

WESTERN MINING CORPORATION LIMITED  
EXPLORATION DIVISION

ANNUAL REPORT  
FOR E.L. 4827 - MOUNT FREDERICK  
FOR YEAR ENDING 10TH DECEMBER, 1989

**OPEN FILE**

EMBER, 1989

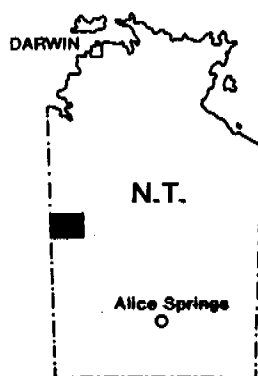
M. S. CONAN-DAVIES  
GEOLOGIST

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CR90/101

WESTERN MINING CORPORATION LIMITED  
EXPLORATION DIVISION

**Title:** ANNUAL REPORT FOR E.L. 4827 - MOUNT FREDERICK  
**Period:** 1ST APRIL, 1989 - 10TH DECEMBER, 1989  
**Author:** M. S. CONAN-DAVIES  
**Location:** TANAMI 1:250,000 SHEET SE 52-15  
**Commodity:** Au, (Pb, Zn, Ag)  
**Date:** 9TH DECEMBER, 1989  
**Keywords:** E.L. 4827, TANAMI, GEOLOGY, GEOPHYSICS, GEOCHEMISTRY,  
GOLD, BASE METALS



ABSTRACT

In 1989 WMC entered into a joint venture agreement with PNC to explore for gold and base metals with PNC Exploration (Australia) Limited. This report summarises exploration results obtained by WMC on E.L. 4827 for the period ending 10th December, 1989. Exploration activities included detailed regional studies of available data, and collection of surficial lags for geochemical testing, and ground magnetic data.

Expenditure during the period was \$18,291.

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## PLAN ACCOMPANYING REPORT

Plan No.

7048/62 : Area 21A Sample Location

Scale

1:5,000

## 1. INTRODUCTION

Exploration Licence No. 4827 is one in a series of E.L.s operated under a joint venture agreement with PNC Exploration (Australia) Limited. It is located some 750 km north-west of Alice Springs adjacent to the Northern Territory - Western Australia border, see Figure 1. The nearest service town is Halls Creek, 430 km to the north-west. Access to the area is via the well maintained Tanami Highway, and sandy tracks installed by PNC during an earlier phase of exploration.

This is one in a series reports which presents the results of exploration by WMC on ground covered by a joint venture agreement between WMC and PNC known as the Western Desert Joint Venture. (WDJV). A summary of licences covered by the WDJV and additional licences held by WMC in its own right and being explored concurrently is included in Table 1. Each report covers work carried out for the period beginning 1st April, 1989 and ending 10th December, 1989, corresponding to the commencement of the J.V. and the anniversary date of the tenement respectively. PNC will report their activity separately.

Although the commencement date of the J.V. agreement is 1st April, 1989 it was not possible to start field work until July, which resulted in a limited but intense period of active exploration during the 1989 season.

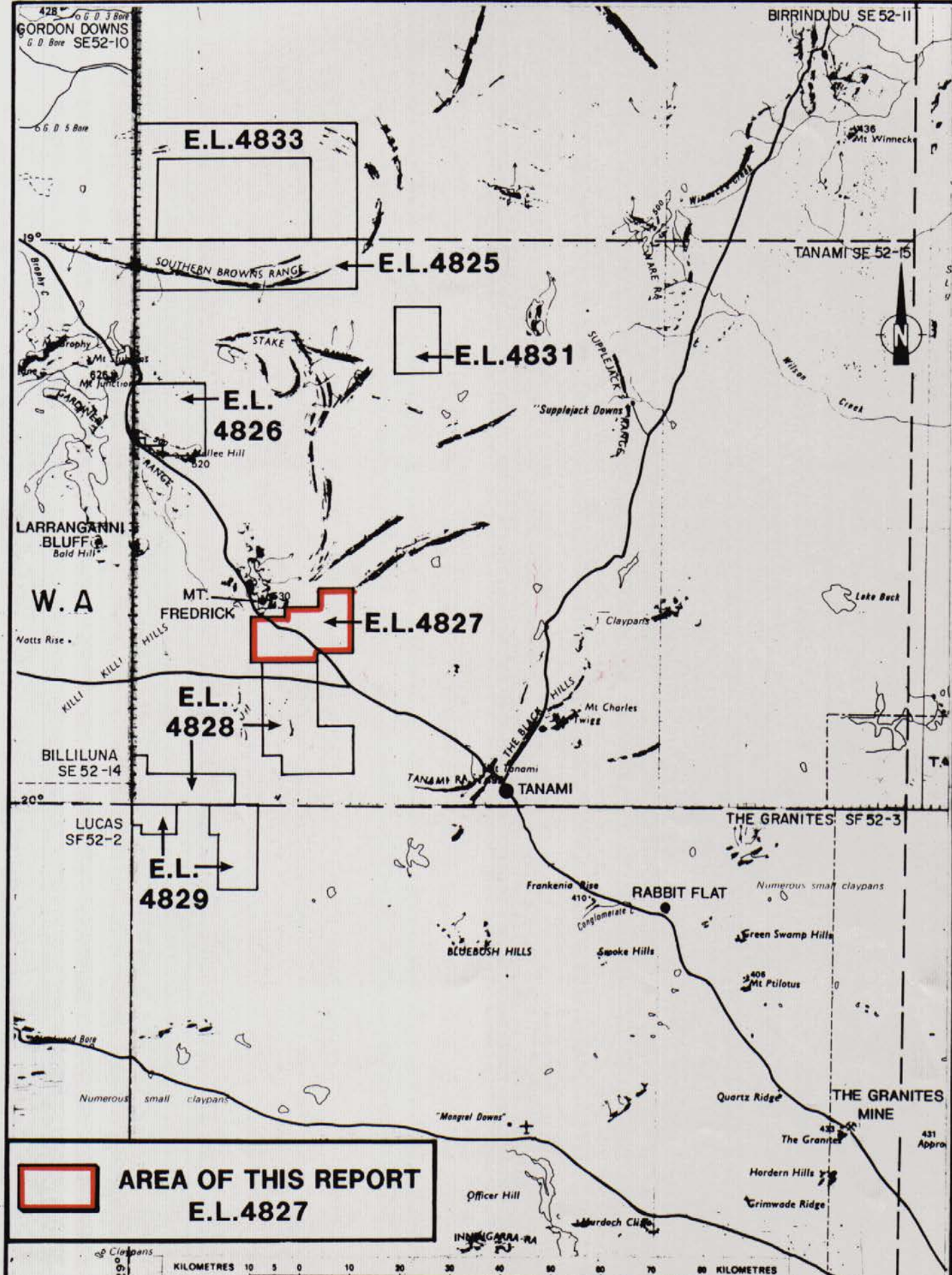
The aim of exploration is the search for stratabound and vein gold deposits in areas with similar geology to The Granites and Tanami gold mines. These mines occur in units of the early Proterozoic Granites-Tanami Complex.

Exploration activities conducted by WMC this year consisted of an assessment of currently available open file and published data, as well as data available from PNC. Following this review of data a programme of reconnaissance lag sampling, magnetometer surveys and reconnaissance mapping were undertaken and these are summarised in this report.

## 2. LOGISTICS

The location of the area necessitated a high cost for the establishment and servicing of an exploration program. Engaged in a joint venture project, many camp facilities were already established by PNC and these were shared, with WMC paying for supplies and the use of camp facilities.

Personnel were flown into the area by light aircraft from Alice Springs on a three weeks in, one week out roster. This was possible due to the availability of PNC's landing strip some 30 km from the PNC camp. Freight was transported by road via Halls Creek and Alice Springs.



**AREA OF THIS REPORT  
E.L.4827**

<b>WESTERN MINING CORPORATION LIMITED - EXPLORATION DIVISION</b>		<b>Scale</b> 1:1 000 000
<b>Map Ref.</b> SE/SF 52	<b>LOCATION PLAN E.L.4827</b>	<b>Figure No.</b> 1
<b>Date</b> 6.12.89		<b>Plan No.</b>
<b>Author</b> D.A.B. M.C.D.		7048/56
<b>Revised</b>		WESTERN DESERT JOINT VENTURE — N.T.

# WMC TENEMENT STATUS SUMMARY

## WESTERN DESERT J.V.

<u>E.L. No.</u>	<u>Area km<sup>2</sup></u>	<u>State</u>	<u>Grant Date</u>	<u>Expiry</u>
4825	438	N.T.	10.12.85	09.12.91
4826	213	N.T.	10.12.85	09.12.91
4827	231	N.T.	10.12.85	09.12.91
4828	422	N.T.	10.12.85	09.12.91
4829	177	N.T.	10.12.85	09.12.91
4831	113	N.T.	10.12.85	09.12.91
4833	483	N.T.	10.12.85	09.12.91
80/693	110	W.A.	20.01.87	19.01.92
80/694	120	W.A.	20.01.87	19.01.92
80/851	70	W.A.	06.10.87	05.10.92
80/852	100	W.A.	06.10.87	05.10.92

## TANAMI 100% WMC

<u>E.L. No.</u>				
6457 (Killi Killi)	467	N.T.	23.05.89	22.05.95
6458 (Pargee)	64	N.T.	23.05.89	22.05.95
6459 (Claypan Well)	103	N.T.	22.05.89	21.05.95
6567 (Nongra)	46	N.T.	06.11.89	05.11.95

TABLE 1

Punctures to field vehicles was a serious problem and considerable field time was lost due to changing and repairing tyres. Some 200 punctures were encountered in three months. The use of specialised tyres is being investigated for use in the 1990 field season.

Satellite position-fixing, using a GPS receiver, was utilised for obtaining AMG control of grids and airphoto interpretations. This was necessary due to the lack of topographic or cultural features in the Tanami from which AMG location could be determined accurately.

### 3. REGIONAL GEOLOGY

The exploration conducted by the Western Desert Joint Venture are directed at the Archean to Middle Proterozoic Granites-Tanami block. The reader is referred to a comprehensive report by Blake, Hodgson and Muhling (1979) and the extensive open file reports by PNC. These works have provided the bulk of background data from which the regional exploration by PNC has been based. A brief summary of the report by Blake *et al.* with modifications based on PNC work is set out below. A schematic regional geology map provided by PNC is illustrated by Figure 2, and a stratigraphic column is illustrated in Figure 3.

Stratigraphic drilling by PNC in 1988 has indicated the presence of Archean rocks within the Tanami Complex. The oldest rocks were obtained from the core of the Browns Range Dome and have been dated by the BMR at 3.2-3.4 b.y. Rocks which form the Archean core have been informally named the Jilla Jilla Complex by PNC. Principal rock types of the Jilla Jilla complex include; granites, gneisses, mafic intrusives and amphibolite facies quartzite.

The Tanami Complex is a series of very poorly exposed meta-sedimentary and meta-volcanic rocks of greenschist facies metamorphism. Areas of outcrop are usually pervasively weathered, lateritized or silicified making geological mapping difficult. The complex is divided by the BMR into five units based on the differences in interpreted depositional environment of each unit, and their geographical separation. The lack of recognised marker beds makes stratigraphic correlation of these subdivisions difficult. PNC has reported an unconformable contact between Mt. Charles beds and younger Killi Killi beds. Of these units the Mt. Charles beds, Killi Killi and Nongra beds occur on tenements under investigation. The most important of these units from the exploration point of view is the Mt. Charles sequence which is host to all the known gold mineralisation including The Granites and Tanami gold mines. It is in this unit that J.V. exploration has concentrated.



The Mt. Charles beds are characterised by thin bedded laminated silicified and cherty siltstones and phyllitic siltstones. These vary widely in colour from black to red, green and white. The sediments are often well banded and in certain cases contain sufficient magnetite, hematite or unspecified iron oxides to be termed as Banded Iron Formation. The high proportion of fine grained sediments in the Mt. Charles beds leads to the interpretation that they were deposited in a quiescent shallow water environment free of large influxes of terrigenous material. Restricted circulation of basin waters may have resulted in the deposition of carbonaceous and pyritic shales.

The Killi Killi beds are best exposed in the western portion of The Granites-Tanami block. These rocks consist of medium to fine grained greywackes forming beds about 1 m thick. Cross-bedding, graded beds and coarse gritty intervals are also present.

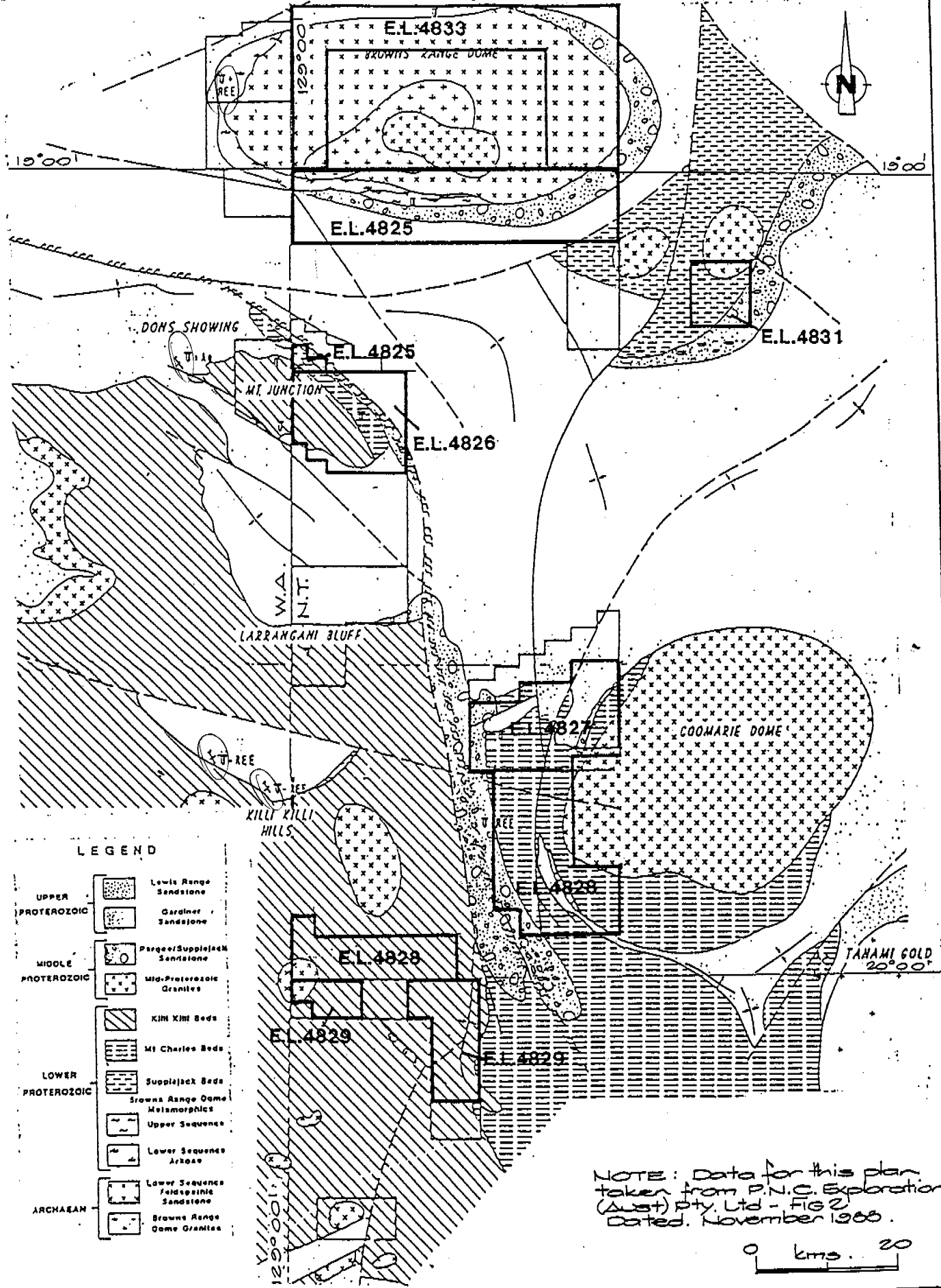
In contrast to the Mt. Charles beds the Killi Killi beds are interpreted to have been deposited by turbidity currents, in water deeper than those which deposited the Mt. Charles beds. Clasts within the sediments suggest a mixed igneous-metamorphic provenance.

The Pargee Sandstone is a transitional tectonic domain clastic sediment of intermediate age between the older Tanami complex and the younger Birrindudu Group sediments. The Pargee is a possible lateral equivalent of the volcano-sedimentary Mt. Winneke Formation and the Suplejack Downs Sandstones. Poorly sorted, medium grained lithic, sub-lithic and quartz arenites are the principal lithologies of the Pargee Sandstone. These are tentatively interpreted as being of shallow marine origin. The rocks are steeply dipping to overturned with tight folds. The formation is often intensely silicified with abundant quartz veins.

The Birrindudu Group is a platform sequence of sediments which overlie unconformably the Pargee Sandstone and older units. It is the most extensive pre-Cainozoic sedimentary package within the exploration area. It forms most of the prominent hills ridges and bluffs. The rocks consist of relatively undeformed and unmetamorphosed sandstones. Dating by K-Ar and Rb-Sr of glauconite give an age of  $1560 \pm 20$  my (Page *et al.* 1976) for the top of the Gardiner Sandstone. The presence of glauconite and stromatolites is indicative of a shallow marine depositional environment.

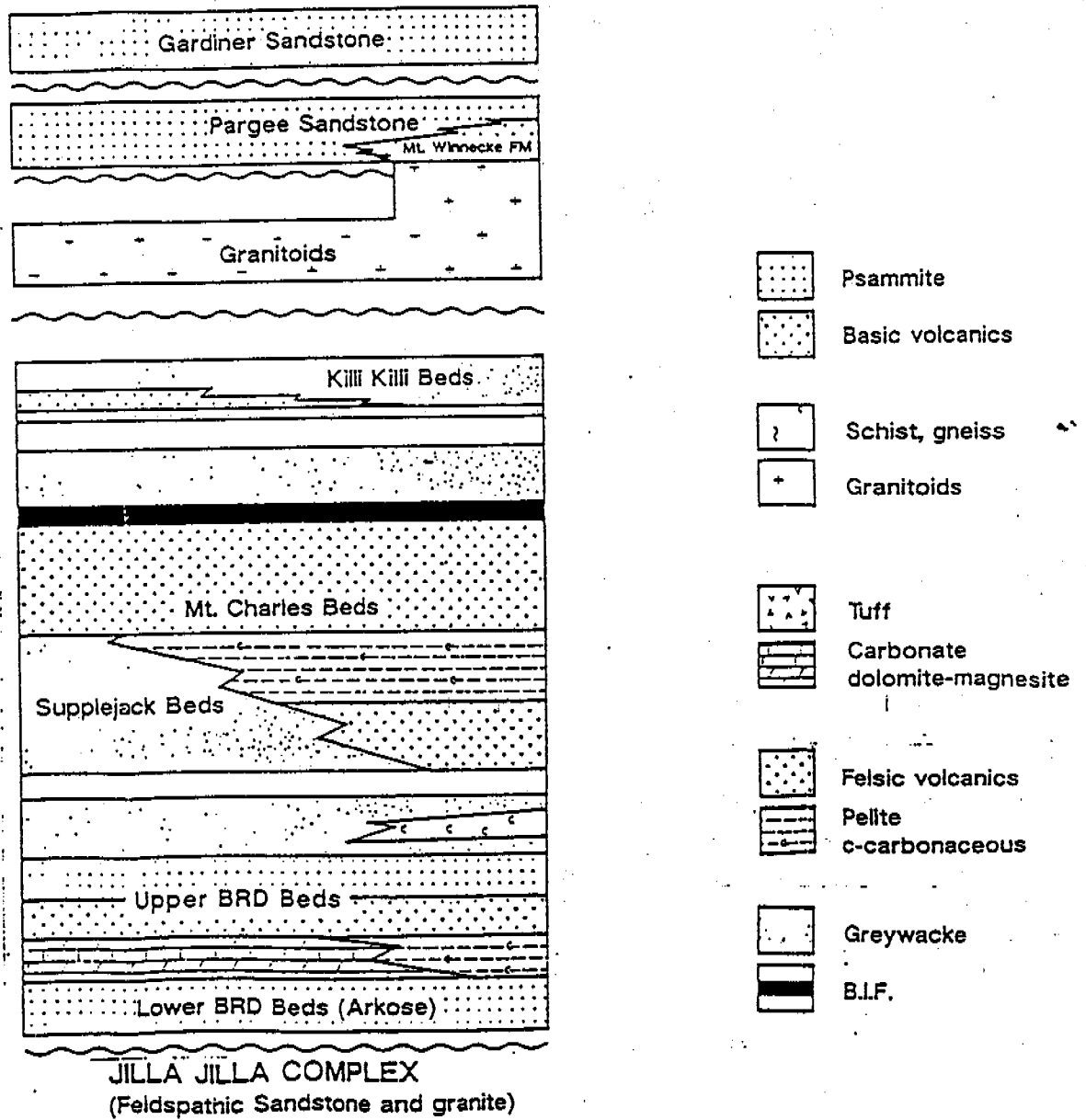
Granitic intrusions of the late Early Proterozoic are widespread throughout the Granites-Tanami block. Isotopic ages for the granitic intrusions are in the 1820 to 1700 m.y. time span (Page *et al.* 1978). The outcrop distribution underscores the widespread nature of granite intrusions within the block. Many of the intrusions are covered by Cainozoic sediments and their existence is only inferred from aeromagnetics, or dome structures in platform rocks. The exposed granites form a lithologically consistent suite of biotite adamellites.





<b>WESTERN MINING CORPORATION LIMITED - EXPLORATION DIVISION</b>		Scale
Map Ref.		Figure No. <b>2.</b>
Date	11.12.89	Plan No.
Author	M.C.D. D.A.B.	
Revised		
<b>GEOLOGICAL INTERPRETATION PLAN</b> <b>TANAMI AREA.</b> (After P.N.C. 1988) <b>WESTERN DESERT JOINT VENTURE.</b>		

## THE GRANITES-TANAMI BLOCK



**Figure 3: The Granites-Tanami Block Stratigraphy**

(modified after PNC, 1987)

Minor mafic and ultramafics have been recorded on the margins of Coomarie Domes within Mt. Charles and Killi Killi units of the Tanami Complex. Gabbroic sills are also noted in Killi Killi beds in southern areas of the Billiluna sheet area.

#### 4. EXPLORATION RESULTS

##### 4.1 Regional Investigations

Initial interest in the Tanami Block was generated from a review of published geological and geophysical data. Through our past experience in Proterozoic terrains both in Australia and overseas it became apparent that a large part of the Granites-Tanami block was prospective for gold mineralisation. It was determined that a more thorough appraisal of all available data was necessary. Various sources of data were reviewed and are discussed below.

(i) Open File Data Review

Open file reports have been reviewed and the relevant data collated. The open file reports provide a valuable supplement to published geological maps. Additional exploration data on current tenements was made available to us by PNC upon commencement of the W.D.J.V.

(ii) Mine Visits

Visits were arranged to the two currently producing mines in the Tanami block located at The Granites and Tanami.

(iii) TM Imagery

TM Imagery covering the Tanami block has been purchased and processed by WMC. Images were generated using various band combinations and digital filters. Interpretation of the images compliments regional geological maps.

(iv) Geophysics

The major regional geophysical data base has been image-processed BMR aeromagnetics. This has been superseded in selected areas by open file magnetic surveys, PNC aeromagnetic surveys, and recently released NTDME 1:100,000 coverage of The Granites 1:250,000 sheet. This data is currently being processed and enhanced using WMC facilities.

#### 4.2 Geology

Regional investigations, principally resulting from interpretation of aeromagnetic data combined with geological mapping as reported by PNC and the BMR indicated the occurrence of favourable units of Mt. Charles beds and mafic and ultramafic units within E.L. 4827. As a result of this, a programme of geological, geophysical and geochemical investigation was undertaken.

The principal area of interest is centred on a low laterite capped rise (19°44'S, 129°18'E). Outcrop in the areal is very limited and intensely ferruginised. Principal rock types include siltstones, cherty siltstones and finely banded ferruginous chert-jaspilite rocks of the Mt. Charles beds. Structure is difficult to interpret due to poor outcrop but appears steeply dipping and striking NNW.

Reconnaissance geological traverses were also carried out in the northern portion of E.L. 4827 where further outcrops of fine-grained Mt. Charles beds occur. Costeans dug by PNC were inspected to gain better exposure of the structural complexity of Mt. Charles beds.

#### 4.3 Geochemistry

A grid was established by WMC over an area previously sampled by PNC where low level anomalies of copper and arsenic were outlined. The WMC grid was established using the pre-existing PNC baseline oriented at 356½° magnetic. Line spacing was 400 metres with composite samples collected at 20 metre intervals and bulked together every 40 metres. A total of 97 geochemical samples were collected covering 4.18 line km. Sample localities and sample string numbers are included in the appendix. Sample intervals were increased in areas where little collectable material was present. A satellite navigation device was used for grid control.

All samples were collected and sieved to -6 + 2 mm mesh size. At least 100 grams per sample was collected.

Samples were sent to the Western Mining laboratory in Ballarat, Victoria, for assay of Au, As, Cu, Pb, Zn, Mn. Samples were crushed to -200 µm nominal mesh. This was followed by a Nitric Perchloric digestion to dryness followed by an HCl leach. This solution was read by graphite furnace AA for gold and normal AA for base metals. Assay results for lag samples and stream sediments will be presented in the next annual report following statistical treatment of the complete data set.

4.4 Geophysics

A limited ground magnetic survey covering 1.4 km of the geochemical grid was completed using a Geometrix G816 Proton Precession magnetometer with a three metre pole. Line spacing was 400 metres with readings recorded every 10 metres. The results are included in Appendix A.

This survey was of a reconnaissance nature with the purpose of testing measurement and processing techniques to be used later as the project advances. Initial results indicate irregular concentrations of variably magnetic laterite which causes a very spiky response which which obscures the regional magnetic response. A decision on the best way to resolve this problem is currently being assessed.

5. PROPOSED PROGRAMME

Further work on E.L. 4827 will be contingent on obtaining favourable results from the current year's geochemical survey. Further sampling around the margin of the Coomarie Dome is anticipated. Where appropriate, Sirotem and possibly IP will be used in favourable areas. In areas of strong geochemical and/or geophysical anomalism, RAB or RC drilling will take place late in the year.

6. EXPENDITURE

Expenditure incurred from the inception of WMC involvement in the area to October 31, 1989 is summarised below. These figures reflect mainly the regional studies described above, which have been distributed between the various tenements in the overall project.

	<u>Total</u>
Geology	9,542
Geophysics	911
Geochemistry	1,944
Drafting	379
Analysis	1,327
Leasing	260
Administration	475
Overheads	3,453
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	\$18,291

7. REFERENCES

- Blake, D.H., 1974: Shallow stratigraphic drilling in The Granites - Tanami region Northern Territory and Western Australia, 1971-1973. Bur. Miner. Resour. Aust. Rec. 1974/104 (unpubl).
- Blake, D.G., and Hodgson, I.M., 1975: The Precambrian Granites - Tanami Block and Birrindudu Basin - geology and mineralisation; in Knight, C.L., (ed), Economic Geology of Australia and Papua New Guinea. Melbourne, Australas. Inst. Min. Metall.
- Blake, D.G., Hodgson, I.M., and Muhling, P.C., 1973: Geology of The Granites and Precambrian parts of Billiluna, Lucas and Stansmore 1:250,000 sheet areas, Northern Territory and Western Australia. Bur. Miner. Resour. Aust. Rec. 1973/171 (unpubl).
- Blake, D.G., Hodgson, I.M., and Muhling, P.C., 1979: Geology of The Granites - Tanami region, Northern Territory and Western Australia. Bur. Miner. Resour. Aust. Bull. 197.
- Brown, H.Y.L., 1906: Reports (Geological and General) resulting from the Explorations made by the Government Geologist and staff during 1905.
- Clark, A.B., and Blockley, J.G., 1961: A report on the geological reconnaissance temporary reserve 1784H, Kimberley Goldfield, Western Australia. New Consolidated Goldfields (Australasia) Pty. Ltd.
- CRA Exploration, 1974: Report on Exploration E.L. 815 (Black Peak) for Period 4th January 1973 to 3rd January 1974 by C. Marmont. Open File Report CR74/9.
- CRA Exploration, 1975: Report on E.L. 815 by C. McElroy and Associates. Open File Report CR74/46.
- Crohn, P.W., 1969: Visit to Granites Goldfield, October 1960. Bur. Miner. Resour. Aust. Rec. 1961/157 (unpubl).
- Daly, J., 1962: Granites geophysical survey, N.T. 1939. Bur. Miner. Resour. Aust. Rec. 1962/154 (unpubl).
- Enterprise Exploration Co. Pty. Ltd., 1961: Geological, Geophysical and Geochemical Plans of the Tanami Area. Open File Report CR61/3.

- Exoil Company Pty. Ltd., 1965: Progress Report Tanami Magnetic Anomaly A.P. 1284  
Open File Report CR65/8 (plus accompanying reports - CR65/9A, 65/29, 66/16).
- Felstone Investments Pty. Ltd., 1988: Final report E.L. 5964 Mongrel Downs 12.05.88 to 15.08.88.  
Open File Report CR88/360.
- Gee, L.C.E., 1911: General Report on the Tanami Goldfield and District.
- Geopeko Ltd., 1970: Final report A.P. 2336. Open File Report CR70/27.
- Gibson, D.F., 1986: A biological survey of the Tanami Desert in the N.T. Conservation  
Commission of the N.T. Technical Report 30.
- Hall, G., 1953: The Granites Goldfield; in Edwards, A.B., (ed), Geology of Australian Ore  
Deposits; 5th Emp. Min. metall. Congr., Melbourne, 317 - 321
- Hossfeld, P.S., 1940a: Preliminary report on The Granites Goldfield, Central Australia.  
Aer. geol. geophys. Surv. N. Aust., N.T. Rep 30.
- Hossfeld, P.S., 1940b: The gold deposits of The Granites - Tanami district, Central  
Australia. Aer. geol. geophys. Surv. N. Aust., N.T. Rep 43.
- Ireland, T.J., 1989: The Geology of The Granites Gold Deposits, Northern Territory, in  
Jones, D.G. (ed), Northern Territory Gold Deposits, Bicentennial Gold 88 Excursion  
Guidebook No. 4, University Extension, Univ. of W.A. publ. 16, p59-63.
- Ireland, T.J., and Mayer, T.E., 1984: The geology and mineralisation of The Granites gold  
deposits, Northern Territory. Aus. I.M.M. Conference, Darwin, 1984 397-405.
- Kleeman, A.W., 1934: An adamellite from "The Granites", Northern Territory,  
Trans. Roy. Soc. S. Aust., 58, 234-6.
- McAdam, R., and Clavarino, J.G., 1988: The Granites Gold Mine and Associated Tenements.  
A Review for Potts West Trumbull and Company. Minproc Engineers Pty. Ltd.  
unpubl.
- Mayer, T.E., (in press): The Granites Goldfield, in, The Geology of Mineral Deposits of  
Australia and Papua New Guinea. Aus. I.M.M.



North Flinders Mines Limited, 1988, Annual Report.

Page, R.W., Blake, D.A., and Mahon, M.W., 1976: Geochronology and related aspects of acid volcanics, associated granites and other Proterozoic rocks in The Granites - Tanami region, northwestern Australia. BMR J. Aust. Geol. Geophys., 1 (1), 1-13.

PNC Exploration (Australia) Pty. Ltd., 1989: E.L.s 4825-29, 4831 and 4833 - Relinquishment Report The Granites - Tanami, 1986 - 1988. N.T. Open File Report CR89/071.

PNC Exploration (Australia) Pty. Ltd., 1988: E.L.s 4831-33 - Field Season Report N.T. Open File Report CR88/205A-F.

PNC Exploration (Australia) Pty. Ltd., 1989: E.L.s 4825-29, E.L. 4831 and E.L. 4833 - Field Season Report - The Granites - Tanami Project 1988. N.T. Open File Report CR89/156.

PNC Exploration (Australia) Pty. Ltd., 1988: E.L.s 4825-31 - Field Season Report N.T. Open File Report CR88/205A-F.

Spence, A.G., 1964: Tanami - The Granites airborne magnetic and radiometric survey, Northern Territory, 1962. Bur. Miner. Resour. Aust. Rec. 1964/102 (unpubl).

Zapopan, N.L., and its subsidiary companies, 1988: Annual Report.

**A P P E N D I X     A**

**GROUND   MAGNETICS   DATA**

# MAGNETICS FIELD SHEET

Sheet No.

01 63

(TYPE 2)

PROJECT TANAMI

First Station

02 C2N 600

Prospect 21A

Last Station

03 C2N 2000

Traverse C2N

Date 16-8-89

Station Spacing

04 10

Line Id

Obs. V.S. / R.E.

Inst/SN 5816 / 1620

Stn. Ref.	Time	Reading	Co-ords	Com #
3	7 8 11 12	13 14 15 16	17 18	19
05	3 718	51757		
05	733	559	600E	
05		571	10	
05		592	20	
05		602	30	
05		599	40	
05		615	50	
05		618	60	
05		611	70	
05		554	80	
05		536	90	
05		536	700E	
05		496	10	
05		529	20	
05		590	30	
05		583	40	
05		598	50	
05		650	60	
05		602	70	
05		575	80	
05		577	90	
05		558	800E	
05		593	10	
05		599	20	
05		557	30	
05		585	40	
05		611	50	
05		611	60	
05		558	70	
05		606	80	
05		601	90	
05		601	900E	
05		580	10	
05		588	20	
05		644	30	

Stn. Ref.	Time	Reading	Co-ords	Com #
3	7 8 11 12	13 14 15 16	17 18	19
05		51686	940E	
05		613	50	
05	741	750	60	
05		677	70	
05		640	80	
05		632	90	
05		634	1000E	
05		657	10	
05		600	20	
05		641	30	
05		623	40	
05		605	50	
05		641	60	
05		619	70	
05		594	80	
05		612	90	
05		621	1100E	
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05		610	30	
05		583	40	
05		601	50	
05		591	60	
05		588	70	
05		568	80	
05		585	90	
05		588	1200E	
05		590	10	
05		588	20	
05		581	30	
05		579	40	
05		586	50	
05		574	60	
05		565	70	
05		575	80	

# MAGNETICS FIELD SHEET

Sheet No.

01 64

(TYPE 2)

PROJECT TANAMI

Prospect 21A

Traverse C2N

Date 16-8-89

Obs. V.B./R.E.

Inst/SN 2816/1620

First Station N E

02 1 23

Last Station N E

03 1 23

Station Spacing Line Id

04 8 14

Stn. Ref.	Time	Reading	Co-ords	Com #
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05	748	582	1300E	
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05		599	20	
05		591	30	
05		587	40	
05		585	50	
05		578	60	
05		582	70	
05		574	80	
05		583	90	
05		582	1400E	
05		574	10	
05		588	20	
05		580	30	
05		570	40	
05		573	50	
05		575	60	
05		623	70	
05		599	80	
05		585	90	
05		587	1500E	
05		588	10	
05		585	20	
05		585	30	
05		584	40	
05		594	50	
05		569	60	
05		633	70	
05		585	88	
05		575	70	
05		597	1600E	
05		590	10	
05		607	20	
05		628	30	

Stn. Ref.	Time	Reading	Co-ords	Com #
3 7 8	11 12	13 14 15 16	17 18	19
05		51596	1640E	
05	757	627	50	
05		495	60	
05		547	70	
05		560	80	
05		611	90	
05		577	1700E	
05		590	10	
05		637	20	
05		639	30	
05		602	40	
05		634	50	
05		658	60	
05		670	70	
05		667	80	
05		653	90	
05		634	1800E	
05		650	101	
05		692	20	
05		684	30	
05		701	40	
05		721	50	
05		665	60	
05		659	70	
05		675	80	
05		643	90	
05		679	1900E	
05		709	10	
05		623	20	
05		654	30	
05		627	40	
05		599	50	
05		652	60	
05		631	70	
05		612	80	



# MAGNETICS FIELD SHEET

Sheet No.

01 66

(TYPE 2)

PROJECT TANAMI

First Station

02 CN3 2000E

Prospect 21A

Last Station

03 CN3 600E

Traverse CN3

Date 16-8-89

Station Spacing

04 10

Line Id

Obs. V.B./R.E.

Inst/SN G 816/1620

Stn. Ref.	Time	Reading	Co-ords	Com #
3 7 8 11 12 16				
05	3 7 8 11 12 16	51757	—	
05	8 13	51560	2000E	
05		583	90	
05		562	80	
05		538	70	
05		572	60	
05		578	50	
05		559	40	
05		621	30	
05		731	20	
05		579	10	
05		586	1900E	
05		594	90	
05		667	80	
05		563	70	
05		591	60	
05		537	50	
05		557	40	
05		596	30	
05		632	20	
05		568	10	
05		627	1800E	
05		601	90	
05		638	80	
05		646	70	
05		631	60	
05		642	50	
05		693	40	
05		659	30	
05		507	20	
05		696	10	
05		568	1700E	
05		581	90	
05		592	80	
05		570	70	

Stn. Ref.	Time	Reading	Co-ords	Com #
3 7 8 11 12 16				
05		51667	1600E	
05	8 22	679	50	
05		737	40	
05		655	30	
05		687	20	
05		647	10	
05		738	1600E	
05		568	90	
05		597	80	
05		507	70	
05		649	60	
05		616	50	
05		584	40	
05		554	30	
05		564	20	
05		560	10	
05		585	1500E	
05		577	90	
05		580	80	
05		574	70	
05		575	60	
05		571	50	
05		570	40	
05		570	30	
05		571	20	
05		570	10	
05		565	1400E	
05		573	90	
05		567	80	
05		570	70	
05		570	60	
05		575	50	
05		580	40	
05		564	30	
05		581	20	

# MAGNETICS FIELD SHEET

Sheet No.

01 67

(TYPE 2)

PROJECT TANAMI

Prospect 21A

Traverse CN3

Date 16-8-89

Obs. V.B./R.E.

Inst/SN G816/1620

First Station N E

02 12 13 14 23

Last Station N E

03 12 13 14 23

Station Spacing Line Id

04 8 14

Stn. Ref.	Time	Reading	Co-ords	Com #
3	7 8	11 12	16	
05		51 571	1310E	
05	831	579	1300E	
05		568	90	
05		580	80	
05		603	70	
05		587	60	
05		580	50	
05		578	40	
05		566	30	
05		563	20	
05		562	10	
05		563	1200E	
05		570	90	
05		566	80	
05		570	70	
05		558	60	
05		573	50	
05		570	40	
05		560	30	
05		565	20	
05		575	10	
05		564	1100E	
05		572	90	
05		587	80	
05		570	70	
05		587	60	
05		549	50	
05		566	40	
05		562	30	
05		566	20	
05		548	10	
05		622	1000E	
05		581	90	
05		550	80	
05		589	70	

Stn. Ref.	Time	Reading	Co-ords	Com #
3	7 8	11 12	16	
05		51 492	960E	
05	839	1 672	50	
05		590	40	
05		550	30	
05		598	20	
05		627	10	
05		495	900E	
05		626	90	
05		526	80	
05		533	70	
05		561	60	
05		552	50	
05		547	40	
05		554	30	
05		578	20	
05		661	10	
05		620	800E	
05		610	90	
05		600	80	
05		562	70	
05		605	60	
05		625	50	
05		642	40	
05		543	30	
05		520	20	
05		552	10	
05		577	700E	
05		682	90	
05		532	80	
05		513	70	
05		507	60	
05		609	50	
05		631	40	
05		558	30	
05		555	20	



# MAGNETICS FIELD SHEET

Sheet No.

01 68

(TYPE 2)

PROJECT TANAMI

First Station

02 [grid] N E

Last Station

03 [grid] N E

Station Spacing

04 [grid]

Line Id

[grid]

Prospect 21A

Traverse CN3

Date 16.8.89

Obs. V.B./R.E.

Inst/SN C816/1620

Stn. Ref.					Time	Reading		Co-ords		Com #
3	7	8	11	12		16	17	18		
05					51	53	610	E		
05				847	51	576	600	E		
05		3		901	51	755	-			

# MAGNETICS FIELD SHEET

Sheet No.

01 69

(TYPE 2)

PROJECT TANAMI

First Station N E  
 02 CN4 600

Prospect 21A

Last Station N E  
 03 CN4 2000

Traverse CN4

Date 16-8-89

Station Spacing Line Id  
 04 10

Obs. V.B./R.E.

Inst/SN G816/1620

Stn. Ref.	Time	Reading	Co-ords	Com #
3 7 8 11 12 16				
05	3	901	51755	—
05			51515	600E
05			622	10
05			556	20
05			533	30
05			547	40
05			562	50
05			528	60
05			556	70
05			582	80
05			505	90
05			551	200E
05			543	10
05			575	20
05			561	30
05			574	40
05			579	50
05			564	60
05			565	70
05			674	80
05			697	90
05			892	800E
05			525	10
05			524	20
05			536	30
05			461	40
05			474	50
05			634	60
05			635	70
05			615	80
05			680	90
05			508	900E
05			649	10
05			479	20
05			615	30

Stn. Ref.	Time	Reading	Co-ords	Com #
3 7 8 11 12 16				
05			51554	940E
05	932		650	50
05			582	60
05			570	70
05			619	80
05			593	90
05			563	1000E
05			551	10
05			517	20
05			533	30
05			551	40
05			561	50
05			571	60
05			567	70
05			568	80
05			562	90
05			557	1100E
05			543	10
05			559	20
05			554	30
05			561	40
05			567	50
05			564	60
05			568	70
05			581	80
05			558	90
05			565	1200E
05			564	10
05			561	20
05			566	30
05			565	40
05			577	50
05			548	60
05			550	70
05			540	80

# MAGNETICS FIELD SHEET

Sheet No.

01 70

(TYPE 2)

PROJECT TANAMAI

Prospect 21A

Traverse CN4

Date 16-8-89

Obs. V.B./R.E.

Inst/SN 2816 / 1620

First Station N E

02 13 14 23

Last Station N E

03 13 14 23

Station Spacing Line Id

04 8 14

Stn. Ref.	Time	Reading	Co-ords	Com #			
3	7	8	11	12	16	16	16
05			51 574	1290E			
05	941		473	1300E			
05			525	10			
05			578	20			
05			568	30			
05			540	40			
05			515	50			
05			511	60			
05			589	70			
05			687	80			
05			613	90			
05			514	1400E			
05			515	10			
05			608	20			
05			545	30			
05			434	40			
05			552	50			
05			653	60			
05			552	70			
05			564	80			
05			535	90			
05			428	1500E			
05			581	10			
05			576	20			
05			552	30			
05			495	40			
05			602	50			
05			466	60			
05			320	70			
05			596	80			
05			263	90			
05			568	1600E			
05			596	10			
05			576	20			
05			242	30			

Stn. Ref.	Time	Reading	Co-ords	Com #			
3	7	8	11	12	16	16	16
05			51 653	1640E			
05	950		526	50			
05			540	60			
05			578	70			
05			584	80			
05			569	90			
05			528	1700E			
05			524	10			
05			631	20			
05			651	30			
05			574	40			
05			592	50			
05			670	60			
05			443	70			
05			267	80			
05			384	90			
05			553	1800E			
05			587	10			
05			539	20			
05			590	30			
05			625	40			
05			600	50			
05			535	60			
05			540	70			
05			499	80			
05			485	90			
05			496	1900E			
05			429	10			
05			479	20			
05			537	30			
05			551	40			
05			530	50			
05			464	60			
05			564	70			
05			519	80			

# MAGNETICS FIELD SHEET

Sheet No.

01 71

(TYPE 2)

PROJECT TANAMI

Prospect 21A

Traverse CN4

Date 16-8-89

Obs. V.B./R.E.

Inst/SN G816/1620

First Station N E  
 Last Station N E  
 Station Spacing 04 Line Id

Stn. Ref.					Time		Reading			Co-ords		Com #	Stn. Ref.					Time		Reading			Co-ords		Com #						
3	7	8	11	12	16	16	16	16	16	16	16	16	3	7	8	11	12	16	16	16	16	16	16	16	3	7	8	11	12	16	16
05									51411	1990E		05																			
05									51614	2000E		05																			
05		3	11	20					51733	-		05																			
05												05																			

# MAGNETICS FIELD SHEET

Sheet No.

01 72

(TYPE 2)

PROJECT TANAMI

Prospect 21A

Traverse CNS

Date 16-8-89

Obs. V.B./R.E.

Inst/SN G816/1620

First Station <sup>3</sup> <sub>6</sub> N E  
 02 CNS 2400

Last Station <sup>3</sup> <sub>6</sub> N E  
 03 CNS 600

Station Spacing <sup>3</sup> <sub>7</sub> Line Id <sup>8</sup> <sub>14</sub>  
 04 10

Stn. Ref.	Time	Reading	Co-ords	Com #	Stn. Ref.	Time	Reading	Co-ords	Com #
05	3	901	51755	—	05		51626	2060E	
05		1018	51632	2400E	05	1028	618	50	
05			599	90	05		647	40	
05			573	80	05		648	30	
05			565	20	05		622	20	
05			559	60	05		734	10	
05			521	50	05		565	2000E	
05			577	40	05		610	90	
05			612	30	05		609	80	
05			603	20	05		640	20	
05			540	10	05		672	60	
05			492	2300E	05		590	50	
05			503	90	05		576	40	
05			556	80	05		547	30	
05			512	70	05		564	20	
05			541	60	05		612	10	
05			544	50	05		495	1900E	
05			567	40	05		627	90	
05			613	30	05		493	80	
05			580	20	05		529	20	
05			530	10	05		492	60	
05			502	2200E	05		463	50	
05			459	90	05		629	40	
05			511	80	05		568	30	
05			536	70	05		542	20	
05			569	60	05		605	10	
05			499	50	05		622	1800E	
05			480	40	05		527	90	
05			532	30	05		425	80	
05			543	20	05		569	20	
05			500	10	05		554	60	
05			627	2100E	05		468	50	
05			672	90	05		533	60	
05			596	30	05		534	70	
05			642	20	05		582	20	

# MAGNETICS FIELD SHEET

Sheet No.

01 73

(TYPE 2)

PROJECT TANAMAI

Prospect Z1A

Traverse CNS

Date 16-8-89

Obs. V.B./R.E.

Inst/SN G816/1620

First Station N E  
 02 13 14 23

Last Station N E  
 03 12 13 14 23

Station Spacing Line Id  
 04 8 14

Stn. Ref.	Time	Reading	Co-ords	Com #
3	7	8	11	12
05		51602	1710E	
05	1038	51595	1700E	
05		437	40	
05		527	80	
05		570	70	
05		602	60	
05		612	50	
05		593	40	
05		532	30	
05		602	20	
05		601	10	
05		600	1600E	
05		534	90	
05		563	80	
05		721	70	
05		533	60	
05		517	50	
05		450	40	
05		640	30	
05		628	20	
05		633	10	
05		580	1500E	
05		572	90	
05		594	80	
05		560	70	
05		580	60	
05		589	50	
05		515	40	
05		535	30	
05		550	20	
05		552	10	
05		532	1400E	
05		548	90	
05		542	80	
05		583	70	

Stn. Ref.	Time	Reading	Co-ords	Com #
3	7	8	11	12
05		51541	1360E	
05	1050	556	50	
05		550	40	
05		539	30	
05		547	20	
05		570	10	
05		518	1300E	
05		559	90	
05		523	80	
05		522	70	
05		526	60	
05		518	50	
05		531	40	
05		534	30	
05		529	20	
05		530	10	
05		523	1200E	
05		527	90	
05		529	80	
05		491	70	
05		532	60	
05		529	50	
05		486	40	
05		514	30	
05		522	20	
05		531	10	
05		523	1100E	
05		553	90	
05		566	80	
05		536	70	
05		515	60	
05		563	50	
05		529	40	
05		485	30	
05		506	20	

MAGNETICS FIELD SHEET

Sheet No.

01 74

(TYPE 2)

PROJECT TANAMI

Prospect 21A

Traverse CN5

Date 16-8-89

Obs. V.B./R.E.

Inst/SN 2816/1620

First Station N E 02 1 12 13 14 23

Last Station N E 03 1 12 13 14 23

Station Spacing Line Id 04 3 7 8 14

Main data table with columns: Stn. Ref., Time, Reading, Co-ords, Comp #. Contains two columns of data points.



# MAGNETICS FIELD SHEET

Sheet No.

01 75

(TYPE 2)

PROJECT TANAMI

Prospect 21A

First Station N E  
 02 CNG 1000

Traverse CNG

Last Station N E  
 03 CNG 2400

Date 16-8-89

Station Spacing Line Id  
 04 10

Obs. V.B./R.E.

Inst/SN G816/1620

Stn. Ref.	Time	Reading	Co-ords	Com #
3	7 8	11 12	15 16	
05	3 11 20	51733	-	
05	12 02	51513	1000E	
05		517	10	
05		515	20	
05		514	30	
05		523	40	
05		507	50	
05		487	60	
05		539	70	
05		517	80	
05		512	90	
05		506	1100E	
05		521	10	
05		524	20	
05		517	30	
05		506	40	
05		512	50	
05		535	60	
05		511	70	
05		499	80	
05		503	90	
05		478	1200E	
05		461	10	
05		515	20	
05		483	30	
05		522	40	
05		522	50	
05		530	60	
05		419	70	
05		473	80	
05		536	90	
05		547	1300E	
05		548	10	
05		533	20	
05		490	30	

Stn. Ref.	Time	Reading	Co-ords	Com #
3	7 8	11 12	15 16	
05		51484	1340E	
05		421	50	
05	12 11	499	60	
05		539	70	
05		506	80	
05		585	90	
05		550	1400	
05		611	10	
05		446	20	
05		554	30	
05		537	40	
05		484	50	
05		554	60	
05		545	70	
05		629	80	
05		563	90	
05		833	1500E	
05		549	10	
05		777	20	
05		756	30	
05		712	40	
05		546	50	
05		566	60	
05		605	70	
05		540	80	
05		517	90	
05		604	1600E	
05		692	10	
05		591	20	
05		701	30	
05		599	40	
05		518	50	
05		511	60	
05		600	70	
05		518	80	

# MAGNETICS FIELD SHEET

Sheet No.

01 76

(TYPE 2)

PROJECT TANAMI

Prospect 21A

Traverse CNG

Date 16-8-89

Obs. V.S./R.E.

Inst/SN G816/1620

First Station N E

02 1 23

Last Station N E

03 1 23

Station Spacing Line Id

04 8 14

Stn. Ref.	Time	Reading	Co-ords	Com #
3 7 8	11 12	15 16		
05		51560	1690E	
05	1219	629	1700E	
05		760	10	
05		761	20	
05		519	30	
05		546	40	
05		494	50	
05		492	60	
05		551	70	
05		520	80	
05		843	90	
05		665	1800E	
05		499	10	
05		503	20	
05		507	30	
05		591	40	
05		347	50	
05		755	60	
05		620	70	
05		698	80	
05		531	90	
05		593	1900E	
05		666	10	
05		596	20	
05		588	30	
05		549	40	
05		613	50	
05		711	60	
05		659	70	
05		587	80	
05		767	90	
05		739	2000E	
05		672	10	
05		675	20	
05		641	30	

Stn. Ref.	Time	Reading	Co-ords	Com #
3 7 8	11 12	15 16		
05		51608	2040E	
05		592	50	
05		632	60	
05	1228	620	70	
05		618	80	
05		606	90	
05		681	2100E	
05		558	10	
05		610	20	
05		634	30	
05		601	40	
05		520	50	
05		585	60	
05		666	70	
05		663	80	
05		693	90	
05		618	2200E	
05		477	10	
05		518	20	
05		476	30	
05		558	40	
05		555	50	
05		594	60	
05		582	70	
05		512	80	
05		610	90	
05		511	2300E	
05		584	10	
05		588	20	
05		558	30	
05		561	40	
05		574	50	
05		593	60	
05		574	70	
05		557	80	



# MAGNETICS FIELD SHEET

Sheet No.

01 78

(TYPE 2)

PROJECT TANAMI

First Station

02 CN7 2400

Prospect 21A

Last Station

03 CN7 1000

Traverse CN7

Date 16-8-89

Station Spacing

04 10

Line Id

Obs. V.B./R.E.

Inst/SN G816/1620

Stn. Ref.	Time	Reading	Co-ords	Com #
05	3 11 20	51 733	—	
05	12 46	51 537	2400E	
05		554	90	
05		606	80	
05		616	70	
05		539	60	
05		592	50	
05		550	40	
05		482	30	
05		479	20	
05		568	10	
05		528	2300E	
05		502	90	
05		494	80	
05		485	70	
05		522	60	
05		561	50	
05		546	40	
05		532	30	
05		547	20	
05		558	10	
05		519	2200E	
05		502	90	
05		489	80	
05		461	70	
05		501	60	
05		568	50	
05		578	40	
05		502	30	
05		519	20	
05		553	10	
05		524	2100E	
05		538	90	
05		536	80	
05		502	70	

Stn. Ref.	Time	Reading	Co-ords	Com #
05		51 597	2060E	
05	12 54	561	50	
05		539	40	
05		540	30	
05		556	20	
05		544	10	
05		521	2000E	
05		537	90	
05		521	80	
05		486	70	
05		526	60	
05		567	50	
05		500	40	
05		526	30	
05		525	20	
05		557	10	
05		559	1900E	
05		555	90	
05		542	80	
05		549	70	
05		550	60	
05		580	50	
05		599	40	
05		537	30	
05		525	20	
05		549	10	
05		546	1800	
05		523	90	
05		526	80	
05		508	70	
05		510	60	
05		509	50	
05		511	40	
05		518	30	
05		518	20	

# MAGNETICS FIELD SHEET

Sheet No.

01 79

(TYPE 2)

PROJECT TANAMI

Prospect 21A

Traverse CN7

Date 16-8-89

Obs. V.B./R.E

Inst/SN G816/1620

First Station N E  
 02 12 13 14 23

Last Station N E  
 03 12 13 14 23

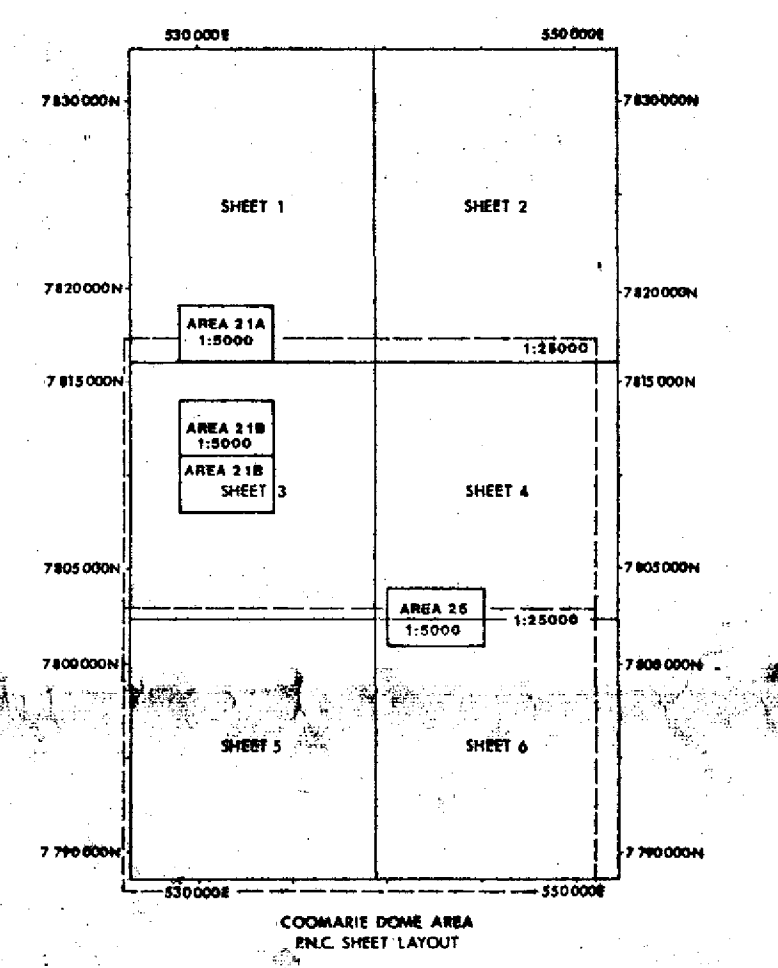
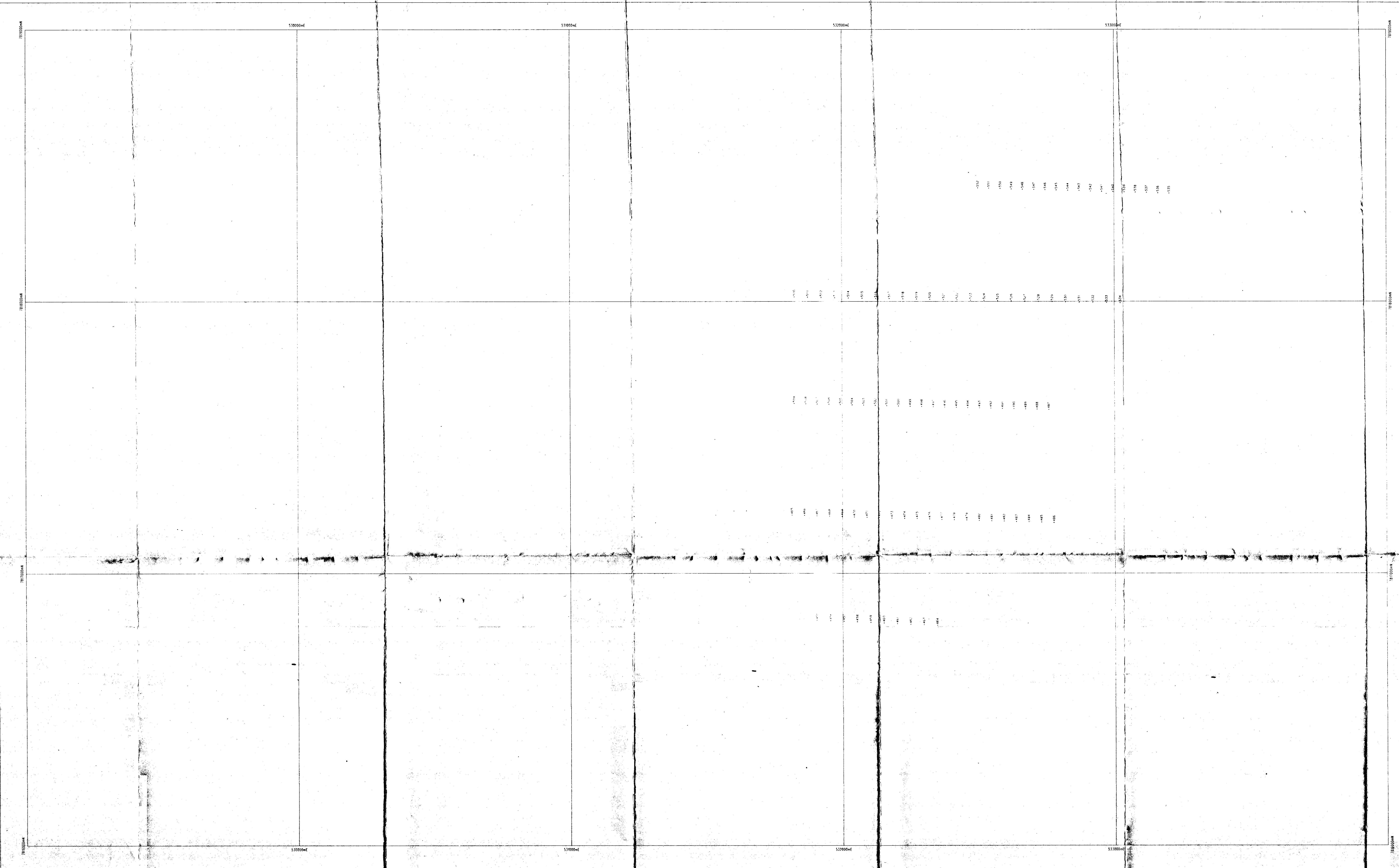
Station Spacing Line Id  
 04 8 14

Stn. Ref.	Time	Reading	Co-ords	Com #
3 7 8	11	12 16	16	
05		51516	1710E	
05	1302	527	1700E	
05		544	90	
05		534	80	
05		520	70	
05		523	60	
05		526	50	
05		535	40	
05		537	30	
05		536	20	
05		537	10	
05		541	1600E	
05		542	90	
05		549	80	
05		540	70	
05		544	60	
05		569	50	
05		594	60	
05		608	30	
05		561	20	
05		573	10	
05		560	1500E	
05		544	90	
05		556	80	
05		559	70	
05		565	60	
05		569	50	
05		571	40	
05		571	30	
05		576	20	
05		560	10	
05		562	1400E	
05		554	90	
05		542	80	
05		521	70	

Stn. Ref.	Time	Reading	Co-ords	Com #
3 7 8	11	12 16	16	
05		51525	1360E	
05		544	50	
05		469	40	
05		486	30	
05		491	20	
05		493	10	
05		493	1300E	
05		487	90	
05		492	80	
05		487	70	
05		486	60	
05		488	50	
05		484	40	
05		481	30	
05		485	20	
05		468	10	
05		465	1200E	
05		471	90	
05		474	80	
05		476	70	
05		466	60	
05		477	50	
05		481	40	
05		475	30	
05		484	20	
05		474	10	
05		481	1100E	
05		458	90	
05		467	80	
05		462	70	
05		457	60	
05		460	50	
05		477	40	
05		501	30	
05		476	20	



FULL DESCRIPTOR DETAILS  
 SAMPLE NUMBER  
 SAMPLE NUMBER STRINGS  
 0051745500517552+1



REVISIONS			
Revised By	Date	Revised By	Date

WESTERN MINING CORPORATION LIMITED  
 EXPLORATION DIVISION  
**SAMPLE LOCATIONS  
 LAGS / SOILS  
 AREA 21A - E.L. 4827  
 P.N.C. SHEET 1  
 TANAMI PROJECT - N.T.**  
 DATE: 5-DEC-89    AUTHOR: LCHENWETH    PLAN NO.  
 SCALE: 1:5000    MAP REF.    7048-62

WORKING SHEET ONLY