

CENTRAL DESERT JOINT VENTURE

2nd ANNUAL REPORT
for
EXPLORATION LICENCES
EL 8283 EL 8284 EL 8931 EL 9249

FRANKENIA AGREEMENT

October 1999

OPEN FILE

COMPILED BY

**DEPARTMENT OF
MINES & ENERGY**

TITLE: 2ND ANNUAL REPORT FOR EXPLORATION LICENCES
EL 8283, EL 8284, EL 8931, EL 9249

PERIOD: 13 OCTOBER 1998 TO 12 OCTOBER 1999

COMPILED BY: HELEN BURGESS

LOCATION: TANAMI 1:250,000 SE 52-15
GRANITES 1:250,000 SF 52-03

COMMODITY: GOLD

DATE: OCTOBER 1999

KEYWORDS: ANTRIM PLATEAU VOLCANICS, CAINOZOIC, CALCRETE,
FRANKENIA DEED, GRANITES-TANAMI PROVINCE,
LATERITE, SILCRETE, TANAMI DESERT

SUMMARY

Exploration Licences (EL) 8283, 8284, 8931 and 9249 were granted to the Central Desert Joint Venture partners (Otter Gold NL 60% and Acacia Resources Ltd 40%) on October 13th 1997. The four exploration licences are subject to a Deed (**Frankenia Deed**) between the CDJV and the Traditional Owners executed 01/08/97.

The Frankenia tenement group comprises a large area of the Granites-Tanami Province where there has been minimal previous exploration. The tenements are viewed as a single project and exploration efforts have primarily focussed upon generating targets. To date work programmes have primarily constituted data compilation, airborne surveying and regional soil sampling.

Utilising a Robinson 2-seater helicopter and a Kawasaki Motorbike a regional geochemical survey was conducted earlier this year. The sampling program employed low level gold detection analysis (ZARG) and comprised the bulk of exploration efforts during this second licence year. A total of **1297** Soil Samples were collected.

Exploration expenditure on all 4 licences subject to the Frankenia Deed for the period 13th October 1998 to 12th October 1999 was over \$95,000.

Only low impact exploration was undertaken during the licence year.

All of the area covered by the subject ELs remains under CDJV title and therefore details covered in this report should remain on **CLOSED FILE**.

TABLE OF CONTENTS

1.0 INTRODUCTION	1
1.1 LOCATION AND ACCESS.....	1
1.2 TENEMENT STATUS.....	1
1.3 EXPLORATION HISTORY.....	1
1.4 CENTRAL LAND COUNCIL.....	3
2.0 GEOLOGY.....	3
2.1 REGIONAL GEOLOGY	3
2.2 LOCAL GEOLOGY.....	5
3.0 EXPLORATION.....	6
3.1 EL 8283.....	6
3.2 EL 8284.....	6
3.3 EL 8931.....	6
4.0 EXPENDITURE ON ELS 13/10/98 TO 12/10/99	8
5.0 PROPOSED WORK PROGRAMME	13
5.1 PROPOSED WORK PROGRAMME.....	13
5.2 PROPOSED EXPENDITURE.....	13
6.0 REFERENCES.....	14

LIST OF FIGURES

- | | |
|-----------------|---|
| Figure 1 | Location Map |
| Figure 2 | Revised Divisions within the Tanami Complex |
| Figure 3 | Regional Surface Sampling Sites |
| Figure 4 | Regional Surface Geochemistry |
| Figure 5 | EL 8283 Soil Sampling |
| Figure 6 | EL 8284 Soil Sampling |
| Figure 7 | EL 8931 Soil Sampling |
| Figure 8 | EL 9249 Soil Sampling |

LIST OF APPENDICES

- | | |
|-------------------|-------------------------------|
| Appendix 1 | EL 8283 Surface Sampling Data |
| Appendix 2 | EL 8284 Surface Sampling Data |
| Appendix 3 | EL 8931 Surface Sampling Data |
| Appendix 4 | EL 9249 Surface Sampling Data |
| Appendix 5 | Environmental Register |

1.0 INTRODUCTION

As required by the Department of Mines and Energy (DME), this report contains details of exploration activities conducted within EL8283, EL8284, EL 8931 and EL9249 for the period 13th October 1998 to 12th October 1999. The four exploration licences are covered by a Deed between Otter Gold NL and the Traditional Owners, dated 1st August 1997. The tenements are viewed as a single project and were granted this status by the DME on the 13th October 1997. The Frankenia Agreement comprises tenements within the Central Desert Joint Venture (CDJV) between Otter Gold NL (60% and managers) and Acacia Resources (40%).

1.1 Location and Access

The CDJV tenements are located approximately 650km northwest of Alice Springs, and 300km southeast of Halls Creek. The Frankenia Agreement comprises four contiguous Exploration Licences covering a large area (569 km²) of the Granites-Tanami Province due east of the Tanami mine site (Figure 1).

Access to the tenements is by the Tanami Track, and the Lajamanu Road. Within the CDJV, access is via exploration tracks and gridded baselines. Access to most areas is limited during the wet season (December to March).

1.2 Tenement Status

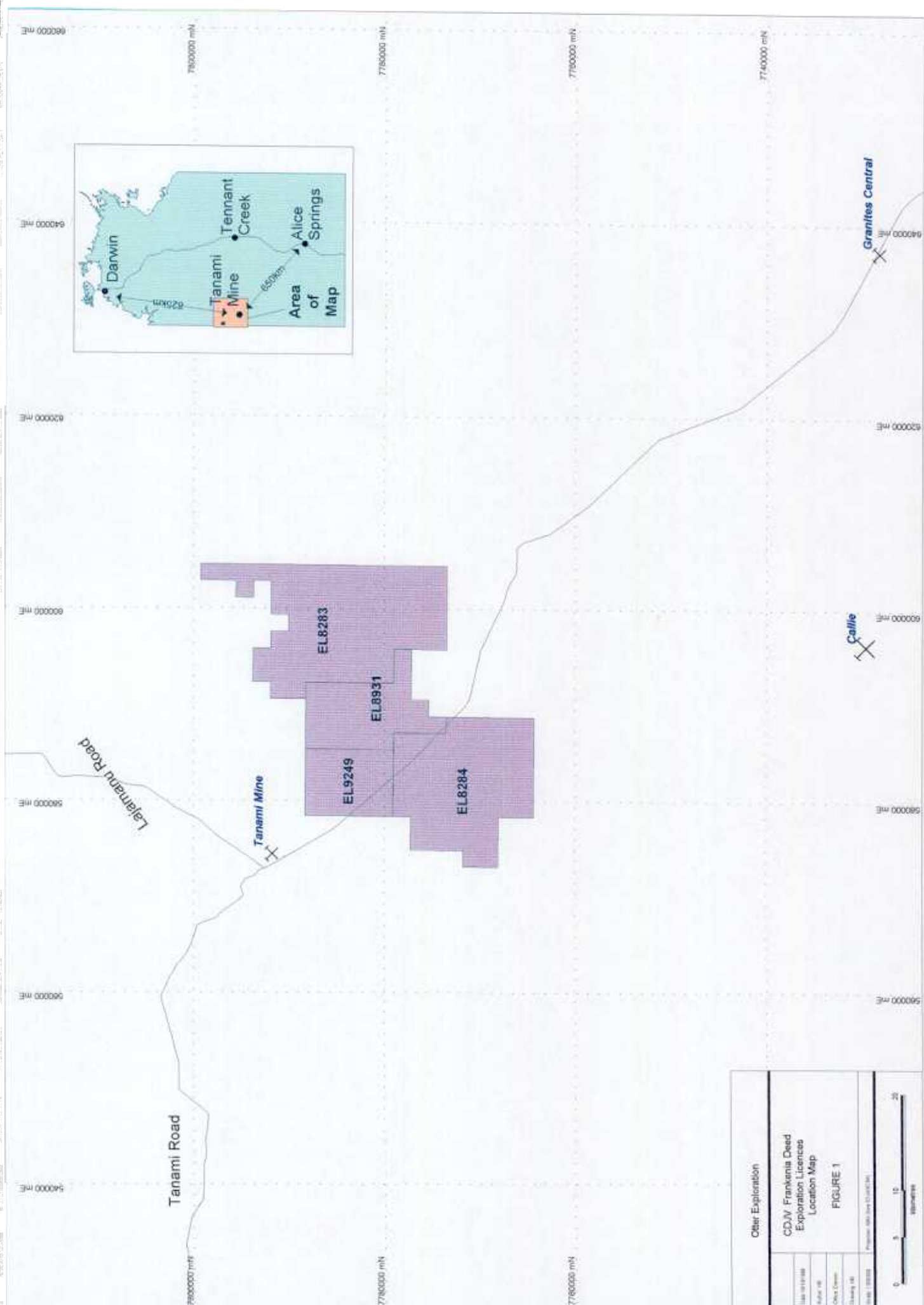
Permission to explore within the Frankenia tenements EL 8283, EL 8284, EL 8931 and EL 9249 was granted to Otter Gold NL on the 13th October 1997 for a period of six years. This report represents the **second** year of exploration.

1.3 Exploration History

Previous exploration of this region has been minimal. Initial investigation of the Tanami area was conducted by Davidson (1905). Davidson discovered gold-bearing quartz reefs. The reefs were mined between 1902 and 1908. Mining was restricted to the wet season due to lack of permanent water.

A gold rush was precipitated by the discovery of slab of stone containing an estimated 180oz of gold in 1909. The rush continued until 1913 and up to 200 men were working the field. Intermittent exploration and mining was conducted between 1913 and 1938, including the construction of an amalgamation plant in 1927. No official exploration was conducted in the Tanami Desert between 1938 and 1965.

In 1985, Harlock Pty. Ltd. commenced exploration within the Tanami mining leases which led to the commencement of open pit mining in mid-1987. Zapopan NL. acquired the ground and continued mining until March 1994. Otter Gold Mines Pty. Ltd. was granted access to explore around the mine site in 1989. Low-level Au anomalism was discovered in late 1989 which led to the identification of the Redback Rise area as highly prospective. The Otter screening process also identified the Dogbolter and Jim's Find prospects.



Other Exploration	
CDM Frankenta Deed	
Exploration Licences	
Location Map	
FIGURE 1	
Scale: 1:25000	Figure 1: Location Map
Author: CDM	
Other: CDM	
Drawing: CDM	

In September 1990, the Shell Company of Australia Ltd. (Shell) entered into a joint venture with Otter. Management of the project was entrusted to Shell. In August 1993, Shell completed its earning phase (50%) by spending \$5 million on exploration. In October 1994, a new joint venture was formed between Otter Gold NL and Acacia Resources Ltd. as a result of Shell divesting its mineral assets. The new joint venture is known as the Central Desert Joint Venture (CDJV), with participating interests 60% Otter and 40% Acacia. Otter Gold NL has management of the project.

1.4 Central Land Council

In accordance with the Mining Act and the Aboriginal Land Rights (N.T.) Act 1976 (ALRA), Otter Gold NL negotiated an agreement with the relevant traditional owners via the CLC. This agreement is a "conjunctive" agreement, a copy of which is held by the DME.

2.0 GEOLOGY

2.1 Regional Geology

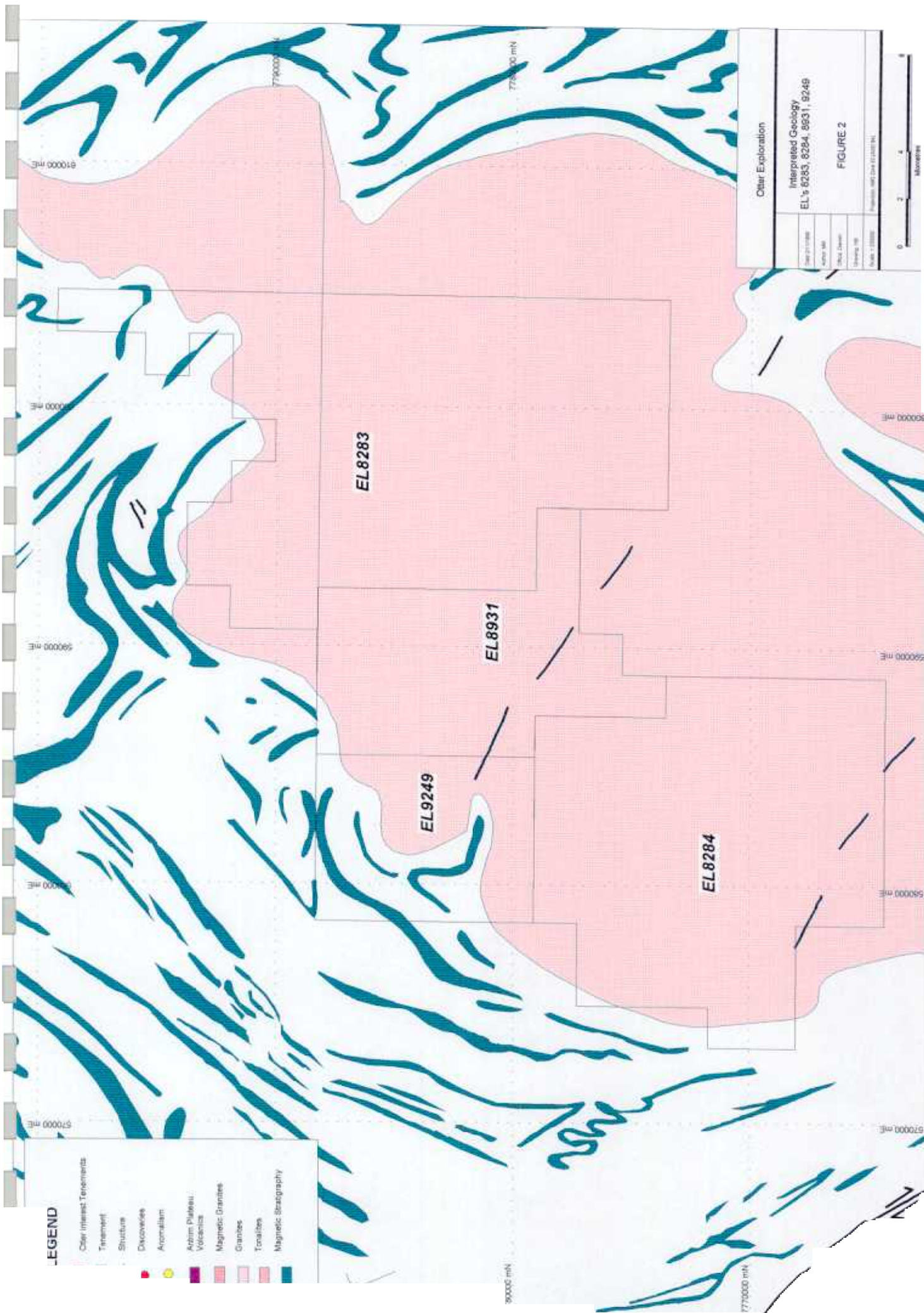
The Granites-Tanami Block is bounded to the west by the Canning Basin and to the east by the Wiso Basin. It is considered to be one of the western-most Palaeoproterozoic inliers of the North Australian Orogenic Province, developed during the Barramundi Orogeny (Blake et al., 1979).

Hodgson (1975) and Blake et al. (1975) divide the Lower Proterozoic Tanami Complex sequence into five informal units:

- 1) the Killi Killi Beds;
- 2) the Mount Charles Beds;
- 3) the Nanny Goat Creek Beds;
- 4) the Helena Creek Beds;
- 5) the Nongra Creek Beds.

No stratigraphic distinctions are made between these units, as they are inferred to be lateral equivalents of one another. Blake et al. (1979) stated that the Mt. Charles Beds were the only unit to host Au mineralisation. Since then, numerous Au deposits have been identified in units other than the Mt. Charles Beds.

Tunks (1996) re-evaluated geological data to further subdivide the Tanami Complex into two domains. Domain 1 (Ditjidoonkuna Suite) includes the Killi Killi and Davidson Beds which have been metamorphosed to amphibolite facies. Domain 2 (Black Peak Formation) comprises the Nanny Goat Creek, Helena Creek, Nongra and Mt. Charles Beds which are all low-grade metamorphic rocks.



LEGEND

- Old Interest Territories
- Tectonics
- Structure
- Dikes/Veins
- Anomalous
- Active Plateau
- Volcanics
- Magnetic Granites
- Granites
- Tonalites
- Magnetic Stratigraphy

Ottar Exploration

Interpreted Geology
EL's 8283, 8284, 8931, 9249

FIGURE 2

Scale: 1:50000



Unconformably overlying the Black Peak Formation is the Birrindudu Group consisting of the Pargee Sandstone, Supplejack Downs Sandstone, Gardiner Sandstone and the Mt. Winneckie Formation. Although none of these units are known to host Au mineralisation, the Pargee Sandstone has been observed to host considerable quartz veining, and the Au-bearing structures in the Tanami Mine Corridor have been observed in the overlying Gardiner Sandstone.

The Proterozoic Browns Range and Coomarie Granites are observed to intrude the Killi Killi and Mt. Charles Beds, and are overlain by the Gardiner Sandstone. These relationships would suggest that the granites were Lower Proterozoic in age (Hodgson, 1975). Overlying the Gardiner Sandstone are the Carpentarian Talbot Well Formation and the Coomarie Sandstone. The contact between the Talbot Well Formation and the Coomarie Sandstone is inferred to be conformable.

The Cambrian Antrim Plateau Volcanics consist of intensely weathered basalt capped by pisolitic laterite. The basalts are mainly sub-aerial, extrusive basalts, although the occurrence of pillow structures south of Browns Range Dome suggests that some basaltic extrusion occurred in sub-marine conditions. Unnamed Cambrian sediments are also observed in the Tanami region. These include chert, and carbonates which are more prevalent in Western Australia.

Cainozoic laterite, silcrete, calcrete, and Quaternary debris cover 60 – 70% of the Tanami Desert. The Quaternary sediments are generally unconsolidated, representing the most recent phase of erosion and deposition of sands, gravels and lithic fragments.

2.2 Local Geology

Otter has taken a focussed approach to the geology within the CDJV, where “type examples” from the mine sequence have been used to define the local geology. This has resulted in the differentiation of units (Flores Complex, Wild Turkey Sandstone, etc) which previously had been loosely associated with the Mt. Charles Beds. It has also enabled a lithological and structural interpretation untainted by previous interpretation or regional models.

All four exploration licences are essentially underlain by granite (Figure 2). At the surface Cainozoic laterites, sands and silt with minor Antrim Plateau Volcanics predominate.

3.0 EXPLORATION

Surface Sampling

The application of low level surface sampling to generate tight anomalies that reflect primary mineralisation directly underneath is an obvious bonus in difficult exploration terrains. The ZARG (Zeeman Aqua Regia Gold) technique detects gold to a 0.1ppb detection limit in drainage and regolith samples. Otter has focussed much of its efforts into utilising this unique analytical method to implement a relatively cheap and effective first pass exploration strategy. The importance of understanding the regolith in these areas is essential to ensure that the 'correct' level of anomalism is identified in each domain.

Fieldwork commenced in mid-January in the hope that a significant proportion of the sampling program might be completed before the field season proper commenced (mid-March). However, the general lack of access to regional areas and continuing wet weather prompted the adoption of a helicopter sampling strategy for the regional areas.

Sample spacing selected for the program (Figures 3), was 400m x 400m, which is considered, appropriate for typical Tanami mineralisation. Sample spacing is increased to 800m x 800m over areas of granite where prospectivity is likely to be less.

1297 soil samples for ZARG analysis were collected between January and July. Figure 4 illustrates encouraging results from the recent geochemical surface sampling programme. First pass geochemical results appear encouraging so far. Gold values are low (0.1 to 0.7 ppb) but anomalies are relatively coherent.

3.1 EL 8283

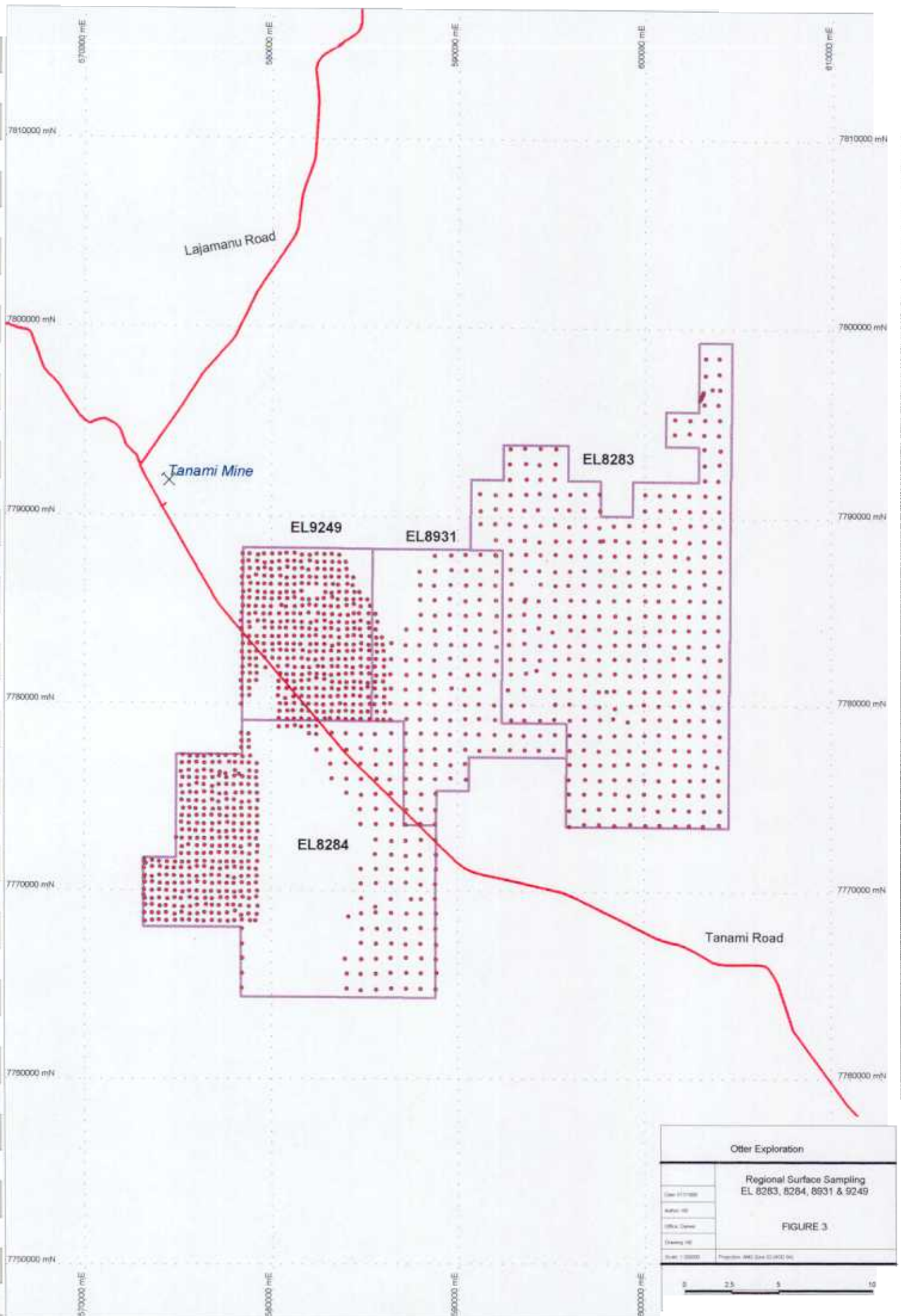
During February 1999, 357 surface samples were taken from EL 8283 (Figure 5) as part of the regional surface geochemical programme. The samples were primarily described as sandy loam with areas of pisolites. The maximum gold assay values were 0.3 ppb and 0.2 ppb with an average value of 0.05 ppb.

3.2 EL 8284

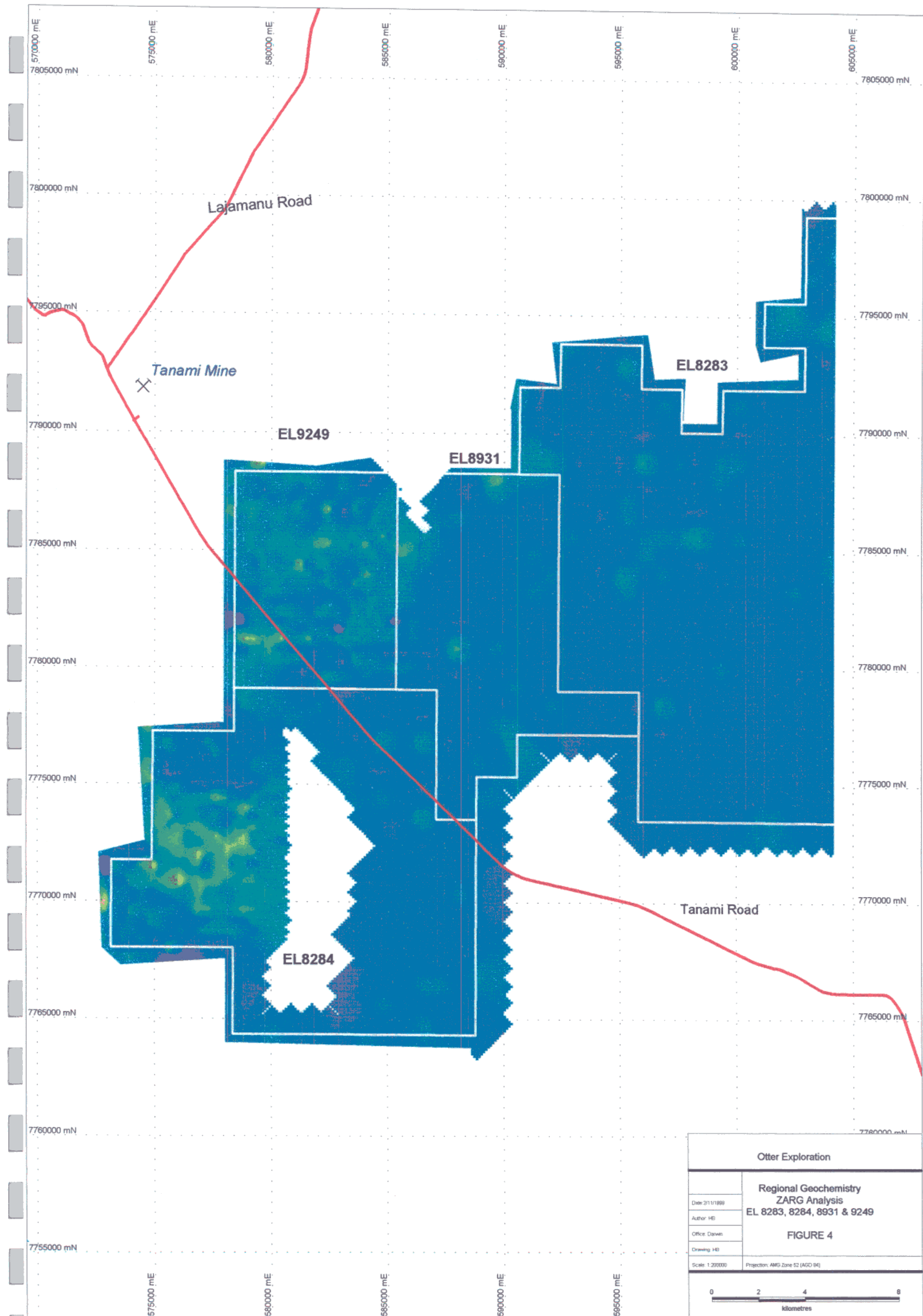
Surface samples retrieved from EL 8284 (Figure 6) were described as sandy loam and gravels with sporadic zones of clay pan material. 416 soil samples were assayed with single peak values of 1.3, 0.9 and 0.8 ppb. The bulk of the results ranged from 0.05 to 0.1 ppb but values of 0.2 to 0.5 ppb were common.

3.3 EL 8931

A total of 153 surface samples were taken from EL 8931 during February (Figure 7). The samples were primarily described as sandy loam with areas of pisolites. Results commonly ranged from 0.05 to 0.1ppb but a few values reached 0.4 and 0.5 ppb.



Ottor Exploration	
Regional Surface Sampling EL 8283, 8284, 8931 & 9249	
FIGURE 3	
Scale 1:25000	Projection: MGR Zone 52 (MGR 52)
0 2.5 5 10	



3.4 EL 9249

371 soil sites were sampled from EL 9249 (Figure 8). The samples were commonly described as sandy loam and gravels. Assay results were similar to the other ELs namely, 0.05 – 0.1ppb predominantly with several values at 0.4 and 0.5 ppb. A peak value of 0.7 ppb from two locations and near by values of 0.6 ppb are encouraging.

4.0 EXPENDITURE ON ELS 13/10/98 TO 12/10/99

Table 1 summarises the work programme for the second licence year and the associated costs.

Table 1 Expenditure Summary for Exploration Licences

	EL 8283	EL 8284	EL 8931	EL 9249
Geology	3327	4048	3479	3342
Geophysics	402	480	440	402
Geochemistry	6525	6354	3060	4905
Surveying	6775	9984	4420	7131
Drilling	--	--	--	--
Assays	3012	3503	1175	3701
Field Costs	1585	3418	1605	717
Administration	2517	4089	2307	2543
Covenant	65,000	55,000	25,000	45,000
TOTAL	\$ 24,143	\$31,876	\$16,486	\$ 22,741

590000 mE

595000 mE

600000 mE

605000 mE

7795000 mN

7790000 mN

7785000 mN

7780000 mN

7775000 mN

7770000 mN

7795000 mN

7790000 mN

7785000 mN

7780000 mN

7775000 mN

EL8283

EL8283

EL9249

EL8931

EL8284

Otter Exploration

Surface Sampling
EL 8283

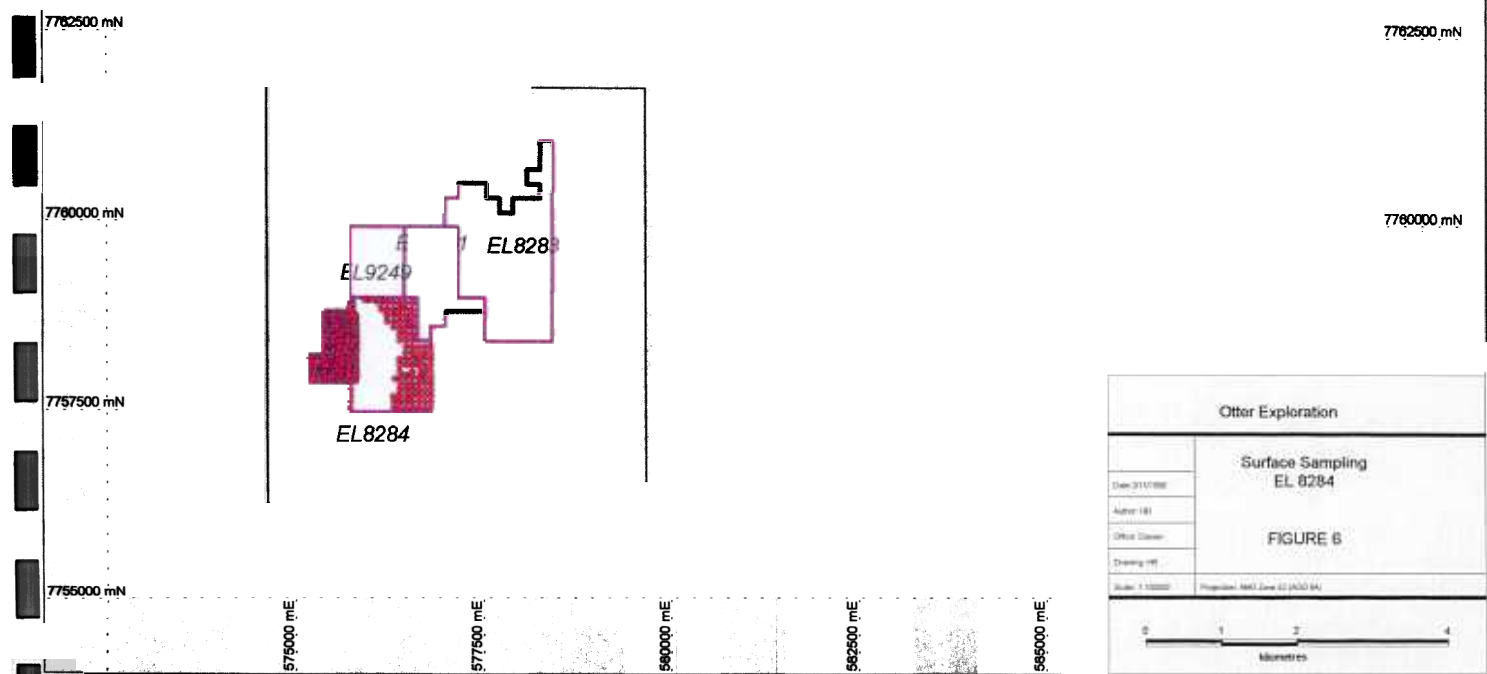
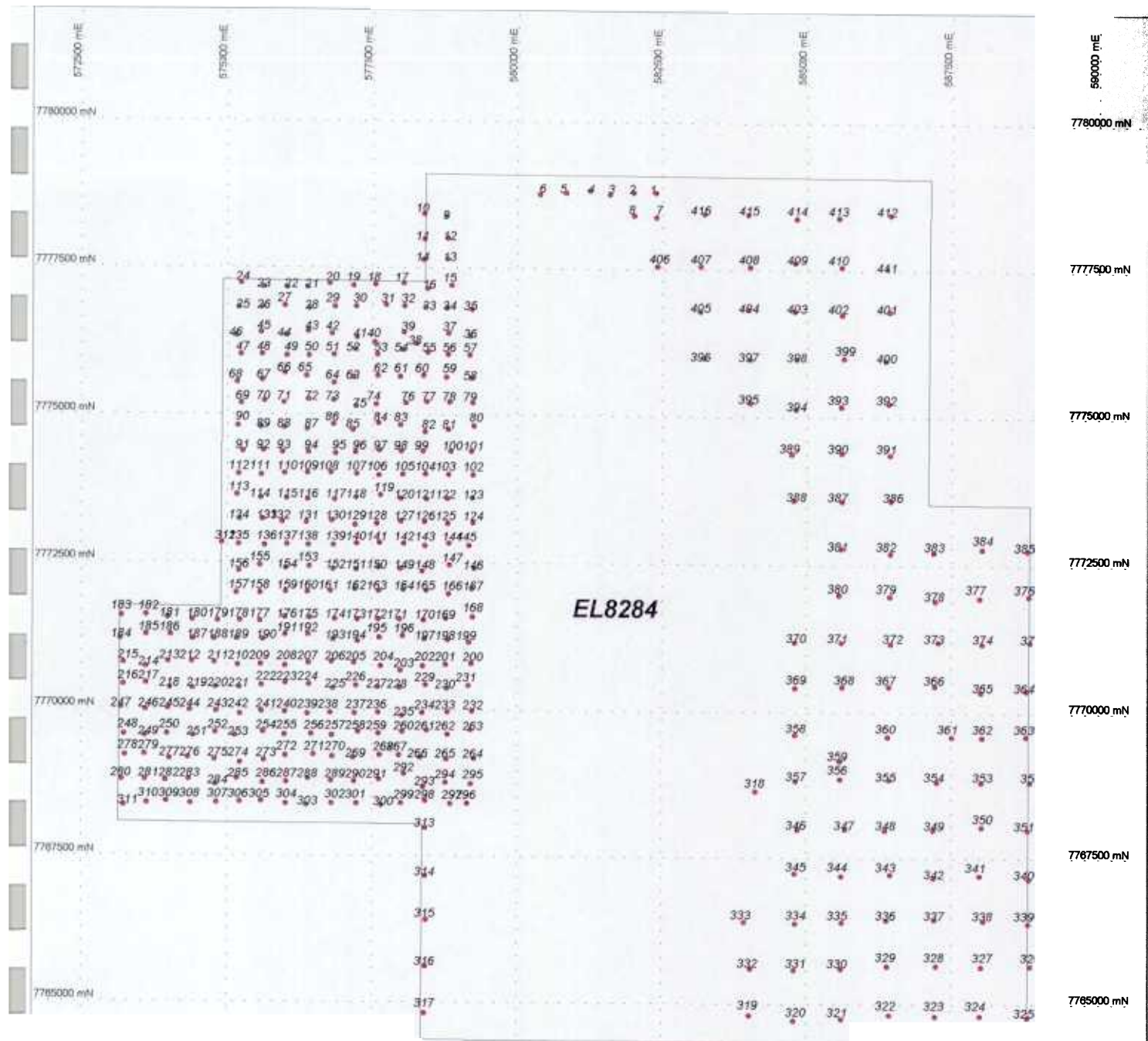
Author: HB

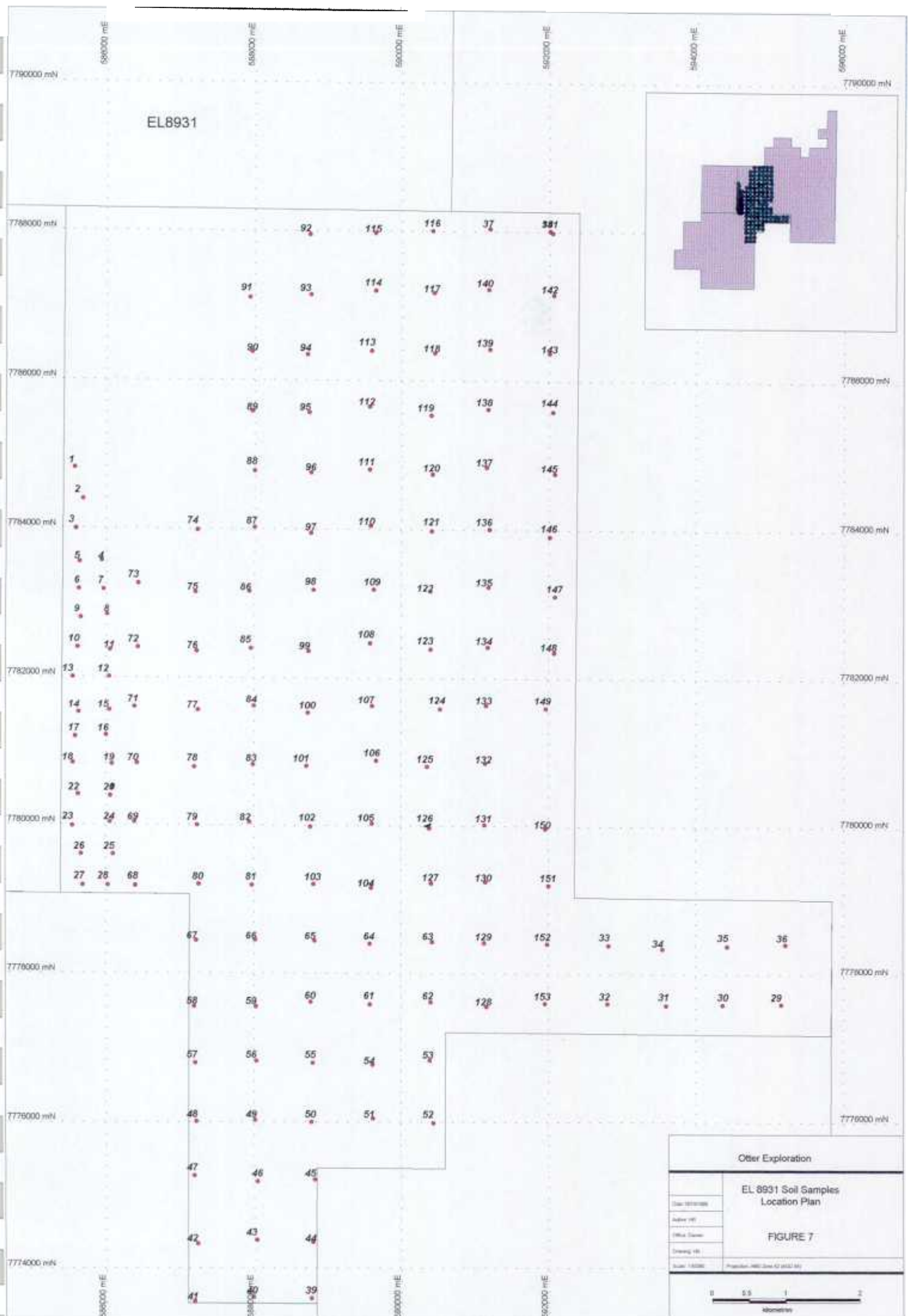
FIGURE 5

Projection: NAD Zone 12 (NAD 84)

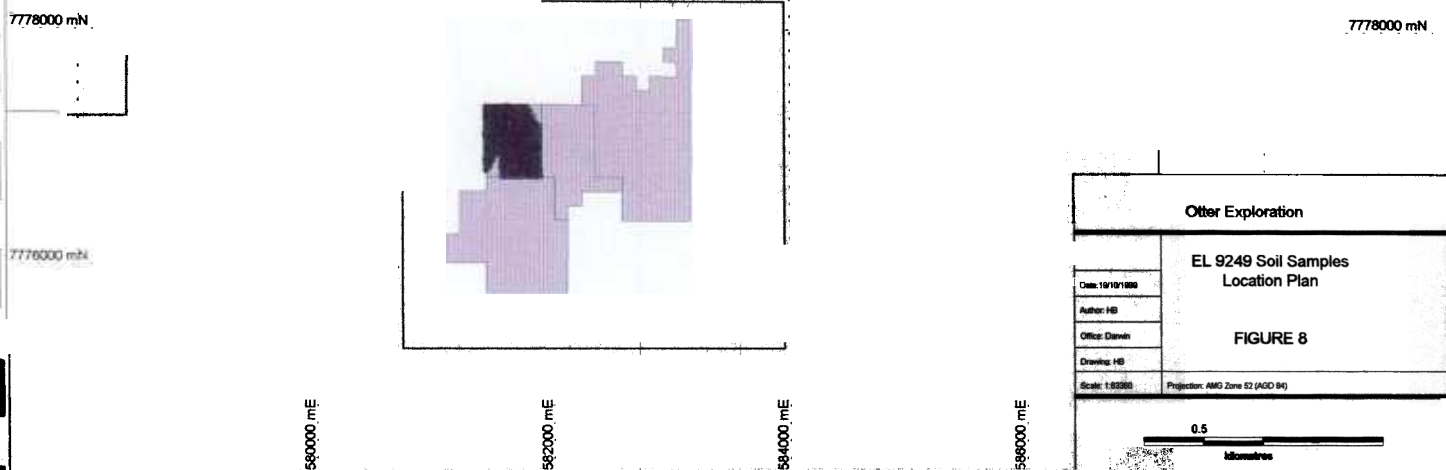
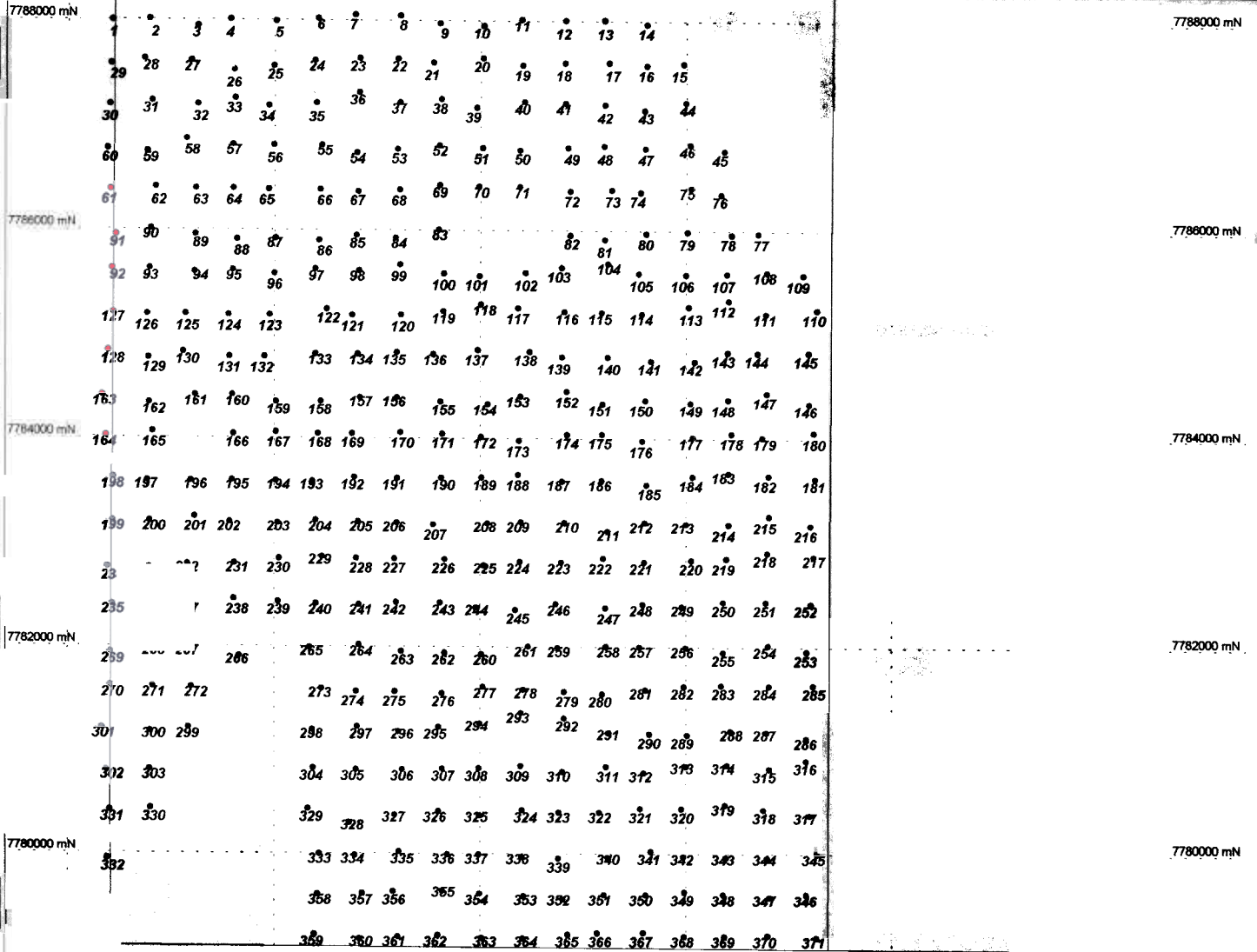
1.25 2.5

Metres





EL9249



Ottar Exploration	
EL 9249 Soil Samples Location Plan	
FIGURE 8	
Date: 19/10/1999	Author: HB
Office: Darwin	Drawing: HB
Scale: 1:50000	Projection: AMG Zone 52 (AGD 84)

5.0 PROPOSED WORK PROGRAMME

5.1 Proposed Work Programme

Exploration efforts have been, and remain, largely focussed on advanced project areas to deliver a resource inventory sufficient to maintain economic mining operations. Consequently, the exploration efforts remain in the “*grass- roots*” phase.

The forecast work programme will involve infill soil sampling to generate anomalies for angled RAB drilling.

5.2 Proposed Expenditure

The proposed programme and expenditure commitment is summarised in Table 2.

TABLE 2 Proposed Expenditure 1999-2000

	EL 8283	EL 8284	EL 8931	EL 9249
Geology	1900	3100	1900	2600
Geophysics	300	300	300	300
Geochemistry	3400	6300	3400	5200
Surveying	2700	4700	2700	3900
Drilling	1400	1600	1400	1300
Assays	2700	4700	2400	3600
Field Costs	1400	2000	1200	1600
Administration	1500	2300	1300	2000
TOTAL	\$15,300	\$ 25,000	\$ 14,600	\$ 20,500

6.0 REFERENCES

- Blake, D.H., Hodgson, I.M., and., Smith, P.A., 1975, *Geology of the Birrindudu and Tanami* 1:250 000 Sheet Areas, Northern Territory: Bureau of Mineral Resources, Australia, Vol.Report 174.**
- Blake, D.H., Hodgson, I.M., and Muhling, P.C., 1979, *Geology of the Granites-Tanami Region*, Bur. Min. Res. Geol. Aust. Bull., No. 197.**
- Davidson, A. A., 1905, Journal of explorations in Central Australia by the central Australian Exploration Syndicate, Limited, Adelaide.**
- Hodgson, C. J., 1975, Tanami, Northern Territory, 1:250,000 Geological Series: Explanatory Notes.**
- Tunks, A. J., 1996, *Geology of the Tanami Gold Mine, Northern Territory*, PhD Thesis (Unpublished), University of Tasmania, Hobart.**

APPENDIX 1

ENVIRONMENT REGISTER

OTTER GOLD NL
TENEMENT ENVIRONMENTAL MANAGEMENT REGISTER
LAND STATUS RECORD

Project: Otter Gold NL

Tenement Name: Frankenia

Tenement No's: EL's 8283, 8284, 8931 & 9249

Registered Holder(s): Otter Gold NL and Acacia Resources.

Date Granted: 13/10/97 **Term:** 6 years
Area: EL 8283 - 72 blocks 232 sq. km
8284 - 57 blocks 183 sq. km
8931 - 28 blocks 90 sq. km
9249 - 20 blocks 64 sq. km

Bond/Security: None

JV Partners(if any): Acacia Resources **Station:**

Land Classification: Aboriginal Land

Land Holder/Occupier: Central Desert Aboriginal Land Trust **Station:**

Address: C/- Central Land Council **Phone:** (08) 895516335
PO Box 3321
Alice Springs NT 0871

Contacted By: Bichard Exploration / Admin **Date:**

Pastoral Notes:

Environmental Notes: May contain some rare and uncommon plants / wildlife

Groundwater:

Aboriginal Notes: Area subject to Frankenia Deed

Historic Relics:

Previous Activity:

OTTER GOLD NL
TENEMENT ENVIRONMENTAL MANAGEMENT REGISTER
PRE-EXISTING ENVIRONMENTAL DISTURBANCE RECORD

Tenement Names: Frankenia **No's:** El's 8283,8284, 8931 & 9249

Exploration Activity Area: Tanami Desert (refer to map references)

Shafts/Pits/Dumps: None

Track/Access: Tanami Track runs through EL's 9249 & 8284

Line Clearing: None

Costeaning: None

Drill Sites: None

Other: None (Camp sites, Cultivation, Forestry, Pastoral)

Location Data: 1:250,000 Tanami SE 52-15 & 1:250,000 The Granites SF 52-3

Compiled by: Barbara Cameron

Date: 12/10/99

OTTER GOLD NL
TENEMENT ENVIRONMENTAL MANAGEMENT REGISTER
ENVIRONMENTAL IMPACT RECORD

Tenement Name: Frankenia **No's:** EL 8283,8284,8931 & 9249

Report Ref No's: Frankenia Annual Report – Year Two

Exploration Activities: Low impact regional 'Chopper' geochemical sampling

Grid & Traverses: None

Soil Sampling:
EL 8283 - 357 samples taken
EL 8284 - 408 samples taken
EL 8931 - 153 samples taken
EL 9249 - 354 samples taken

Costeans/pits:

Drilling:

Drill Traverses:

Drill Pads:

Ground Geophysics:

Access Tracks:

Camps:

Other:

Compiled by: Barbara Cameron **Date:** 12/10/99

OTTER GOLD NL
TENEMENT ENVIRONMENTAL MANAGEMENT REGISTER
REHABILITATION RECORD

Tenement Name: Frankenia

No(s): EL 8283,8284,8931 & 9249

Disturbance: Regional Exploration

Rehabilitation Date: 30/9/99

Grids & Traverses:

Soil Sampling: Surface holes backfilled

Costeans/Pits:

Drilling:

Drill Traverses:

Drill Pads/Access:

Ground Geophysics:

Access Tracks:

Camps:

Other:

Inspected / Clearances:

Bond/Security released:

Compiled by: Barbara Cameron

Date: 12/10/99

Follow-up Inspection Report: 12/10/2000

APPENDICES

2 to 5

SOIL REGISTER

On Floppy Disk enclosed

APPENDIX 2 EL8283

APPENDIX 3 EL8284

APPENDIX 4 EL8931

APPENDIX 5 EL9249