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METANA MINERALS N.L.

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EXPLORATION LICENCE 6158

"MT CLELAND"

SUMMARY REPORT ON EXPLORATION
FOR THE PERIOD 28th SEPTEMBER 1988

TO
1st MARCH 1989

Geological 1:250,000 Tennant Creek Sheet

Compiled by
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6/3/89

CR89/694

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1. SUMMARY

Work to date on this Exploration Licence includes an aeromagnetic interpretation and stream sediment sampling as part of a regional programme. The results suggest that the Licence is underlain by the Carraman Formation and a granitic body in the north eastern portion. The stream sediments show weakly enhanced bismuth values.

2. RECOMMENDATIONS

Ongoing exploration should include a photogeological interpretation, geological mapping, follow up of the stream sediment samples with high gold and bismuth values and reconnaissance bedrock drilling over selected areas based on structural interpretation to determine the bedrock lithologies. The north eastern part of the Licence probably underlain by granitic rocks could be relinquished and work concentrated on the structural zones in the south western area.

4. LOCATION AND ACCESS

The Exploration Licence is located about 11 kilometres east of the Tennant Creek township and covers a total area of about 81.7 square kilometres. (Fig 1.)

5. TENURE

Exploration Licence 6158 (Mt Cleland) is held by wholly Metana Minerals N.L. The Exploration Licence was granted on the 28th September 1988, and has a minimum Mines Department expenditure of \$56,000.00.

7. REGIONAL GEOLOGY

The regional geology will not be repeated here as it has been adequately described in numerous previous publications. For example the Geological Survey, 1:250,000 series Tennant Creek Sheet explanatory notes. Figure 2 shows a regional geology map taken from Le Messurier et al, "The Tennant Creek Inlier : Regional Geology and Mineralisation": in Economic Geology of Australia and Papua New Guinea - Metals. In Press.

8. AEROMAGNETIC INTERPRETATION

A geophysical interpretation was made on the data that was purchased by Metana from Austirex International Limited. An airborne geophysical survey was conducted by Austirex between June & July 1984. The flight lines were spaced by 200 metres, with tie lines separated by 4000 metres. A proton precession magnetometer was used for data collection. This had a resolution of 0.1 nano Tesla, a cycle rate of 0.5 seconds and a sample interval of 30 metres.

The interpretation suggests that the Exploration Licence is underlain by the Carraman Formation in the south western portion and probably a granitic rock type in the north eastern part. A number of WNW-ESE magnetic units within the Carraman are affected by a series of NW-SE trending faults of indeterminate displacement.

2. STREAM SEDIMENT SAMPLING

A regional stream sediment sampling programme was carried out over the entire Tennant Creek field. Twenty two of the samples were collected from within Exploration Licence 6158. A 3 kg sample of -2 mm fraction was collected at each sample site and analysed for gold by the Bulk Leach Extractable Gold (BLEG) method. A 500 g split of -180 microns was taken from each sample and analysed for copper and bismuth. The results are shown on Figure 4.

Only one sample reported a gold assay 1.7 above the regional average, there were no anomalous copper values. However 7 of the samples returned assays greater than 1 ppm bismuth which is weakly anomalous. These stream sediments should be resampled and a follow up sampling programme carried out.

A.H. Eeles
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6.3.89

M E T A N A M I N E R A L S N L

EXPENDITURE FOR PERIOD TO 30 JUNE 1989

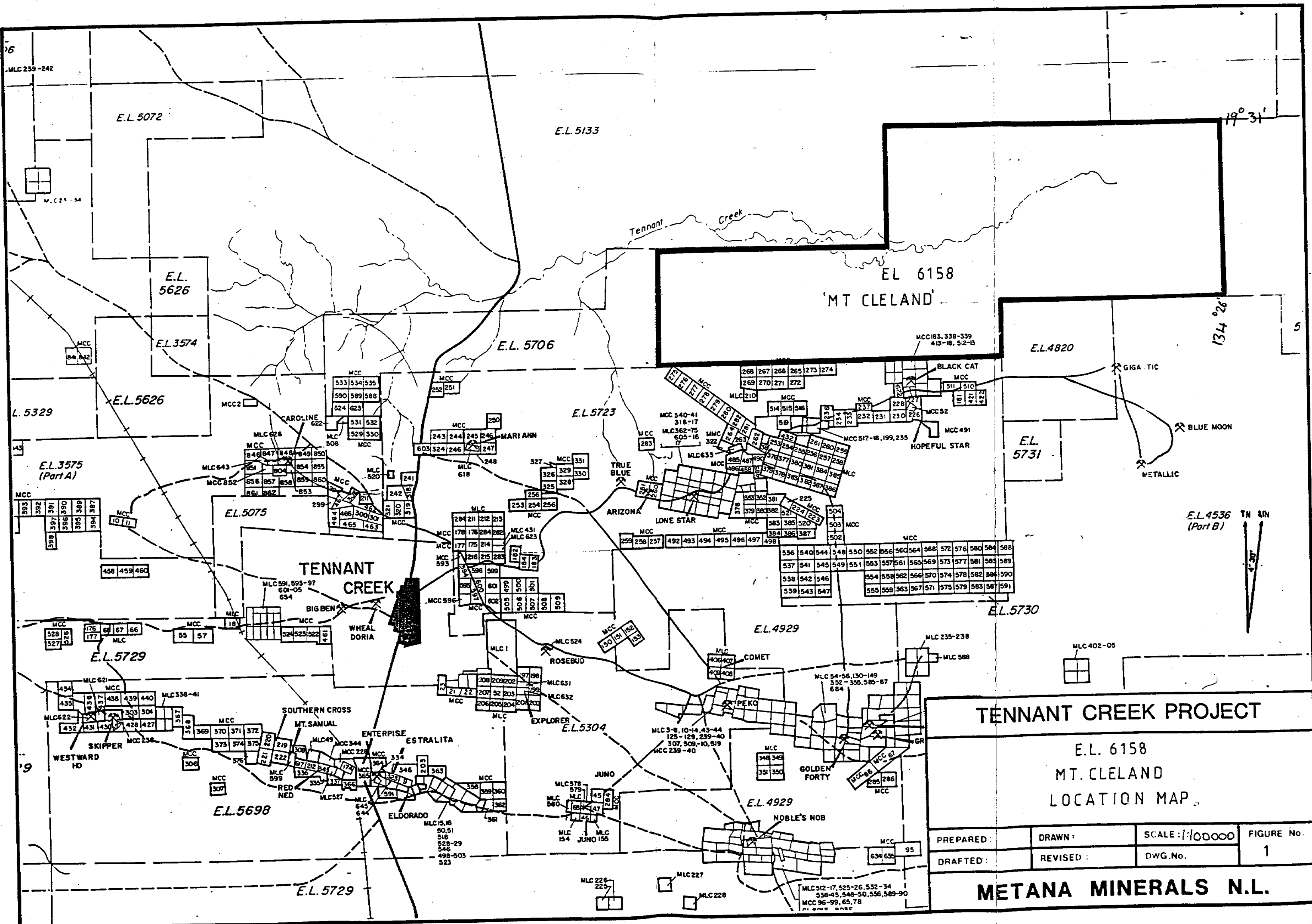
MT CLELAND 100% METANA

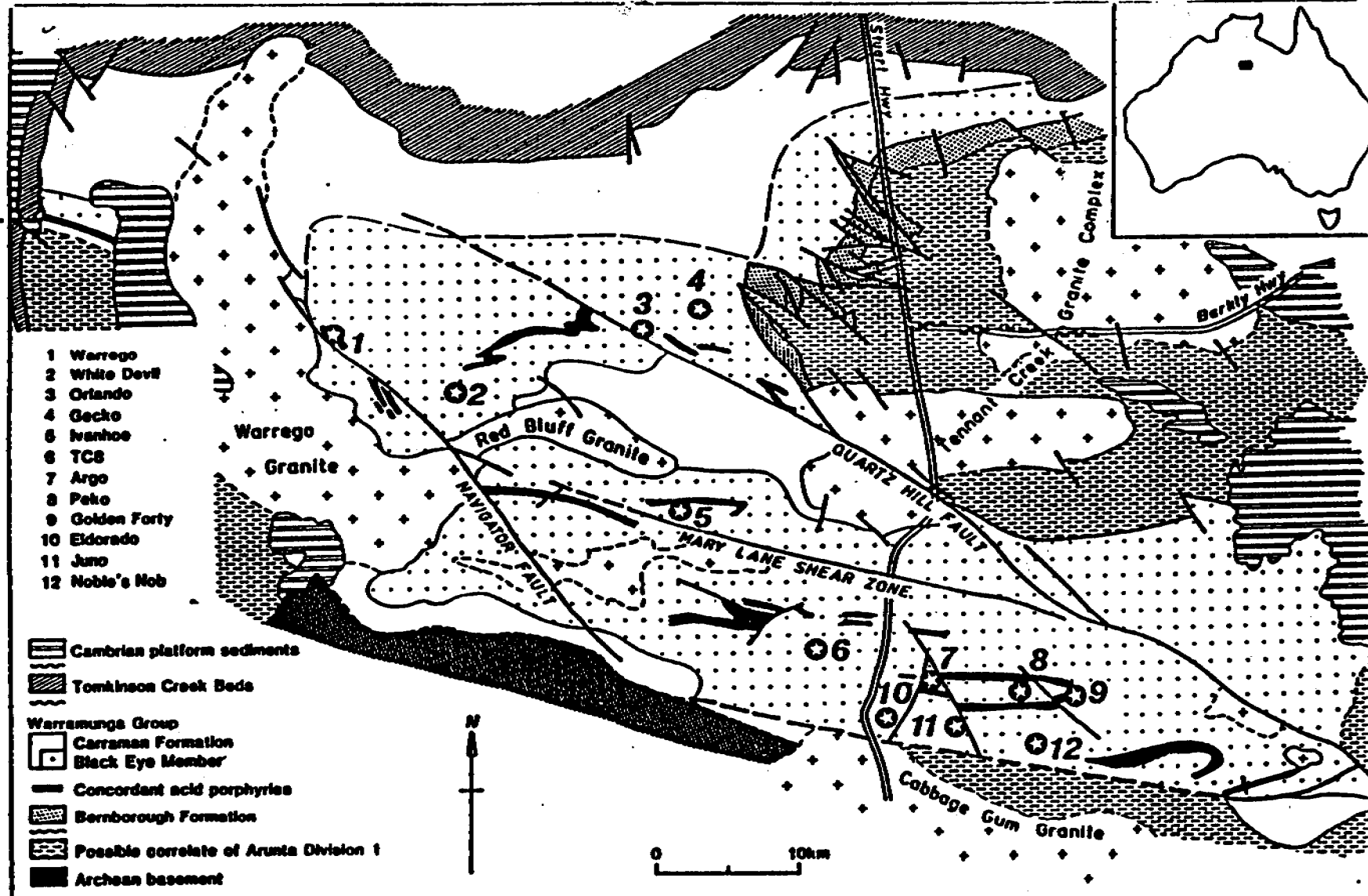
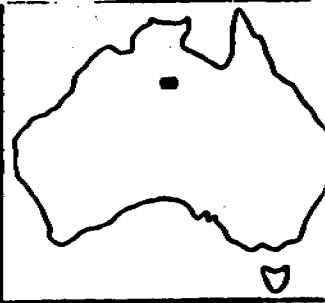
Expenditure
1988/89

Advertising	
Legal Fees and Stamp Duty	
Pegging Costs	
Tenement Fees, Rents and Rates	140.00
Vendor Payments	
Head Office costs	
Insurance	
Labour Staff Management	
Maps, Plans, Searches and books	1230.38
Telephone	
Hire	4130.00
Operating Costs	27.17
Repairs and Maintenance	
Accommodation, Hotels and Meals	
Freight and Cartage	
Stores and Consumables	
Travelling Expenses	
Aerial Photography	603.46
Drilling Bedrock (Geochem)	
Drilling Non-Core (Percussion)	
Drilling Core (Diamond)	
Drafting and Computing	
Field Materials	
Geological Services Field	
Geological Services Office	2126.22
Geophysical Survey and Interpretation	11763.56
Gridding	
Labour Operating	345.00
Petrology and Mineragraphy	
Report Preparation	
Sample Analysis and Preparation	2989.90

	23355.69
Plus Administration Charge	3503.35

	26859.04
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TENNANT CREEK

REGIONAL GEOLOGICAL MAP

From LeMessurier et al.—ECONOMIC GEOLOGY OF AUSTRALIA and PAPUA NEW GUINEA METAL. IN PRESS

PREPARED:	DRAWN:	SCALE:	FIGURE NO.
DRAFTED:	REVISED:	DWG. NO.	2

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