 to 34 (1)
- 16 to 21 (4)
- 10 to 16 (7)
- 0 to 10 (14)
- Arsenic -20**
- 60 to 155 (0)
- 34 to 60 (0)
- 21 to 34 (2)
- 16 to 21 (0)
- 10 to 16 (52)
- 0 to 10 (115)
- Arsenic -40**
- ▲ 60 to 155 (2)
- ▲ 34 to 60 (1)
- ▲ 21 to 34 (2)
- ▲ 16 to 21 (1)
- ▲ 10 to 16 (2)
- ▲ 0 to 10 (0)
- Arsenic -60**
- ★ 60 to 155 (2)
- ★ 34 to 60 (0)
- ★ 21 to 34 (1)
- ★ 16 to 21 (0)
- ★ 10 to 16 (3)
- ★ 0 to 10 (16)

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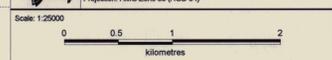


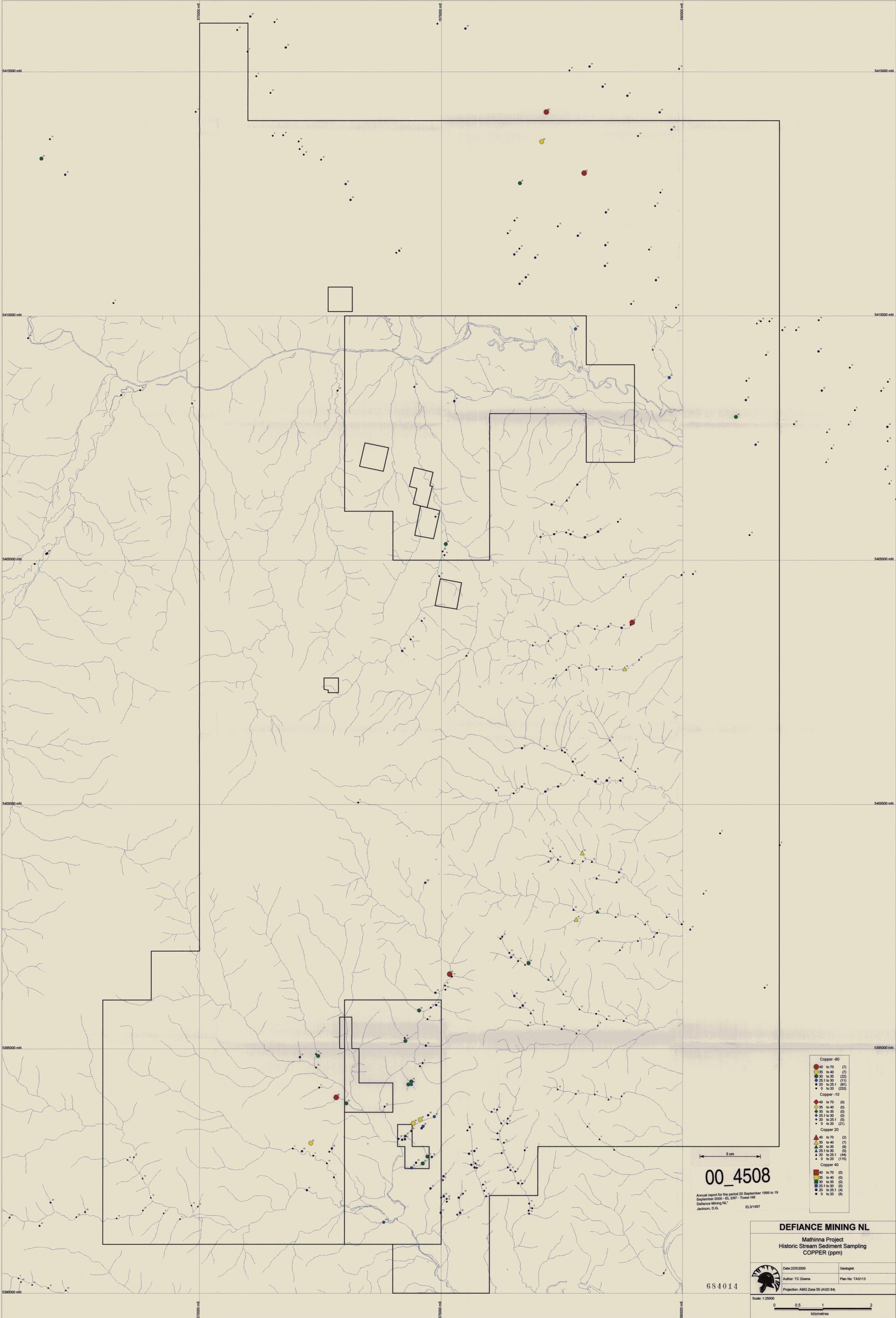
DEFIANCE MINING NL

Mathinna Project
 Historic Stream Sediment Sampling
 ARSENIC (ppm)

Date: 22/5/2000	Geologist:
Author: TC Downs	Plan No: TAS112
Projection: AMG Zone 55 (AGD 84)	

684013





5 cm

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 Defiance Mining NL
 Jackson, D.G. EL3/1997

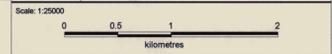
- Copper-60**
- 40 to 70 (7)
- 35 to 40 (7)
- 30 to 35 (22)
- 25 to 30 (11)
- 20 to 25.1 (91)
- 0 to 20 (232)
- Copper-10**
- ◆ 40 to 70 (6)
- ◆ 35 to 40 (6)
- ◆ 30 to 35 (6)
- ◆ 25 to 30 (6)
- ◆ 20 to 25.1 (5)
- ◆ 0 to 20 (21)
- Copper 20**
- ▲ 40 to 70 (2)
- ▲ 35 to 40 (7)
- ▲ 30 to 35 (6)
- ▲ 25 to 30 (6)
- ▲ 20 to 25.1 (44)
- ▲ 0 to 20 (115)
- Copper 40**
- 40 to 70 (6)
- 35 to 40 (6)
- 30 to 35 (6)
- 25 to 30 (6)
- 20 to 25.1 (4)
- 0 to 20 (6)

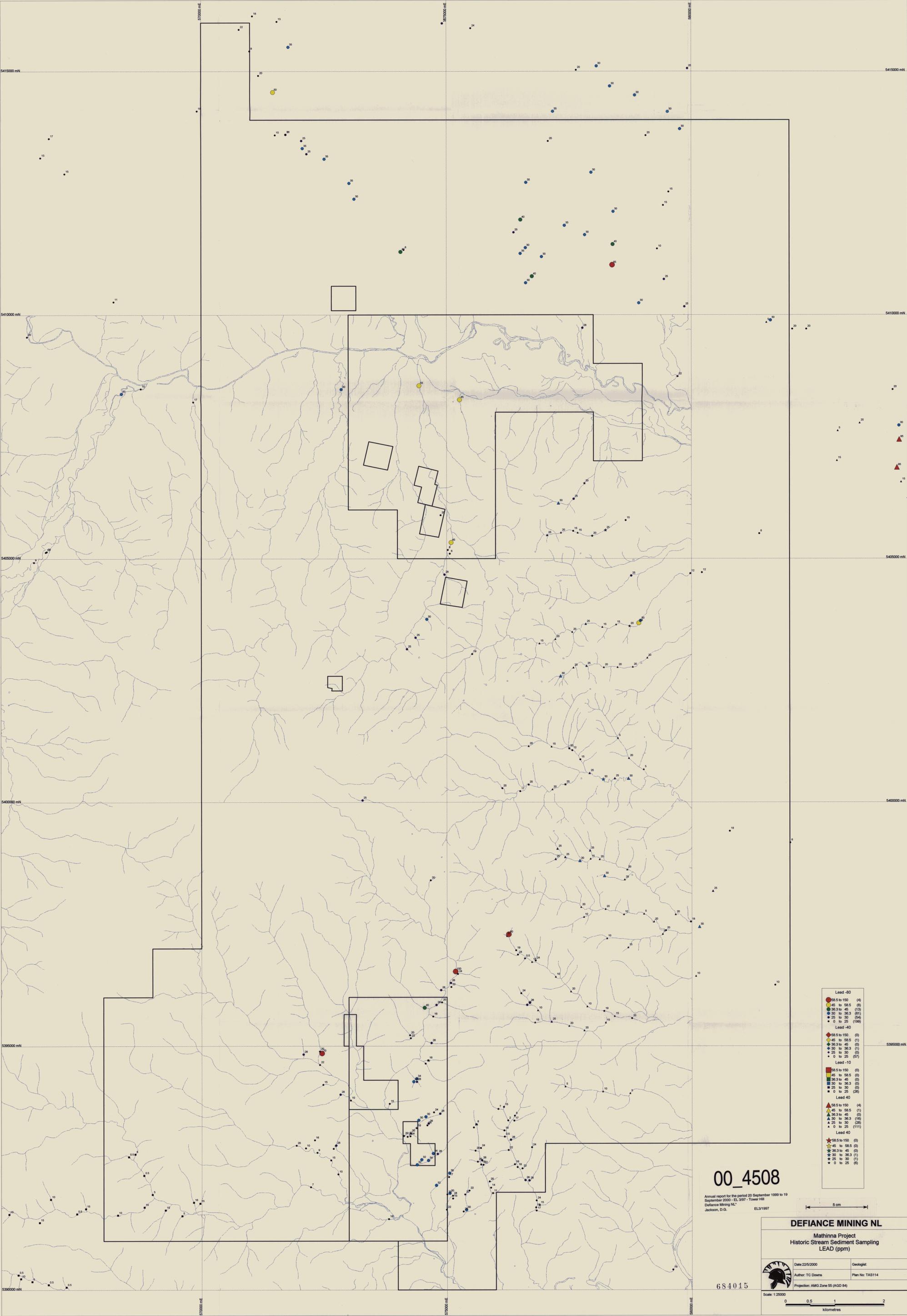
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Mathinna Project
 Historic Stream Sediment Sampling
 COPPER (ppm)

Date: 22/5/2000	Geologist:
Author: TC Downs	Plan No: TAS113
Projection: AMG Zone 55 (AGD 84)	

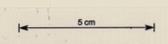
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Annual report for the period 20 September 1999 to 19 September 2000 - EL 3097 - Tower Hill
 Defiance Mining NL
 Jackson, D.G. EL3/1997

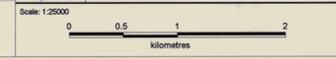


DEFIANCE MINING NL

Mathinna Project
 Historic Stream Sediment Sampling
 LEAD (ppm)

Date: 22/5/2000	Geologist:
Author: TC Downs	Plan No: TAS114
Projection: AMG Zone 55 (AGD 84)	

684015



- Lead -80**
- 58.5 to 150 (4)
- 45 to 58.5 (8)
- 36.3 to 45 (13)
- 30 to 36.3 (61)
- 25 to 30 (56)
- 0 to 25 (199)
- Lead -40**
- ◆ 58.5 to 150 (0)
- ◆ 45 to 58.5 (1)
- ◆ 36.3 to 45 (0)
- ◆ 30 to 36.3 (0)
- ◆ 25 to 30 (0)
- ◆ 0 to 25 (57)
- Lead -10**
- 58.5 to 150 (0)
- 45 to 58.5 (0)
- 36.3 to 45 (0)
- 30 to 36.3 (0)
- 25 to 30 (0)
- 0 to 25 (26)
- Lead 40**
- ▲ 58.5 to 150 (4)
- ▲ 45 to 58.5 (0)
- ▲ 36.3 to 45 (0)
- ▲ 30 to 36.3 (16)
- ▲ 25 to 30 (29)
- ▲ 0 to 25 (111)
- Lead 40**
- ★ 58.5 to 150 (0)
- ★ 45 to 58.5 (0)
- ★ 36.3 to 45 (1)
- ★ 30 to 36.3 (1)
- ★ 25 to 30 (1)
- ★ 0 to 25 (8)