97-4082

272001

PASMINCO EXPLORATION

WOMBAT FLAT EL 22/96

ANNUAL AND FINAL REPORT
FOR THE PERIOD ENDING OCTOBER 1997

Author: G B Weber
F C Murphy

Date: October 1997

Submitted To: Regional Exploration Manager, Tasmania

Copies To: Tasmanian Development and Resource Industry Safety and Mines Division, Hobart
Pasminco Exploration, Melbourne
Pasminco Exploration, Rosebery

Submitted By:

Accepted By:

Melbourne File No: VC 185

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1. SUMMARY

During 1996 Pasminco Exploration applied for 22 square kilometres in the north-west sector of the Dundas Trough on the north-east corner of the Meredith Granite in the Luina area.

Pasminco Exploration philosophy was that the area was prospective for high grade Sn-Cu or Zn replacement/skarn mineralisation associated with the contact zone on buried actions of the Meredith Granite.

During the first year of tenure, Pasminco prepared a GIS study of prior exploration in the licence area. During 1997 there was a review of all Pasminco Exploration tenements in Tasmania and although a decision was made to continue exploration in Tasmania, the titles around the northern edge of the Meredith Granite did not fit the new exploration philosophy and are to be relinquished.

2. INTRODUCTION

This report details exploration undertaken on the Wombat Flat EL 22/96 licence area, between October 1996 and October 1997. The licence area forms the south-eastern portion of a contiguous group of licences which cover the northern edge of the Meredith Granite from Waratah in the east to Savage River in the west. These licences cover the north-west sector of the Dundas Trough which contains a sequence of metasediments, metavolcanics and mafic/ultramafic complexes. To the north of the Wombat Flat licence lies the economically significant Mount Bischoff tin deposit, now essentially mined out.

The general area has experience a long history of mining, but no prospects or mines are recorded on the Wombat Flat licence area. The philosophy for selection of this title was to explore for Zn rich skarns or Sn replacement bodies associated with the Meredith Granite.

Access is provided by the Waratah Road and bush tracks occur down the centre of the licence area.

13 recorded in Mitlock!
3 shown on Corinna Sheet!!

3. LAND TENURE

The Wombat Flat EL 22/96 covers an area of 22 square kilometres and was granted in early November 1996.

The licence area is divided into three land tenure areas. The western half is the Mount Ramsay RAP, the eastern half is Referred Forest Land and a small area along the Waratah Road is Multi-use Forest land (Fig 2).

4. GEOLOGY & STRUCTURE

The geology of the licence are is essentially very simple. The western half of the licence consists of Meredith Granite. A small window of metasediments/metavolcanics about which little is known occurs in the south-central portion of the licence. To the east these Cambrian Dundas Trough metasediments/metavolcanics are masked by Tertiary Flood Basalts. There are no ultramafic complexes known in the area but they may exist beneath the basalt cover.

The licence area was not covered by the 1996-97 aeromagnetic survey flown over the Luina EL 1993 JV area which lies immediately west of the licence area.

5. PROSPECTIVITY REVIEW

5.1 Background

Pasminco Exploration undertook a prospectivity assessment of its ground holdings in Western Tasmania during the past 12 months (Murphy 1997). The review employed a GIS (Mapinfo) analysis of exploration data which, for the Wombat Flat EL, was sourced from open file data and an existing Pasminco database held in Access. Both data sets required substantial effort to validate and were then combined with the open file compilation. The integration of the various data sets formed the basis for largely geochemically-oriented metallogenic modelling and target area definition. Analysis was performed on Cu, Pb and Zn distributions as these elements provide the most coherent regional coverage. In essence, this identifies existing anomalies and significant gaps in coverage to date on the Wombat Flat tenement. Layers incorporated in the GIS are:

- Modified 1:25,000 geology and mineral occurrences (Fig 3) . The geology was coded according to lithotypes eg. DGE = Dundas Group Equivalent, CVC = Central Volcanic Sequence.
- Stream sediment sampling and drainage (Fig 4).
- Extant grids and access (Fig 5).
- Soil sampling and grids (Fig 6).
- Rock chip sampling and drill collars (Fig 7).

5.2 Point Data Analysis

- The stream sediment sample points invariably plot off stream lines (Fig 4) so catchment analysis was not deemed appropriate. In any case, where there is a high sample density the points approximate to small catchment areas. The data points were standardised and leveled accordingly to the underlying 1:25,000 geology polygon that contains them. Analysis was then made of the lithotype populations (eg. All CVC hosted samples) with statistical analysis performed on the log distributions and z-scores (x-mean (x)/st dev (x)) calculated for each point. The data was subsequently imaged using a search radius of 500m and grid cell size of 50m.
- The soil samples were standardised and leveled according to soil profile (A, B, C and 'unknown') and to major lithotype code of the underlying geology polygon, using the same statistical manipulations as with the stream data. The data was then imaged using a search radius of 100m and a grid cell size of 50m.
- The rock chip data was gridded in the same way as the soil data.

- Each of the 'surface' data sets (stream, soil and rock ship) were imaged for each of the three elements and displayed as percentile RGB images. The images are 'hot to cold' colour coded according to the 99th, 98th, 95th, 90th, 80th, 60th and 40th percentile of the z-score distribution.

- The high z-scores values for each element were threshold as a composite RGB image to show levels of coincident anomalies. These are colour coded according to Red=Pb, Green=Cu, Blue=Zn, Yellow=Pb+Cu, Cyan=Zn+Cu, Magneta=Pb+Zn, White=Cu+Pb+Zn.

5.3 Multi-element Distributions

Preliminary observations can only be made at this stage, ie. Qualitative statements that require quantitative analysis of the nature and robustness of the anomalies. They provide pointers for future work programs. The following observations are drawn from the data:

Stream Sediment Images (Figs 8, 9, 10, 11)

- There is major coverage of the licence area, but some critical stream sediment data results have not been located, especially the data for lead.

- Considering the lack of prospective geology there are several spot highs that are considered of interest.

- It is interesting to note that Grid Positions (Fig 5) do not correspond to anomalous drainages and no drill holes have been completed on this title.

Soil Images (Figs 12, 13, 14, 15)

- No soil data is shown for these grids.

Rock Chip Images (Figs 16, 17, 18, 19)

- Only limited numbers of rock samples plot within the Wombat Flat licence area. The main zone being along the Waratah Road. No anomalous zones were located.

5.4 Metallogenic Modelling (Fig 20)

- The geochemical data does not allow an evaluation by this technique, as there is clearly an inadequate data base.

6. CONCLUSIONS & RECOMMENDATIONS

The GIS study has shown that there is little prior exploration data over this licence area apart from stream sediment data. The geology of the contact zone being covered by Tertiary Basalt limits the effectiveness of this type of exploration. The study has failed to delineate any prospective zones.

Because of the change of focus in exploration by Pasminco in Tasmania it is recommended that this area is reliquished.

7. EXPENDITURE STATEMENT

Total expenditure for all work undertaken by Pasminco Exploration within Wombat Flat EL 22/96 for the twelve month period to the end of September 1997 was $2,950. A detailed expenditure statement is given below.

Personnel	471
Travel and Accommodation	
Geological Consultants	
Geochemical Consultants & Assays	
Geophysical Surveys & Consultants	
Other Consultants	
Drilling	
Stores & Supplies	
Vehicles Plant & Equipment	
Land	1,023
Computing	
Office	1,188
Administration Fee 10%	268
Total Tenement Expenditure	**$2,950**

8. KEYWORDS & LOCALITY

KEYWORDS

Zinc, Lead, Copper, Tin, Skarn, Geochemistry, Dundas Trough, Granite

LOCATION

Burnie SK 55-3

Luina, Waratah, Meredith Granite

272013

350 000mE

400 000mE

5 450 000mN

5 400 000mN

5 350 000mN

5 cm

BASS STRAIT

Somerset

BURNIE

Penguin

Ulverstone

Nietta

Waratah

Savage River

Zeehan

Strahan

Queenstown

Macquarie Harbour

SOUTHERN OCEAN

Murchison Highway

Hampshire Bay Railway Link Road

Emu Cradle Link Road

Pieman Road

Lake Pieman

Anthony Road

Lake Mackintosh

Lake Murchison

E.L. 23/96

E.L. 48/94

E.L. 17/93

E.L. 22/96

E.L. 49/94

E.L. 1/93

E.L. 19/94

E.L. 37/89

E.L. 44/88

E.L. 21/96

E.L. 24/96

HELLYER MINE

QUE RIVER MINE

ROSEBERY

RENISON MINE

Rosebery

RML

HERCULES

Mt. Farrell Tullah

MT. LYELL

R.L. 8809

TASMANIA

Burnie

Launceston

Rbery

HOBART

PASMINCO EXPLORATION

A Division of Pasminco Australia Limited

COMPILED : G.M.B.	E.L. 22/96 WOMBAT FLAT
DATE : Oct. 1996	
DRAWN : G.M.B.	
REVISIONS...	
F.A.B. 30/10/97	LOCATION MAP
FILE : PAS362	
DRAWING No.	SCALE 1:500,000 (0 5 10 km) — FIG. No. 1

PASMINCO EXPLORATION

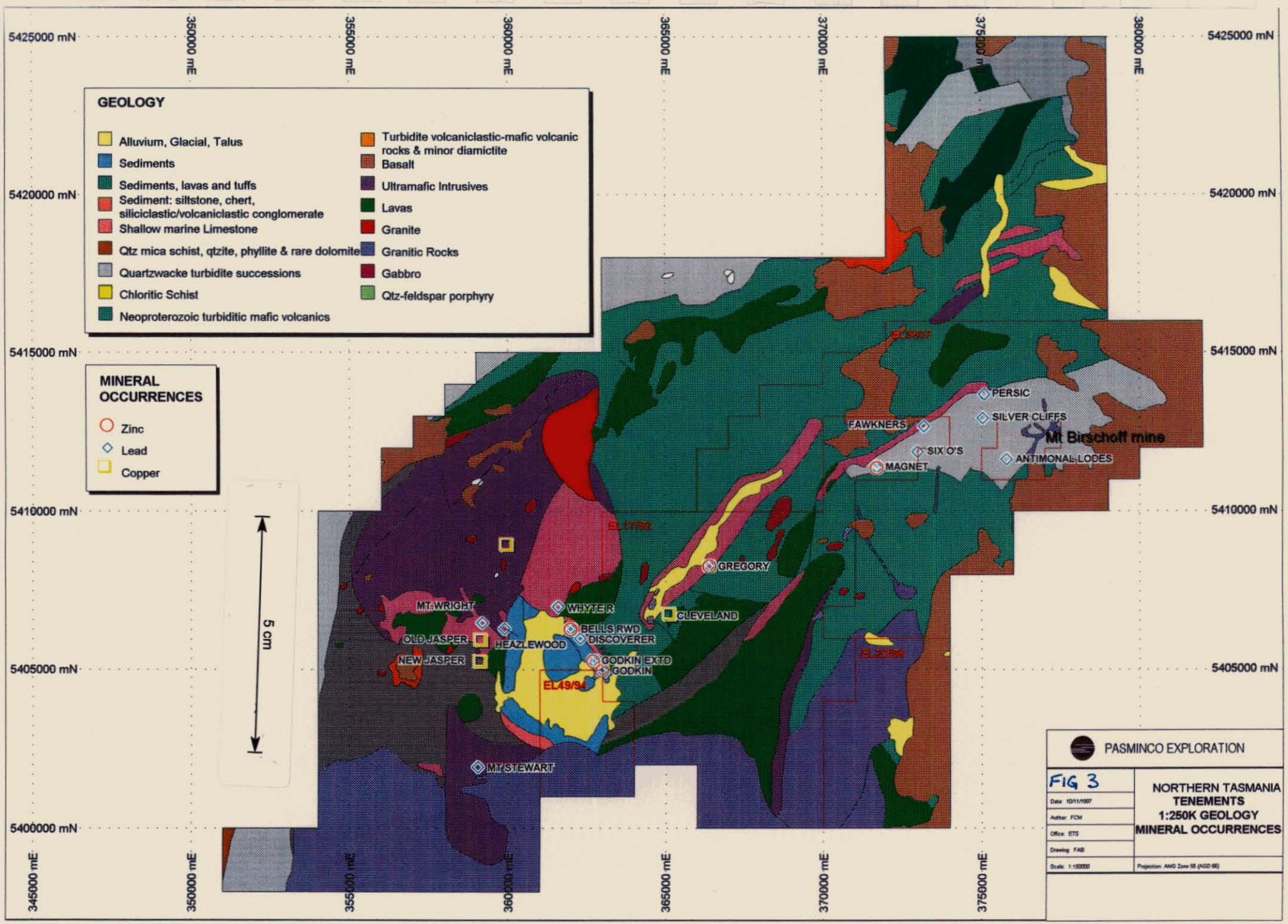
Figure 2:
EL22/96 - Wombat Flat,
Land Tenure Map.

Scale = 1:40,000

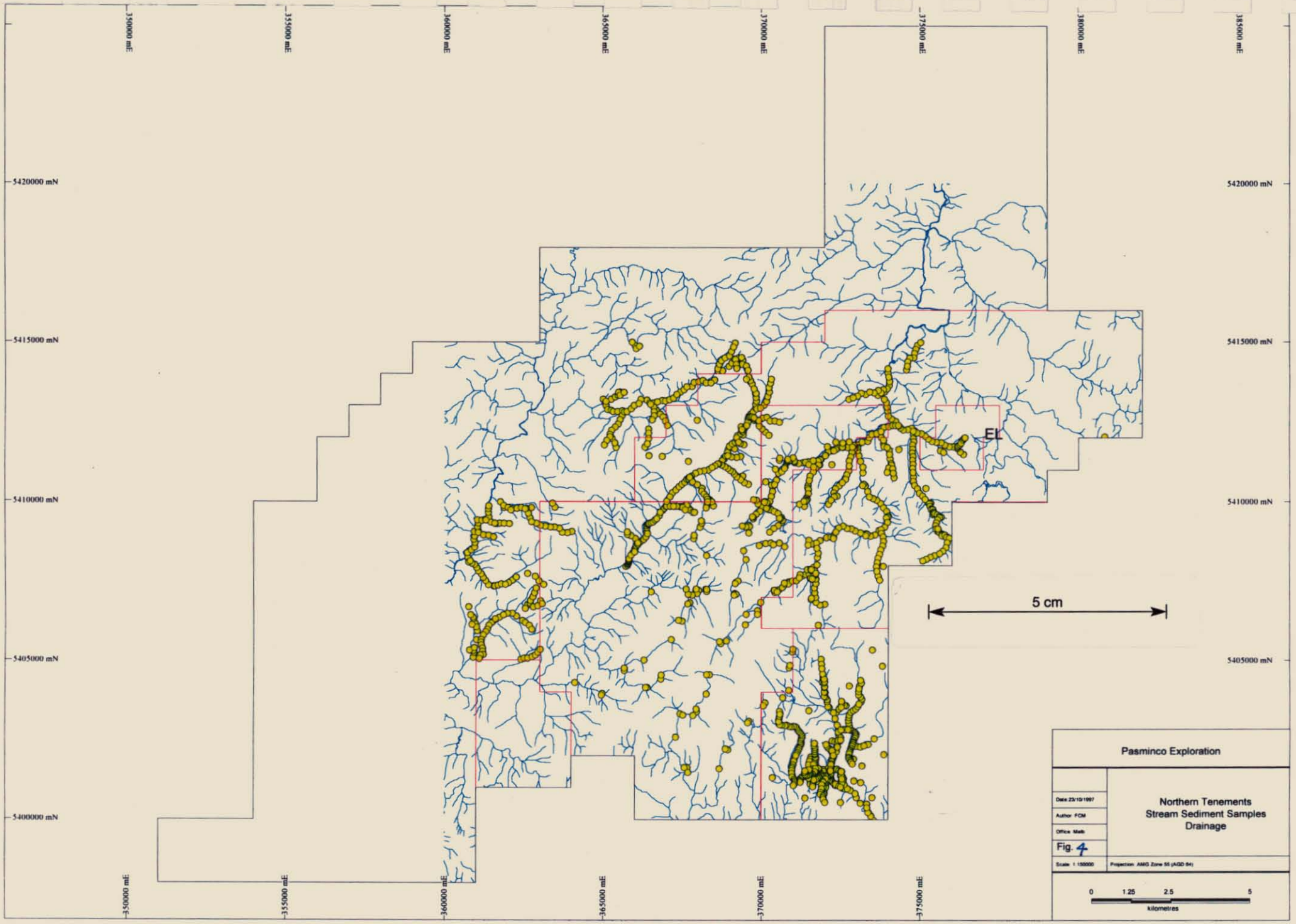
5 cm

LAND TENURE

- EL 22/96 - Wombat Flat
- State Forest - Multiple Use Forest Land
- Crown Land - Deferred Forest Land
- Mt. Ramsay Recommended Area for Protection
- Mining Leases.


GEOLOGY
Alluvium, Glacial, Talus
Sediments
Sediments, lavas and tuffs
Sediment: siltstone, chert, siliciclastic/volcaniclastic conglomerate
Shallow marine Limestone
Qtz mica schist, qtzite, phyllite & rare dolomite
Quartzwacke turbidite successions
Chloritic Schist
Neoproterozoic turbiditic mafic volcanics
Turbidite volcaniclastic-mafic volcanic rocks & minor diamictite
Basalt
Ultramafic Intrusives
Lavas
Granite
Granitic Rocks
Gabbro
Qtz-feldspar porphyry
MINERAL OCCURRENCES
Zinc
Lead
Copper
5425000 mN
5420000 mN
5415000 mN
5410000 mN
5405000 mN
5400000 mN
345000 mE
350000 mE
355000 mE
360000 mE
365000 mE
370000 mE
375000 mE
380000 mE
PERSIC
SILVER CLIFFS
FAWKNERS
Mt Birschoff mine
SIX O'S
ANTIMONAL LODES
MAGNET
GREGORY
CLEVELAND
WHYTE R
MT WRIGHT
BELLS RWD
DISCOVERER
OLD JASPER
HEAZLEWOOD
NEW JASPER
GODKIN EXTD
GODKIN
MT STEWART
EL49/94
5 cm
PASMINCO EXPLORATION
FIG 3
NORTHERN TASMANIA
TENEMENTS
1:250K GEOLOGY
MINERAL OCCURRENCES

27201 5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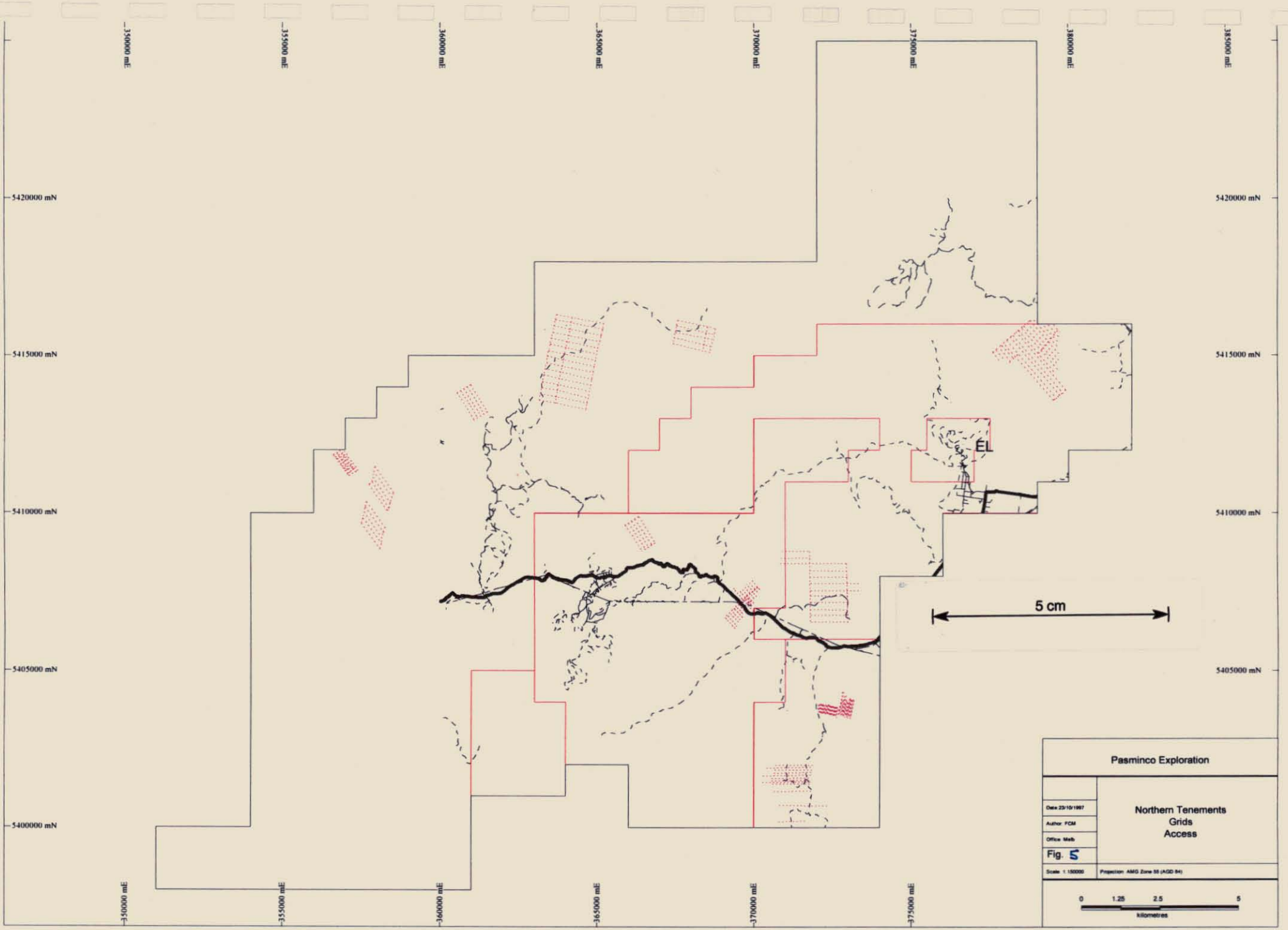
5400000 mN
EL
5 cm
Pasminco Exploration
Date: 23/10/1997
Author: FCM
Office: Melb
Fig. 4
Northern Tenements
Stream Sediment Samples
Drainage
Scale: 1:150000
Projection: AMG Zone 55 (AGD 84)
0 1.25 2.5 5
kilometres

272016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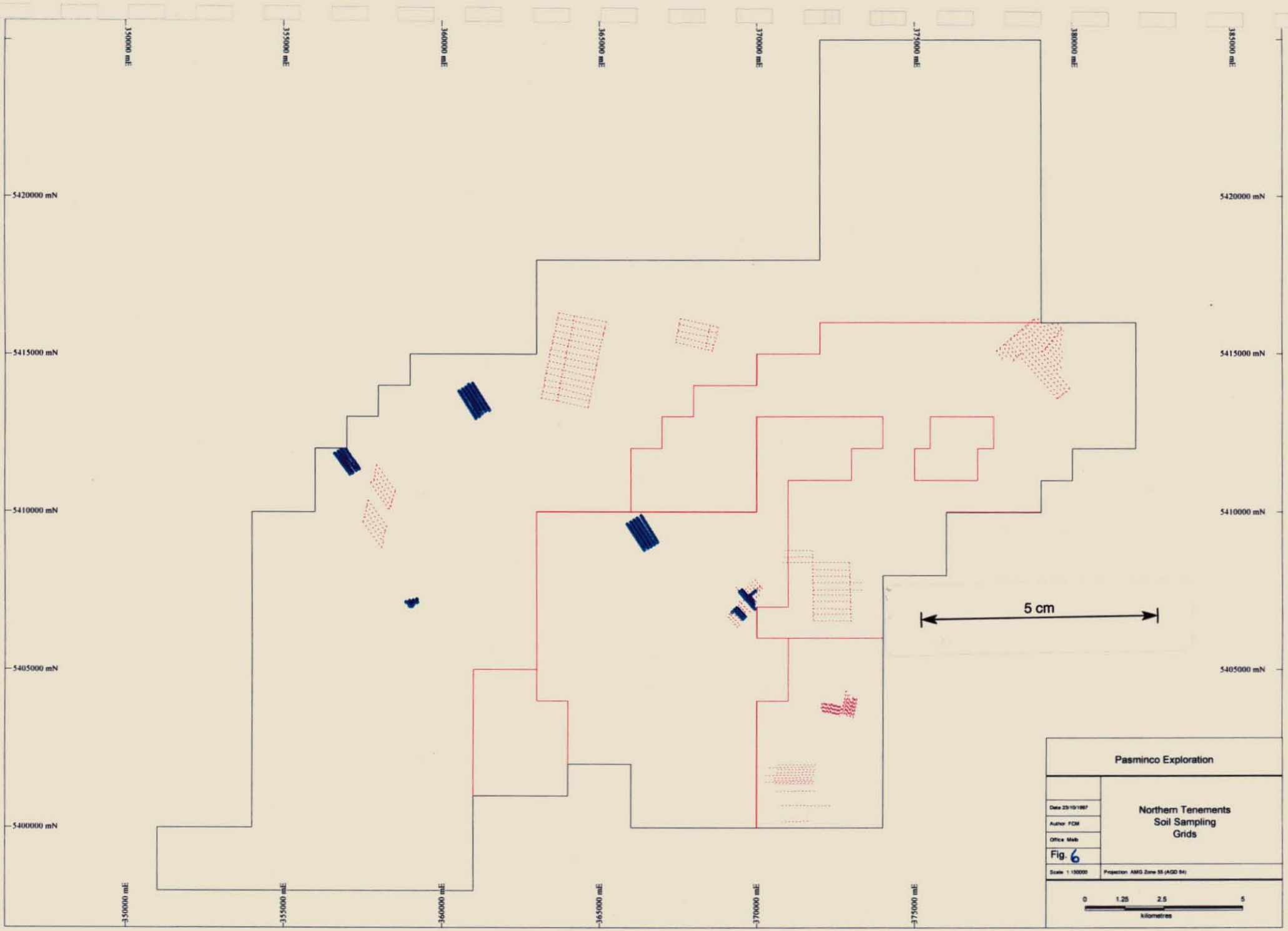
EL
5 cm
Pasminco Exploration
Date 23/10/1997
Author FCM
Office Melb
Fig. 5
Northern Tenements
Grids
Access
Scale 1:150000
Projection: AMG Zone 55 (AGD 84)
0 1.25 2.5 5
kilometres

27201?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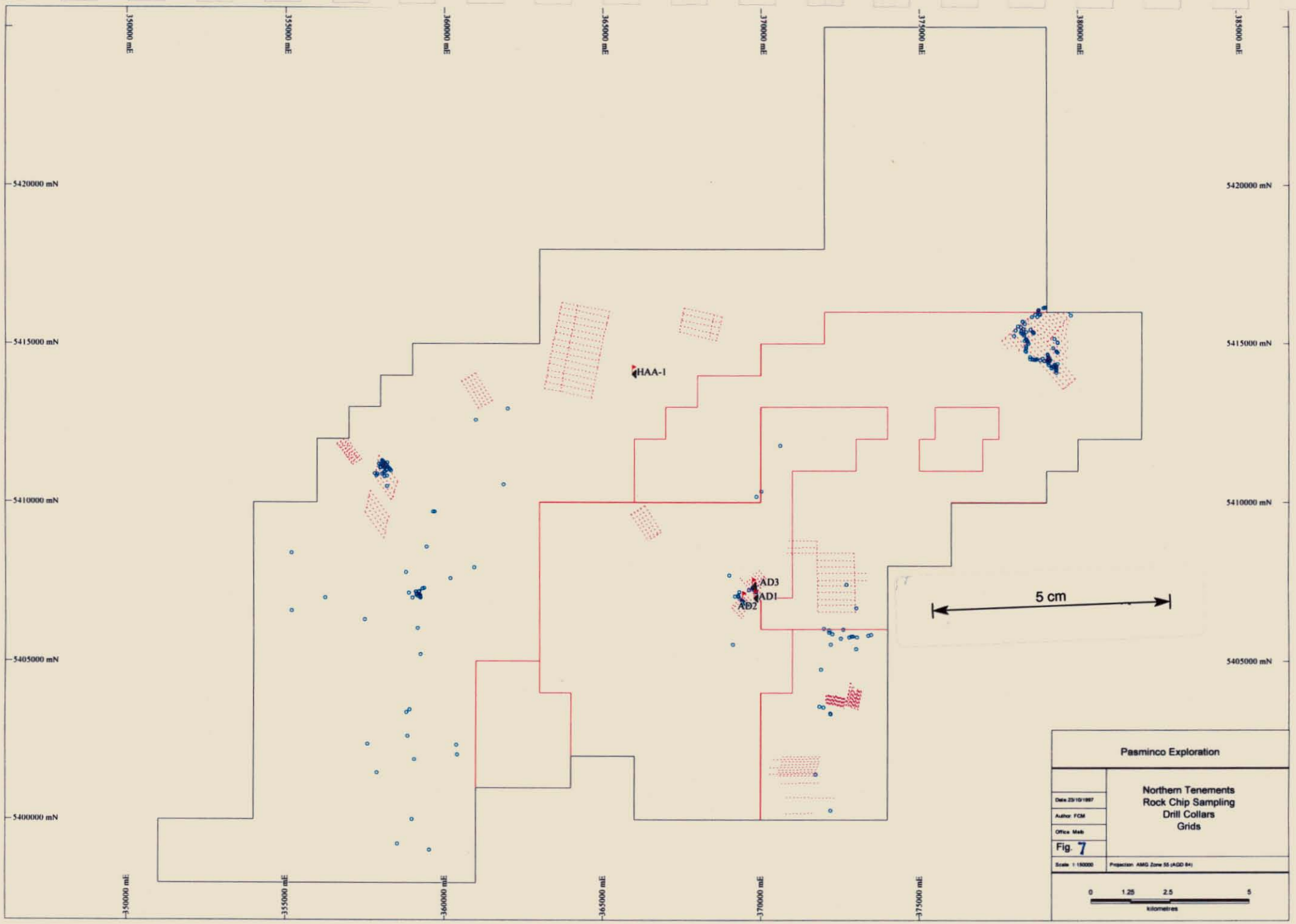
5 cm
Pasminco Exploration
Northern Tenements
Soil Sampling
Grids
Date 23/10/1997
Author FCM
Office Melb
Fig. 6
Scale 1:150000
Projection AMG Zone 55 (AGD 84)
0 1.25 2.5 5
kilometres

2720018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HAA-1
AD3
AD1
AD2
5 cm
Pasminco Exploration
Northern Tenements
Rock Chip Sampling
Drill Collars
Grids
Date 23/10/1997
Author FCM
Office Melb
Fig. 7
Scale 1:150000
Projection AMG Zone 55 (AGD 84)
0 1.25 2.5 5
kilometres

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5 cm
Pasminco Exploration
Northern Tenements
Zn in Streams
Percentile Distribution
Stream Sediment Samples
Drainage
Fig. 8
Scale 1:150000
Projection: AMG Zone 55 (AGD 84)
0 1.25 2.5 5
kilometres

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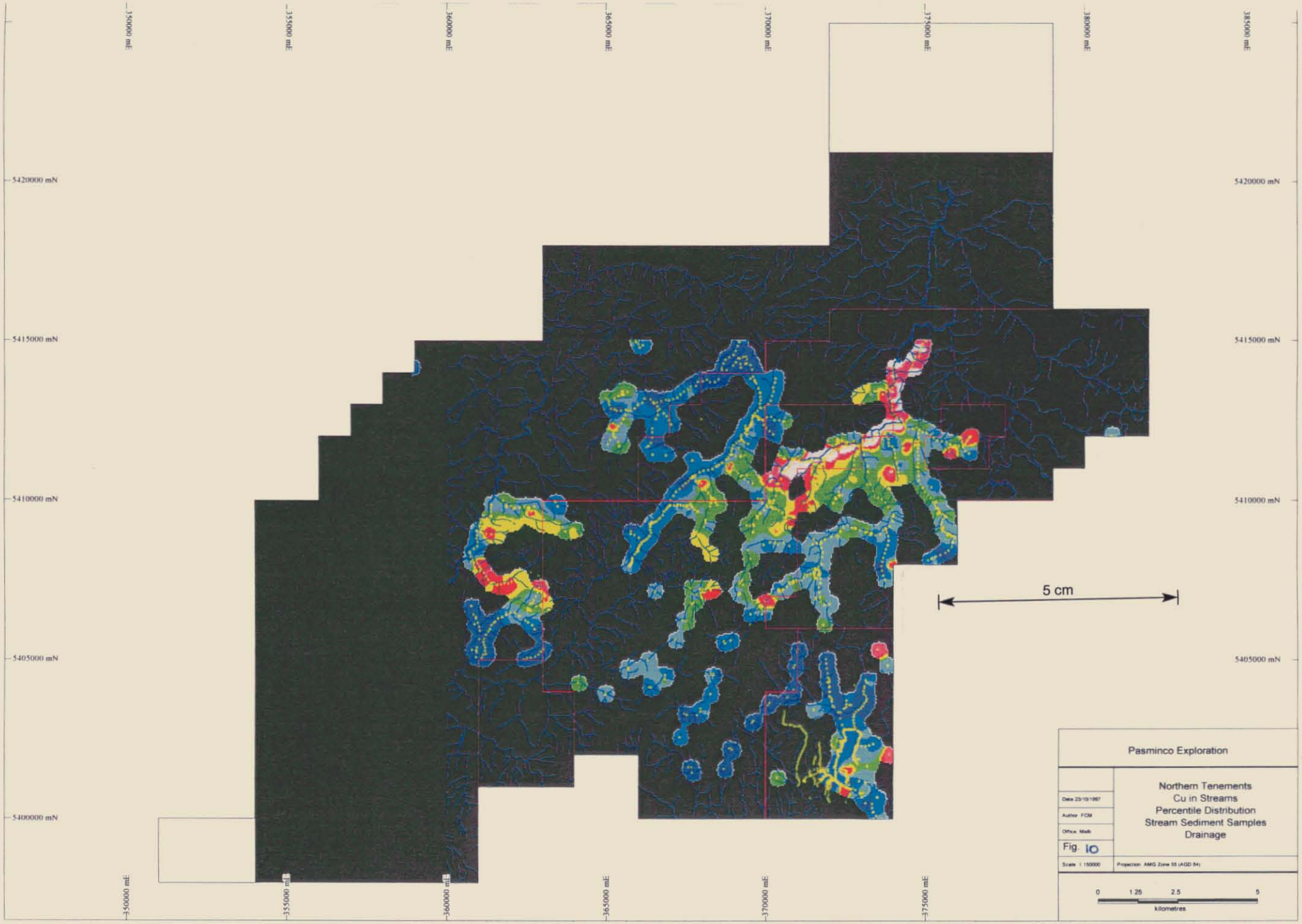
5420000 mN
5415000 mN
5410000 mN
5405000 mN
5400000 mN
5 cm
Pasminco Exploration
Northern Tenements
Pb in Streams
Percentile Distribution
Stream Sediment Samples
Drainage
Fig. 9
Scale: 1:150000
Projection: AMG Zone 55 (AGD 84)
0
1.25
2.5
5
kilometres

27/2021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5 cm
Pasminco Exploration
Northern Tenements
Cu in Streams
Percentile Distribution
Stream Sediment Samples
Drainage
Date 23/10/1997
Author FCM
Office Melb
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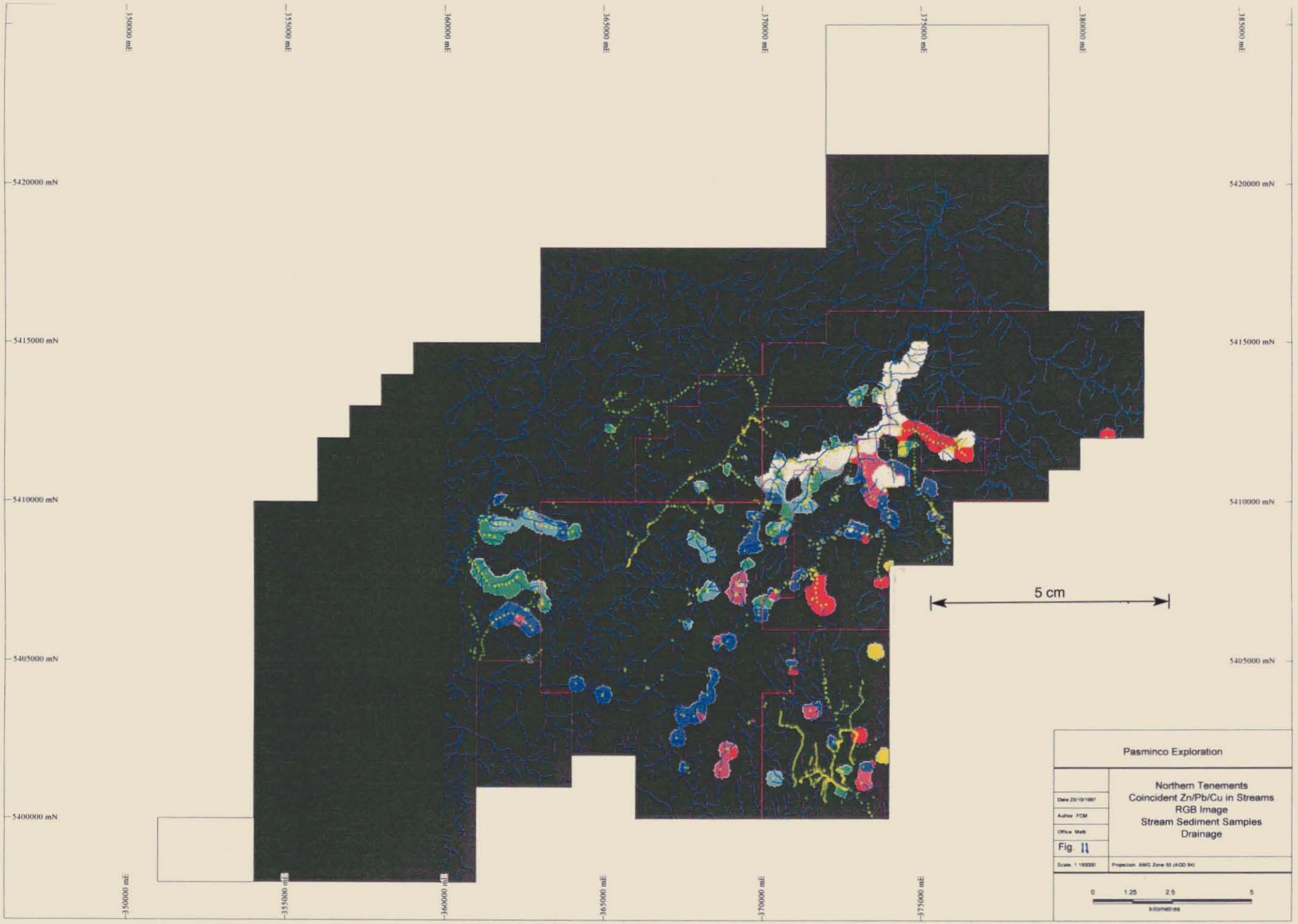
Projection: AMG Zone 55 (AGD 84)
0 1.25 2.5 5
kilometres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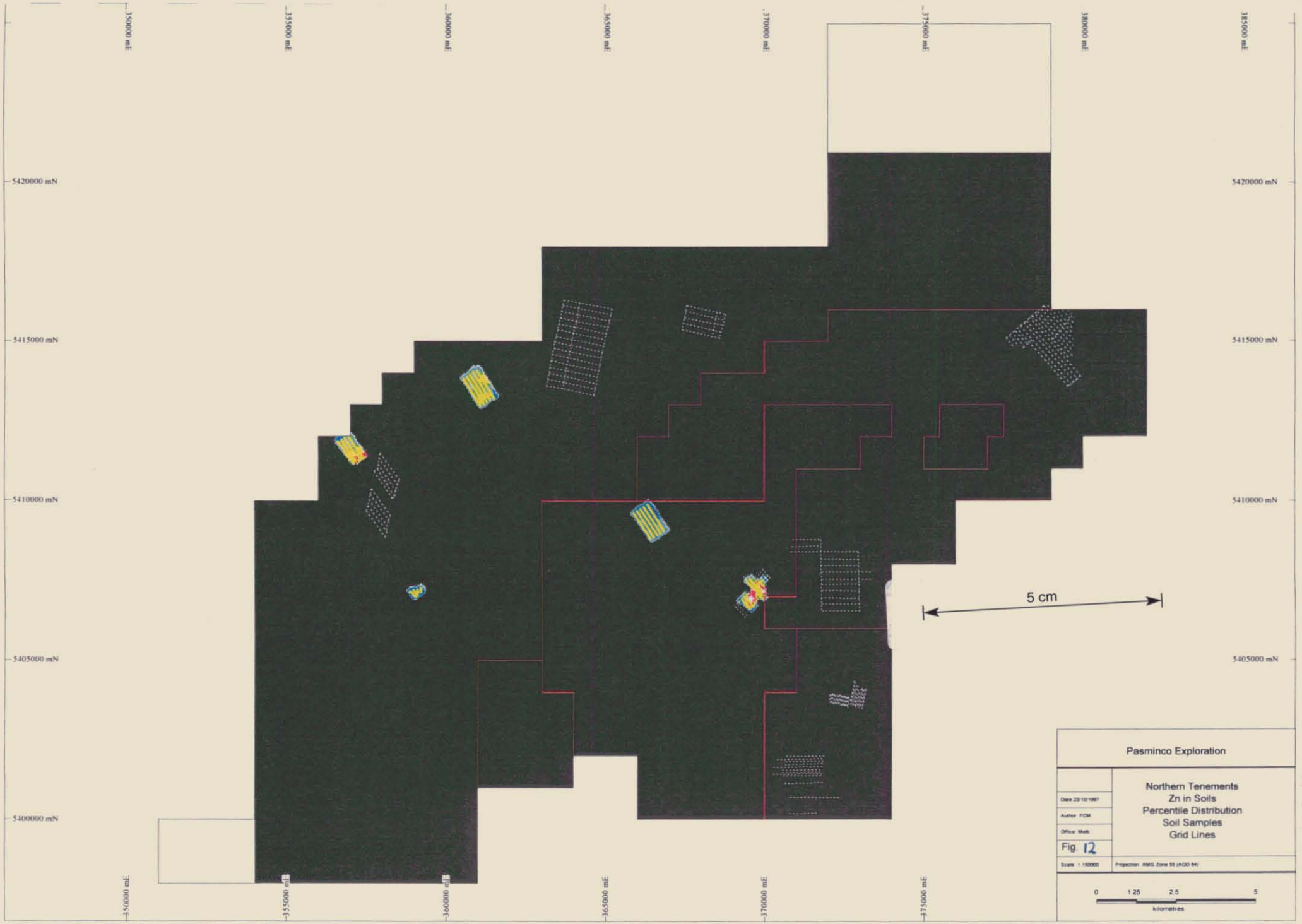
5 cm
Pasminco Exploration
Northern Tenements
Coincident Zn/Pb/Cu in Streams
RGB Image
Stream Sediment Samples
Drainage
Date 23/10/1997
Author FCM
Office Melb
Fig. 11
Scale 1:150000
Projection AMG Zone 55 (AGD 84)
0 1.25 2.5 5
kilometres

27 2023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5 cm
Pasminco Exploration
Northern Tenements
Zn in Soils
Percentile Distribution
Soil Samples
Grid Lines
Fig. 12
0 1.25 2.5 5
kilometres

21/2024

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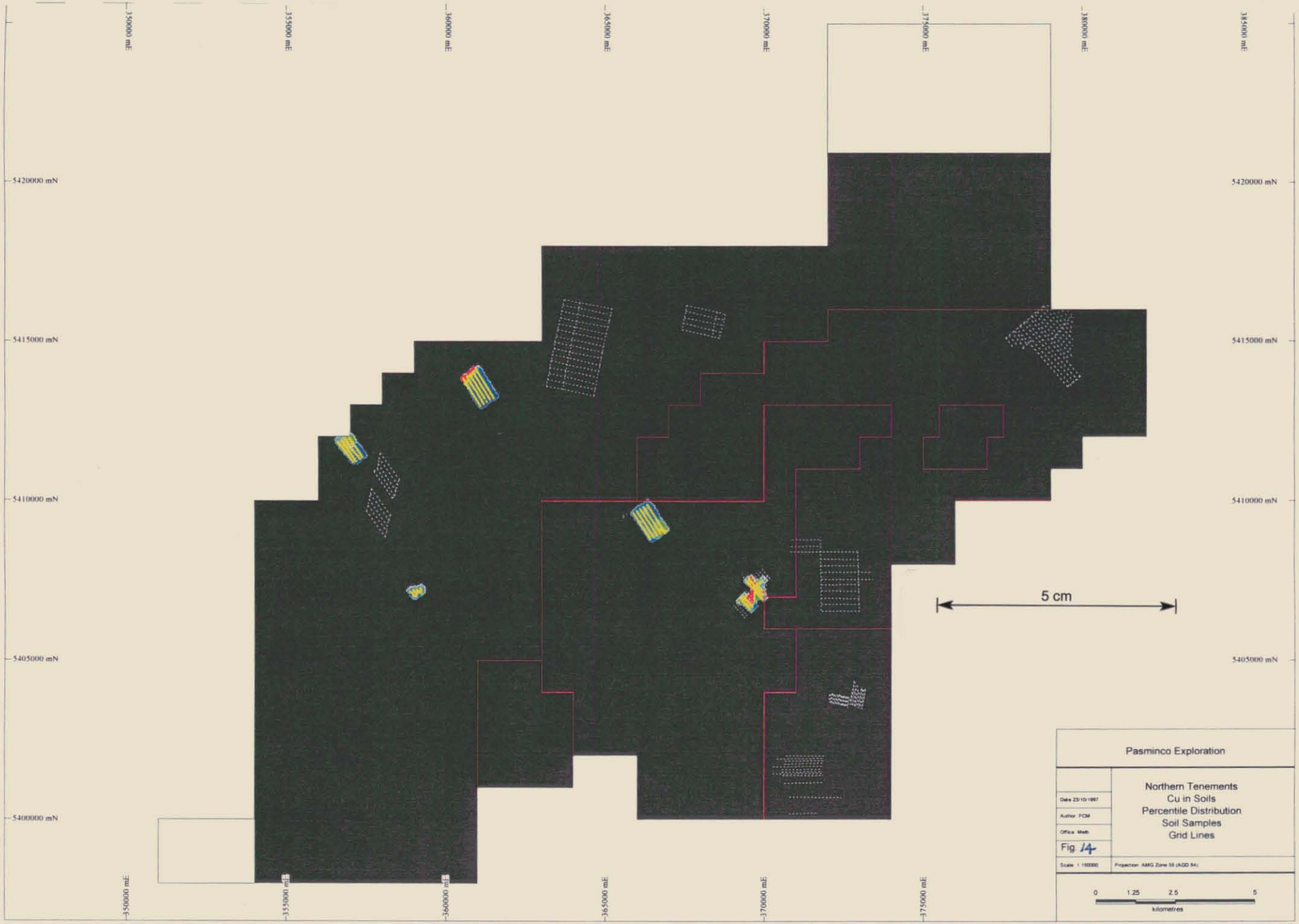
5 cm
Pasminco Exploration
Northern Tenements
Pb in Soils
Percentile Distribution
Soil Samples
Grid Lines
Fig. 13
Scale 1:150000
Projection: AMG Zone 55 (AGD 84)
0 1.25 2.5 5
kilometres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5 cm
Pasminco Exploration
Northern Tenements
Cu in Soils
Percentile Distribution
Soil Samples
Grid Lines
Date 23/10/1997
Author FCM
Office Melb
Fig 14
Scale 1:150000
Projection AMG Zone 55 (AGD 84)
0 1.25 2.5 5
kilometres

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385000 mE

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5405000 mN
5400000 mN

5 cm

Pasminco Exploration

Northern Tenements
Coincident Zn/Pb/Cu in Soils
RGB Image
Soil Samples
Grid Lines

Date 23/10/1997
Author FCM
Office Melb
Fig. 15
Scale 1:150000
Projection: AMG Zone 55 (AGD 84)

0 1.25 2.5 5
kilometres

21202?

350000 mE
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5 cm
Pasminco Exploration
Northern Tenements
Zn in Rocks
Percentile Distribution
Rock Chip Samples
Grid Lines
Access
Fig. 16
Scale 1:150000
Projection AMG Zone 55 (AGD 84)
0 1.25 2.5 5
kilometres

27202 8

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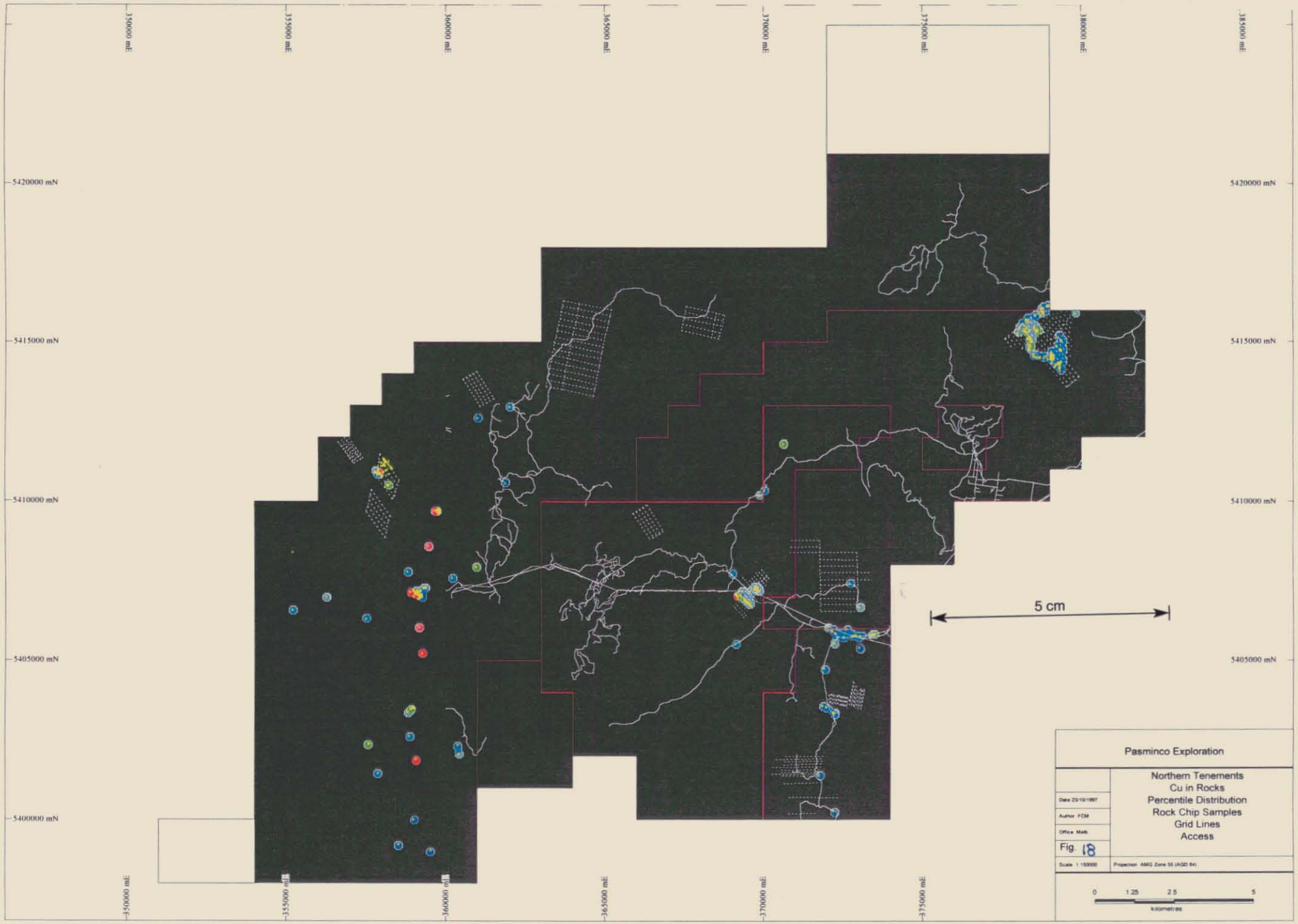
5 cm
Pasminco Exploration
Northern Tenements
Pb in Rocks
Percentile Distribution
Rock Chip Samples
Grid Lines
Access
Date 23/10/1997
Author FCM
Office Melb
Fig. 17
Scale 1:150000
Projection AMG Zone 55 (AGD 84)
0 1.25 2.5 5
kilometres

27/2023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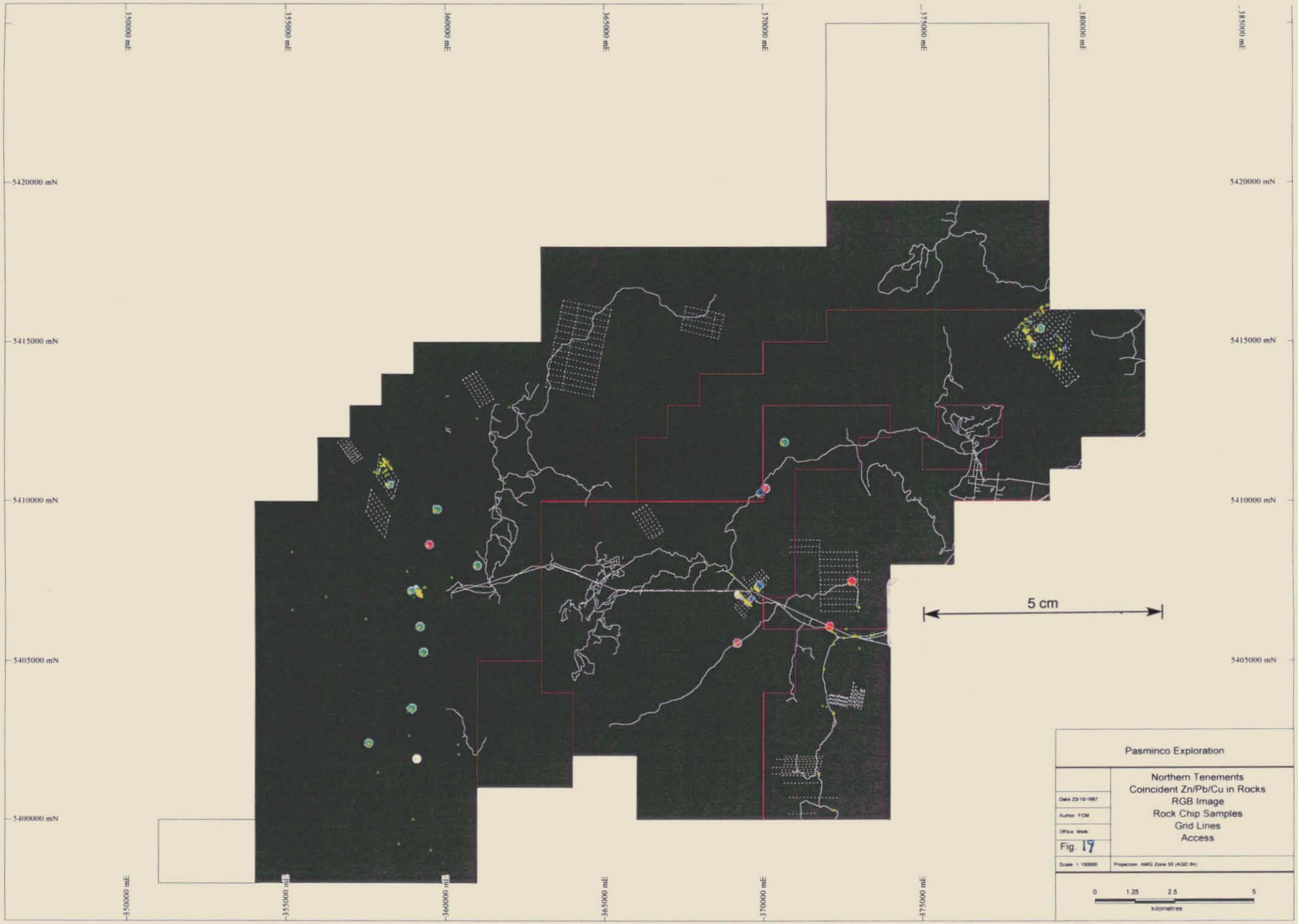
5400000 mN
5 cm
Pasminco Exploration
Northern Tenements
Cu in Rocks
Percentile Distribution
Rock Chip Samples
Grid Lines
Access
Date 23/10/1997
Author FCM
Office Melb
Fig. 18
Scale 1:150000
Projection AMG Zone 55 (AGD 84)
0 1.25 2.5 5
kilometres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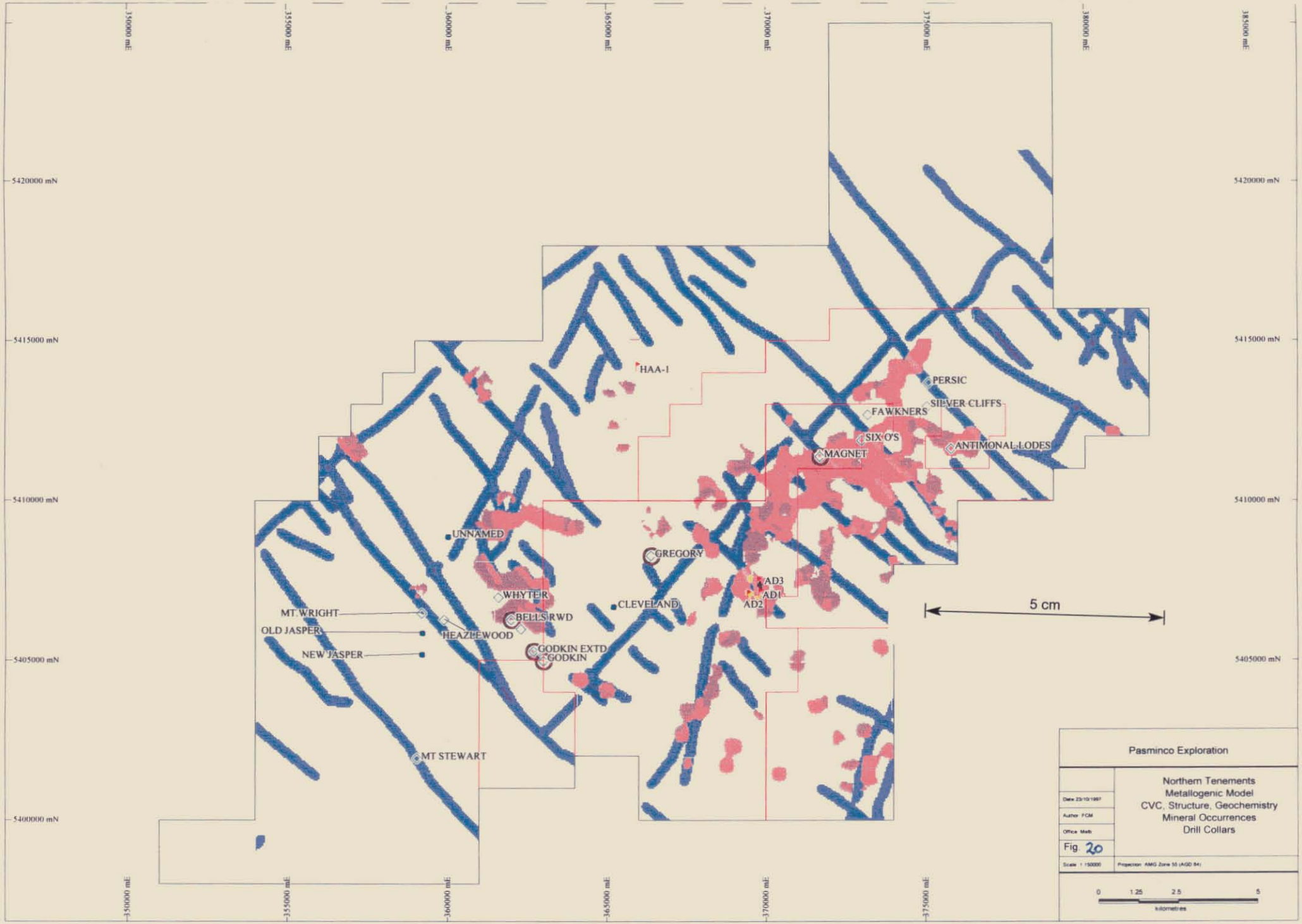
5405000 mN
5400000 mN
5 cm
Pasminco Exploration
Northern Tenements
Coincident Zn/Pb/Cu in Rocks
RGB Image
Rock Chip Samples
Grid Lines
Access
Date 23/10/1997
Author PCM
Office Melb
Fig. 17
Scale 1:150000
Projection AMG Zone 55 (AGD 84)
0 1.25 2.5 5
kilometres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5410000 mN
5405000 mN
5400000 mN
HAA-1
PERSIC
SILVER CLIFFS
FAWKNERS
SIX O'S
ANTIMONAL LODES
MAGNET
UNNAMED
GREGORY
AD3
AD1
AD2
WHYTER
CLEVELAND
BELLS RWD
MT WRIGHT
OLD JASPER
HEAZLEWOOD
NEW JASPER
GODKIN EXTD
GODKIN
MT STEWART
5 cm
Pasminco Exploration
Northern Tenements
Metallogenic Model
CVC, Structure, Geochemistry
Mineral Occurrences
Drill Collars
Date 23/10/1997
Author FCM
Office Melb
Fig. 20
Scale 1:150000
Projection AMG Zone 55 (AGD 84)
0 1.25 2.5 5
kilometres

27/2/0332