



# NORTH FLINDERS MINES LIMITED

## SECOND ANNUAL REPORT FOR EL8287 (SORE TOOTH NORTH) FOR THE YEAR ENDING 11 SEPTEMBER 1997

<b>1:250 000 Sheet Reference:</b>	<b>Mt Solitaire</b>	<b>SF52-4</b>
<b>1:100 000 Sheet Reference:</b>	<b>Davidson</b>	
	Mines & Energy	<b>56/1</b>
	National Mapping	<b>5057</b>
	<b>Reiff</b>	
	Mines & Energy	<b>56/2</b>
	National Mapping	<b>5157</b>

CR 97 / 590

## **SUMMARY**

This report describes the exploration activity and results obtained from EL8287 during the second year of tenure to 11 September 1997.

Both reconnaissance surficial sampling and RAB drilling was undertaken, with a small amount of follow up work.

Exploration comprised:

- Lag sampling (64 samples)
- CRC sampling (80 samples)
- RAB drilling (20 holes for 907m, 318 samples)

Results from the drilling are outstanding at the time of writing and no assays of significance were returned from the first pass surficial sampling.

Exploration in the third year of tenure will focus on developing new targets for appraisal.

## **TABLE OF CONTENTS**

### **Page Number**

<b>1. INTRODUCTION .....</b>	<b>1</b>
<b>2. TENEMENT DETAILS .....</b>	<b>1</b>
<b>3. LOCATION, ACCESS AND PHYSIOGRAPHY .....</b>	<b>1</b>
<b>4. PREVIOUS EXPLORATION .....</b>	<b>2</b>
4.1 PREVIOUS EXPLORATION BY OTHER COMPANIES.....	2
4.2 PREVIOUS EXPLORATION BY NFM .....	2
<b>5. EXPLORATION OBJECTIVES .....</b>	<b>3</b>
<b>6. GEOLOGY .....</b>	<b>4</b>
6.1 TANAMI REGIONAL GEOLOGY .....	4
6.2 EL8287 (SORE TOOTH NORTH) GEOLOGY .....	5
<b>7. WORK UNDERTAKEN - EL8287, SORE TOOTH NORTH .....</b>	<b>6</b>
7.1 ROCK CHIP SAMPLING.....	6
7.2 LAG SAMPLING.....	7
7.3 RAB DRILLING.....	8
<b>8. EXPENDITURE INCURRED FOR THE REPORTING PERIOD .....</b>	<b>9</b>
<b>9. FORWARD PROGRAMME .....</b>	<b>9</b>
9.1 PROPOSED WORK.....	9
9.2 PROPOSED EXPENDITURE .....	9
<b>10. REFERENCE LIST / ANNUAL REPORT BIBLIOGRAPHY .....</b>	<b>10</b>

## **LIST OF FIGURES**

		<b>Scale</b>
Figure 1	NFM Tenements (Tanami Region, NT) Showing Location of EL8287	1:1,000 000
Figure 2	EL8287 Location and Access Plan	1:250 000
Figure 3	Composite Rock Chip Sample Location Plan	1:150 000
Figure 3a	Composite Rock Chip Sample Location Plan – Detail of Northern Area	1:2 500
Figure 3b	Composite Rock Chip Sample Location Plan – Detail of Southern Area	1:5 000
Figure 4	Lag Sample Location Plan	1:150 000
Figure 5	RAB Drillhole Location Plan	1:150 000
Figure 6	DSL & VBCL Sample Location Plan	1:150 000

## **LIST OF APPENDICES**

Appendix 1	Sampling Methods and Analytical Techniques
Appendix 2	Logging Codes
Appendix 3	Survey Methodology
Appendix 4	CRC Sample Data, Assays and Logs
Appendix 5	Lag Sample Data, Assays and Logs
Appendix 6	RAB Drill Hole Data

## 1. INTRODUCTION

Sore Tooth North, EL 8287, is located 85 kilometres northeast of The Granites Gold Mine. Figure 1 indicates the position of the licence area in relation to other NFM tenements.

Quartz vein systems mapped within EL8287 by the BMR on the Mt Solitaire 1:250 000 geological map sheet provided the Company with the initial gold exploration targets it sought in the area. During the first year of tenure, exploration activity comprised appraisal of Tanami Joint Venture reports, assessment of remotely sensed data, lag sampling, composite rock chip sampling and petrological study of rock chips.

Work during the reporting period aimed at evaluating outcropping quartz veins in the north of the tenement, resolving the relationship of the area to the Tanami Complex, and following up 1996 lag sample results.

## 2. TENEMENT DETAILS

EL8287 was applied for on 6<sup>th</sup> July 1993, and granted on 12<sup>th</sup> September 1995. It comprises 168 blocks. A 50% reduction of the licence area was notified to the Department on 11<sup>th</sup> August 1997.

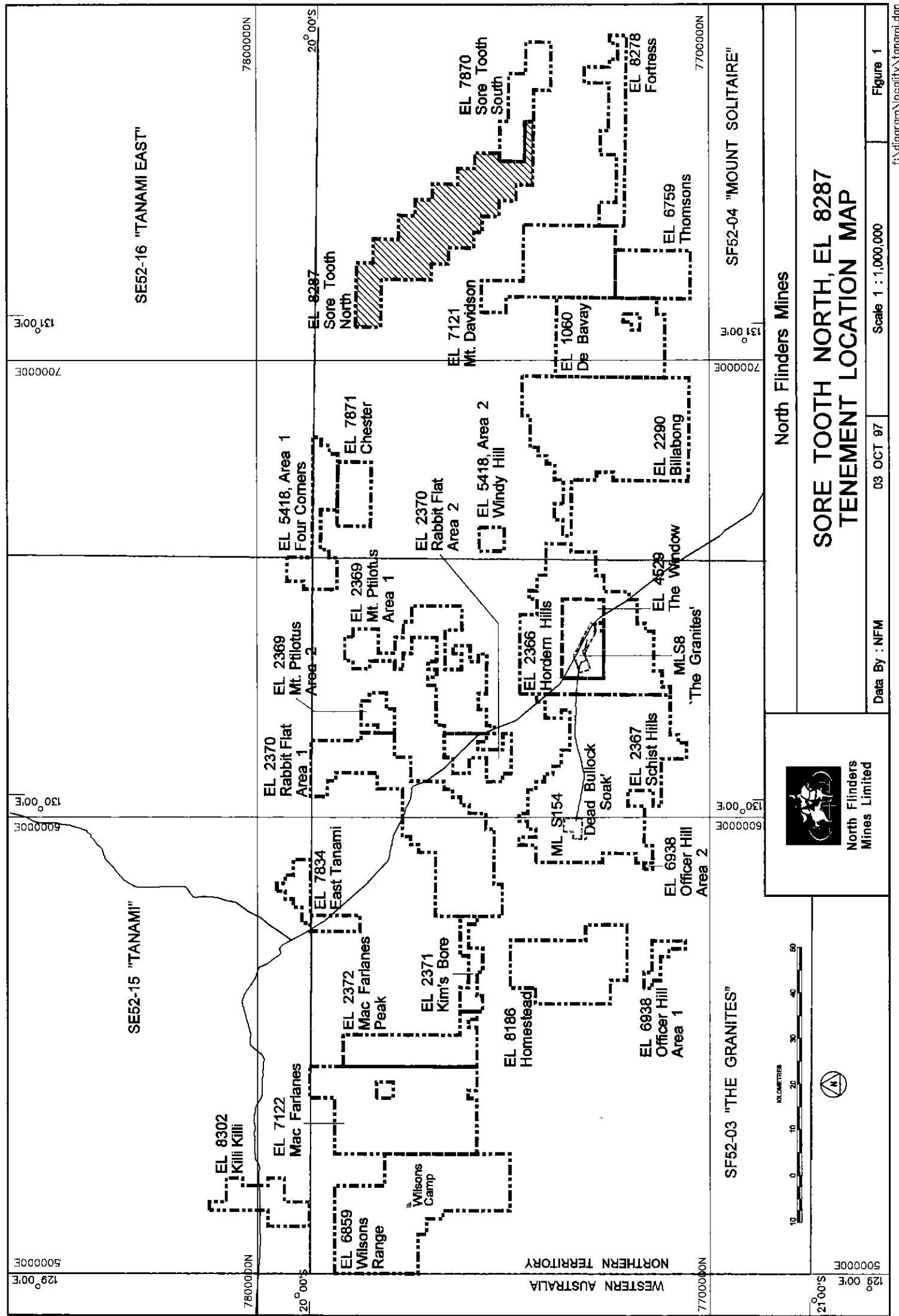
**TABLE 1 - Tenement Summary, EL8287 (Sore Tooth North)**

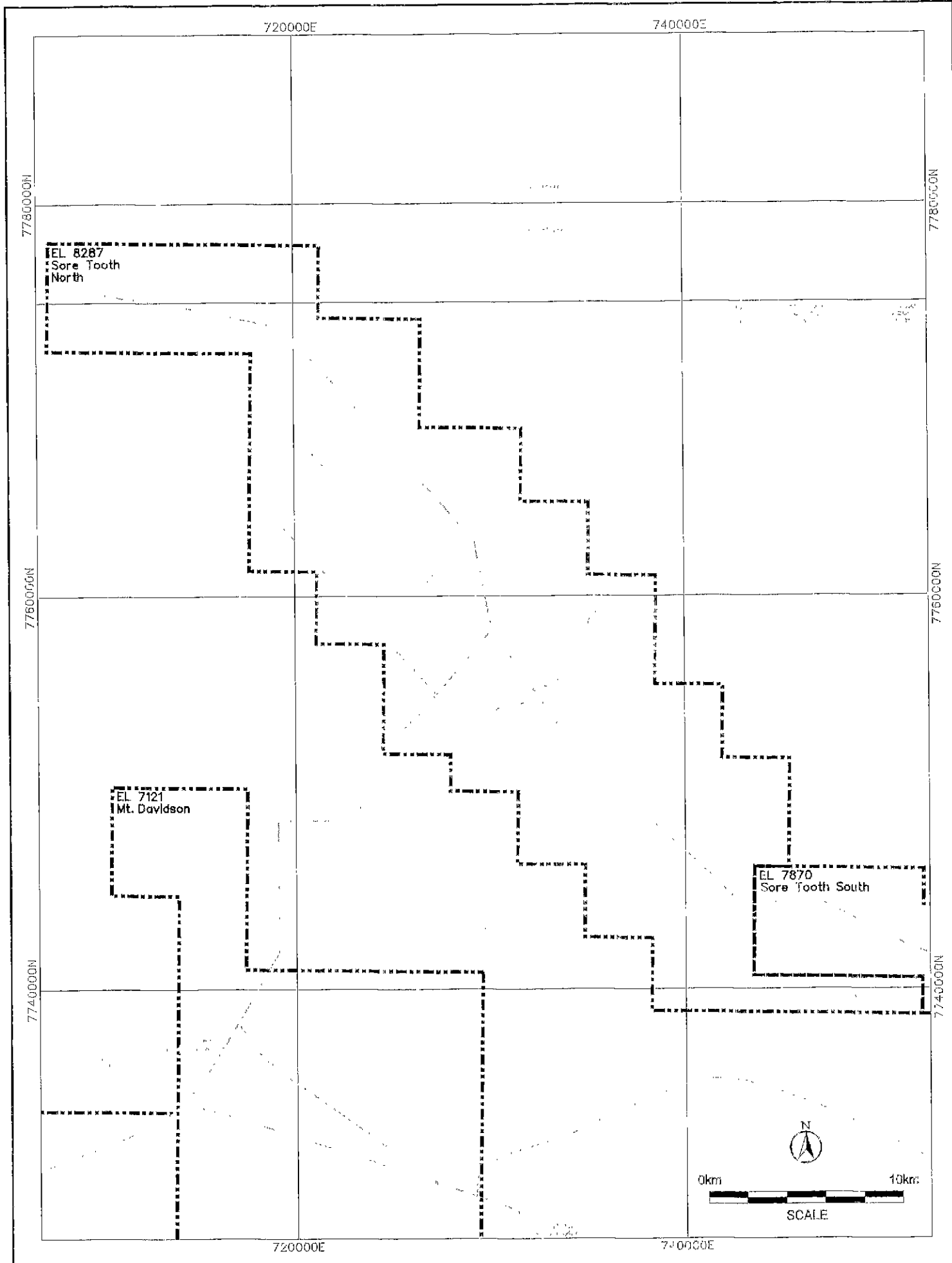
Area Name	Blocks	Km <sup>2</sup>	Grant Date	Expiry Date	Covenant
Sore Tooth North	168	541	12/09/95	11/09/01	\$20, 000

## 3. LOCATION, ACCESS AND PHYSIOGRAPHY

Situated within the 1:250 000 map sheet SF52-4, Sore Tooth North (EL8287) lies approximately 85 kilometres northeast of The Granites Gold Mine (see Figure 1). Access from The Granites is via a well established track which services the Mt Davidson Outstation and then continues to the northeast until EL8287 is reached. A northwest trending graded track runs through the centre of the EL (refer to Figure 2).

A low topographic ridge follows the axis of the tenement. This ridge is capped by abundant residual laterite and quartz scree. The vein systems mapped by the BMR outcrop as hills, tens of metres above the surrounding plains. North of the ridge the area is covered by wind blown sand and sand dunes. South of the ridge the area is flat, with patches of pisolitic laterite, quartz scree and scattered outcrops of granite.





North Flinders  
Mines Limited

North Flinders Mines

## SORE TOOTH NORTH LOCATION AND ACCESS PLAN

Data By : NFM

03 OCT 97

Scale 1 : 250 000

Figure 2

[X:\diagram\locality\nec\sore.toothnorth.dgn

## 4. PREVIOUS EXPLORATION

### 4.1 Previous Exploration by Other Companies

There has been little previous exploration over EL8287. Between 1962 and 1978 the BMR carried out a regional mapping programme and a helicopter supported gravimetric survey of the Mt Solitaire sheet.

In 1989 the Tanami Joint Venture partners commissioned an airborne magnetic/radiometric survey (terrain clearance 90m, flight line spacing 500m) which covered much of the area currently held as EL8287. Shortly afterward, in May 1989, Harlock Pty Ltd was granted exploration licences 5419 (which includes much of the central and northern parts of EL8287) and 5420 (which includes a small southern portion of EL8287). The TJV team were initially attracted to the more magnetically responsive zones away from the area covered by this report.

In August 1990, a helicopter supported geochemical sampling programme was carried out. Outcrop, subcrop, laterite and quartz-ironstone gravel were collected and subjected to multi-element assay. However, only about five samples were collected from ground subsequently relinquished by the TJV out of EL5419 & 5420 and later granted to North Flinders Mines Ltd as EL8287.

### 4.2 Previous Exploration by NFM

A summary of work completed during the first year of tenure is provided in the table below.

**TABLE 2 - Fieldwork Undertaken During the Year to September 11, 1996**

<b>Year</b>	<b>Rockchip (samples)</b>	<b>Lag (samples)</b>	<b>Petrology (samples)</b>
1	76	244	3

Lag samples were collected at a spacing of 1000m x 500m wherever possible. A Global Positioning System (GPS), utilising a Trimble Transpac II instrument with external aerial, was used for navigation and to determine sample location. As lag material is not abundant in this tenement, less than 30% of the planned sites were sampled. Although a smaller area was sampled than originally intended, sample density was increased where lag material was abundant.

A small number of rock chip (CRC) samples were also collected from outcrop, sub-outcrop and scree patches. CRC samples consisted of granite, foliated granite, schists, quartz, undeformed sandstone and laterite.

Mineralogical examination of 3 rock chip samples was undertaken by consultant petrologists Pontifex and Associates Pty Ltd. All samples were collected from the area interpreted as being part of the Wiso Basin sequence from geophysical data (refer to First Annual Report for EL8287 Sore Tooth North, October 1996, DAC Archibald).



## 5. EXPLORATION OBJECTIVES

Exploration and mine studies have indicated that gold mineralisation in the region has an association with a range of geological environments. Models of gold occurrence for which the Tanami is believed to be most prospective include:

- Disseminated, stratabound deposits hosted by banded iron formations
- DBS-Granites styles of mineralisation, controlled by anticlinal folding and iron-rich lithologies
- Discordant stockwork deposits of gold in relatively late stage quartz veins
- Gold mineralisation in veins hosted by shear zones with strong alteration characteristics
- Deposits in regolith containing gold concentrated by alluvial, eluvial or alteritic processes.

With these models in mind, the Company's geologists have selected prospective target exploration areas based on regional geological, structural, geophysical and geochemical data.

Exploration targets within EL8287 comprised potential gold mineralisation associated with the mapped quartz vein systems and potential carbonate hosted lead/zinc mineralisation in the younger sediments of the Wiso Basin.

Objectives during the first year of tenure were to:

- assess work already undertaken by Zapopan NL
- interpret airborne magnetic data in combination with SPOT satellite imagery
- undertake a detailed regional lag sampling programme over the entire licence area
- undertake a composite rock chip sampling programme wherever outcrop or subcrop existed.

Objectives during the second year of tenure were to:

- evaluate the potential of an outcropping quartz veins in the north of the tenement by surface sampling.
- follow up anomalous values from the 1996 lag sampling programme
- resolve the geological affinity of the sedimentary units within the tenement.

## 6. GEOLOGY

### 6.1 Tanami Regional Geology

The Granites-Tanami Goldfield lies in the eastern part of the Early Proterozoic Granites-Tanami Inlier which is part of the Northern Australian Orogenic Province (Plumb, 1990). The Inlier abuts the Arunta Complex to the south and east and is overlapped by younger cover sequences including the extensive Paleozoic Wiso Basin on its northeastern margin. To the west, clastic sediments of the Middle Proterozoic Birrindudu Basin overlie and separate the Inlier from similar age rocks in the Halls Creek Province.

Tertiary drainage channels, now completely filled with alluvial and lacustrine clays and calcrete are a major feature of the region. Some drainage profiles are 10 km wide and 100m deep, presenting a formidable barrier to mineral exploration.

Gold mineralisation within the NFM tenement holding is hosted by the Mt Charles Beds, a sequence of fine to medium-grained turbiditic metagreywackes with lesser amounts of metapelite, graphitic schist, banded iron-formation, chert and basic volcanic rocks (Blake et al, 1979). Owing to their more resistant nature, only the cherts and iron-formations and associated interbedded graphitic schists tend to outcrop above the sand plain.

A suite of syn-to post-deformation dolerites and gabbros frequently invade the graphitic schist components of the sequence. Large plutons of mostly undeformed late-to post-orogenic adamellite and minor more mafic variants comprising The Granites Granite suite are widespread throughout the area.

Residual hills of gently folded Carpentarian Gardiner Sandstone unconformably overlie Early Proterozoic lithologies. Younger flatlying Cambrian Antrim Plateau Basalts are also preserved as platform cover in areas protected from erosional stripping.

Complex, polyphase deformation during the Barramundi Orogeny has affected the entire Granites-Tanami Inlier. It appears to have been largely controlled by two sets of regional scale fundamental crustal fractures that trend NNE and WNW. This is evidenced by the orientation of successive phases of macroscopic folding in the region and the consistent sympathetic trends of late tectonic faults.

Peak metamorphism during the Barramundi Orogeny reached amphibolite facies at The Granites Gold Mine (Mayer, 1990), but is more generally greenschist facies as at Dead Bullock Soak (Lovett et al, 1993). Contact metamorphic aureoles, commonly identified in pelitic schist units by randomly orientated andalusite porphyroblasts, are well developed at the margins of the post-orogenic granite plutons.

## 6.2 EL8287 (Sore Tooth North) Geology

Two main geological provinces are present within the tenement area, the first comprising palaeozoic Wiso Basin sequences (Cambrian Antrim Plateau Volcanics, Cambrian Montejinni Limestone and Ordovician Lake Surprise Sandstone).

The second province is the Early Proterozoic Tanami Complex, consisting of Mt Charles Beds greywacke and undifferentiated granitoids. Table 3 outlines the stratigraphic relationships within the tenement area.

**TABLE 3 - Stratigraphic Relationships**

	Unit	Symbol (BMR)
Palaeozoic	Lake Surprise Sandstone	Pzl
	Montejinni Limestone	Cmm
	Antrim Plateau Basalt	Cla
Early Proterozoic	Undifferentiated Granitoids	Pg
	Mt Charles Beds	Ptc

A low topographic ridge runs in a northwesterly direction along the axis of this elongated exploration licence. Southwest of this ridge the landscape is flat, with rare occurrences of pisolitic laterite and quartz scree. There are also scattered outcrops of foliated and unfoliated Proterozoic granite in this area. Sands derived from these granites contribute to the surficial cover.

The highest parts of the central ridge rise tens of metres above the surrounding plain and are marked by exposures of quartz vein (breccia) systems, which have been mapped by the BMR. Abundant residual laterite flank these topographic features.

The portion of the tenement northeast of the ridge is largely covered by wind blown sand and sand dunes. Sediments of the Wiso Basin are thought to lie beneath the aeolian cover. Low outcrops of undeformed sandstone mapped in the far north of EL8287 may represent Lake Surprise basinal sandstones. The age relationship of this sandstone is not clear from field evidence, but it is considered younger than Proterozoic age.

Geomorphological units within the tenement area are given in Table 4 below.

**TABLE 4 - Geomorphological Units within EL 8287 (Sore Tooth North)**

Unit	Sub unit	Description
R (Relict)		Residual pisolitic laterite in the northwest of the tenement, after Cla?
E (Erosional)	E(sed)	Partially striped and weathered Wiso Basin sediments.
	E(q/l)	Eroding ridge consisting of abundant quartz veins, quartz scree and pisolitic laterite.
D (Depositional)	D/E(sed)	Aeolian sand over partially striped and weathered Wiso Basin sediments.
	D/E(q/l/Pg/Sgw)	Aeolian sand over quartz scree, pisolitic laterite, weathered laterite and weathered greywacke.
	D/E(q/l/Pg/Sgw)	Alluvial clay and gravel over quartz scree, pisolitic laterite, weathered laterite and weathered greywacke.

## 7. WORK UNDERTAKEN - EL8287, SORE TOOTH NORTH

### 7.1 Rock Chip Sampling

A total of 80 composite rock chip (CRC) samples were collected from two specific areas, as shown on Figure 3.

70 of the samples are located in the northern area (shown in detail on Figure 3a) and all comprise quartz vein material. These samples were collected in 2 phases of work. The first phase involved 40 samples (619911 – 619950) and returned a peak gold result of 140ppb from quartz material with colloform/crustiform banding (sample number 619924). 30 samples (426701 – 426730) collected to follow up this result failed to locate mineralisation above detection (1ppb).

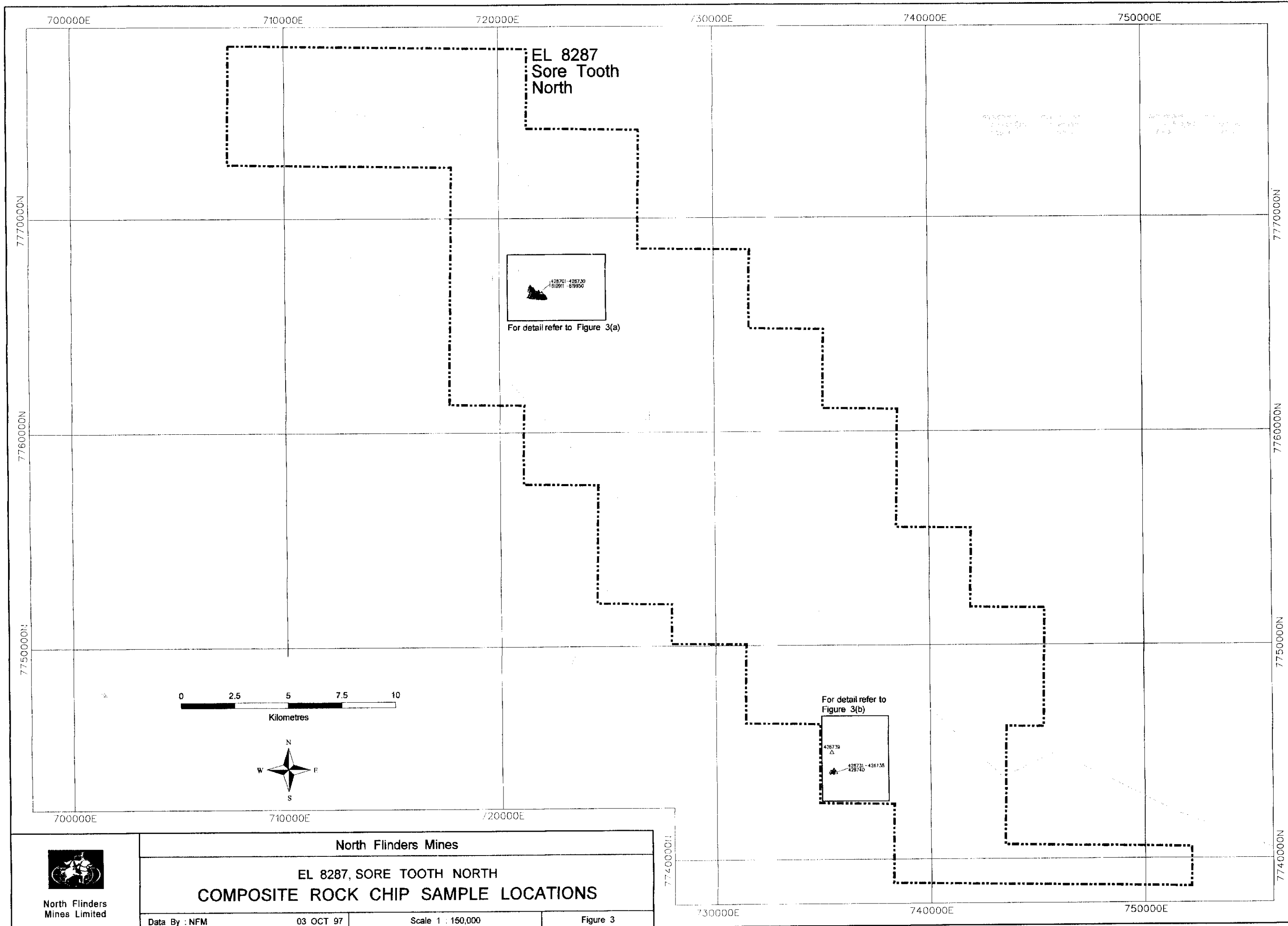
In the southern area, 10 samples were collected from outcropping granite (refer to Figure 3b). These samples were collected to follow up a 5ppb Au result received from a sample collected during 1996. None of the samples returned gold levels above detection (1ppb). Sampling methods are described in Appendix 1.

Sample locations were determined using the Global Positioning System (GPS), a Trimble Transpac II with external aerial. These sites were not marked. Samples were sent to Analabs (SA) for the analysis of elements outlined in Table 5 by the methods described in Appendix 1.

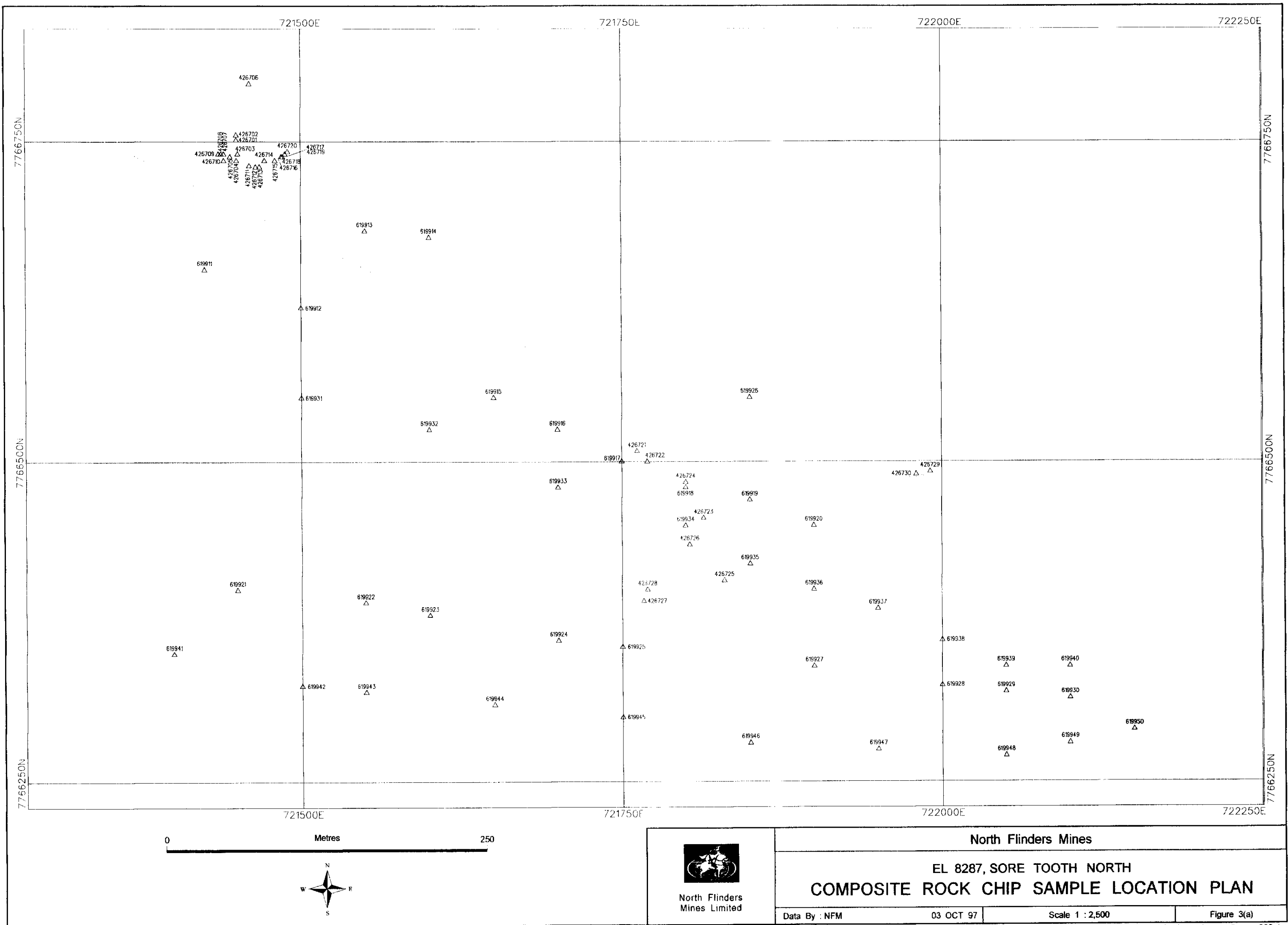
**TABLE 5 - CRC Sample Details EL8287 (Sore Tooth North)**

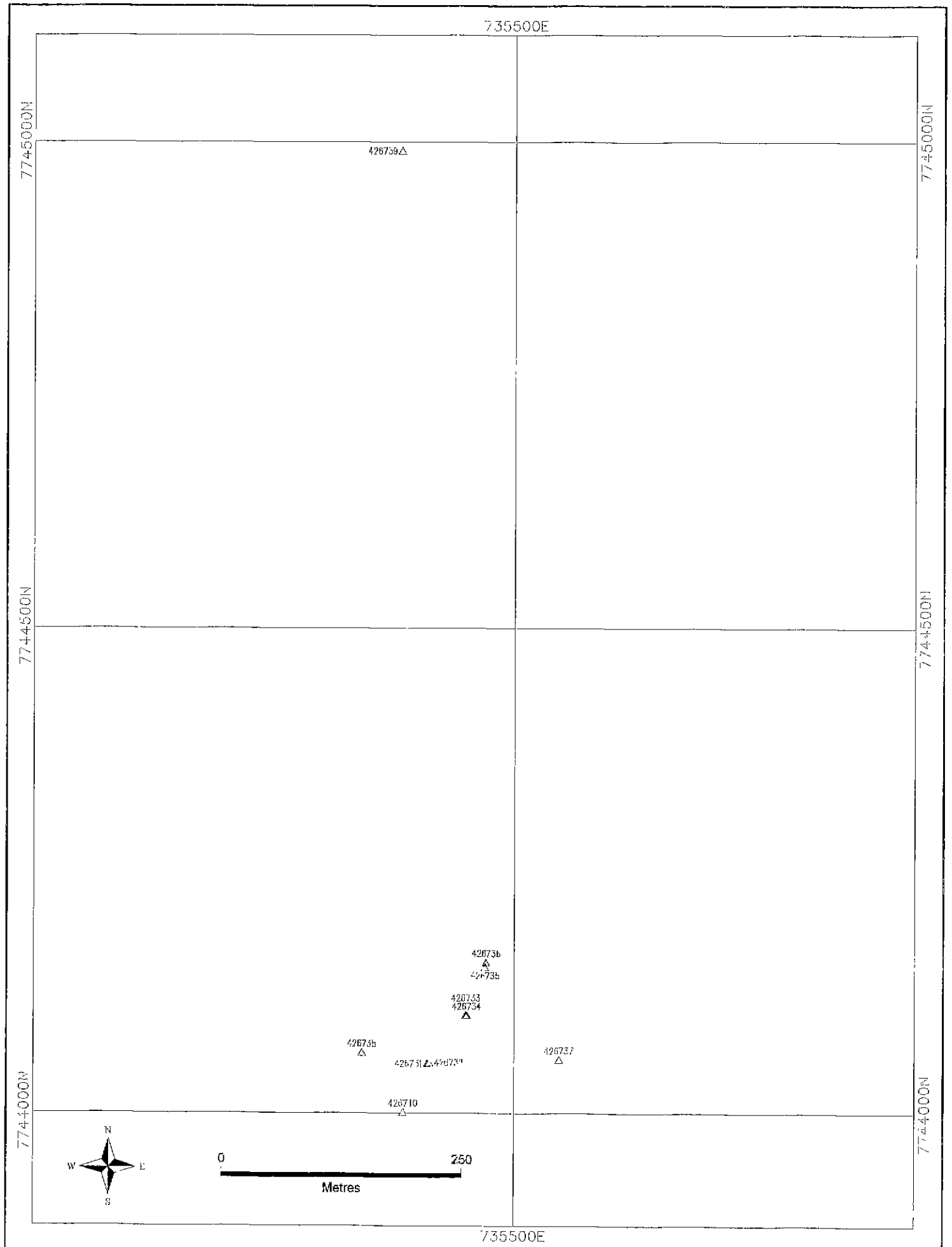
<b>Sample Numbers</b>	<b>Total</b>	<b>Analabs Method</b>	<b>Elements Analysed</b>
426701 - 426740	80	GG334	Au
619911 - 619950		GA115	Ag, As, Co, Cu, Mo, Ni, Pb, Zn
		GS201	Bi, Sb, Sn, U, W.

Complete assay records and sample descriptions are included in Appendix 4.



North Flinders  
Mines Limited





North Flinders  
Mines Limited

North Flinders Mines

EL 8287, SORE TOOTH NORTH  
**COMPOSITE ROCK CHIP SAMPLE LOCATION PLAN**

Data By : NFM

03 OCT 97

Scale 1 : 5,000

Figure 3(b)

## 7.2 Lag Sampling

Lag sampling was undertaken to infill areas of interest identified by samples collected in 1996. The 1996 lag sampling programme (1000m by 500m spaced) was infilled to 500m by 250m spacings in areas where samples returned >2ppb gold, >50ppm arsenic and >15ppm uranium. Material was scarce and only 50% of the intended sites were sampled.

A total of 64 lag samples were collected (sample numbers 3014401 – 3014464) in the northern and southern most portions of the tenement, as shown on Figure 4. The sampling technique is described in Appendix 1.

A Trimble Transpac II with external aerial was used for navigation along north - south orientated, AMG traverses and to determine sample location for lag.

All samples were sent to Genalysis Laboratory Services (Perth) and assayed for the elements listed in Table 6, by methods described in Appendix 1.

**TABLE 6 - Lag Sample Details EL8287 (Sore Tooth North)**

Sample Numbers	Total	Genalysis Method	Elements Analysed
3014401 - 3014464	64	B/ETA (BE)	Au
		B/AAS (BA)	Ag
		A/AAS (AA)	Cu, Fe, Ni, Zn
		A/MS (AM)	As, Bi, Co, Mo, Pb, Sb, Sn, U, W

Complete assay records and sample descriptions are included in Appendix 5.

Only one sample returned a result of interest. Sample number 3014461, a quartz sample returned a uranium content of 13.5ppm.

This sample was taken to follow up a 34ppm uranium and 52ppm arsenic anomaly from two samples collected the previous year. Sample spacing in this area is compromised by a lack of sample media. The underlying geology is unclear but possibly includes Mt Charles beds and granite. There is no evidence that middle Proterozoic sandstones are present in this area.





### 7.3 RAB Drilling

A small programme of RAB drilling was undertaken in the southern portion of the tenement which was not amenable to surficial sampling.

A total of 20 angled drillholes were completed for 907m, on 4 north-south traverses spaced 2km apart. These holes were drilled at 300 – 600m spacings over Tanami Complex sediments and up to 5km apart within granitic terrain (as shown on Figure 5).

The holes were angled 60° to the north and south as indicated in Table 7.

**TABLE 7 - RAB drilling details EL 8287 (Sore Tooth North)**

Line	Drillholes	Easting	Azimuth (mag.)	Declination	No. of Holes	Average Depth of Hole
1	SNRB001-SNRB004	743000.00	180°	-60°	4	50m
2	SNRB005-SNRB009	741000.00	0°	-60°	5	50m
3	SNRB010-SNRB015	739000.00	180°	-60°	6	35m
4	SNRB016-SNRB020	737000.00	0°	-60°	5	50m
<b>TOTAL</b>		<b>4 LINES</b>			<b>20</b>	<b>Total Metres = 907</b>

A total of 278 samples were collected from 3m composite intervals. These samples were dispatched to Australian Laboratory Services for analysis of the elements listed in Table 8. Descriptions of the analytical techniques are provided in Appendix 1.

Results have yet to be received from the laboratory.

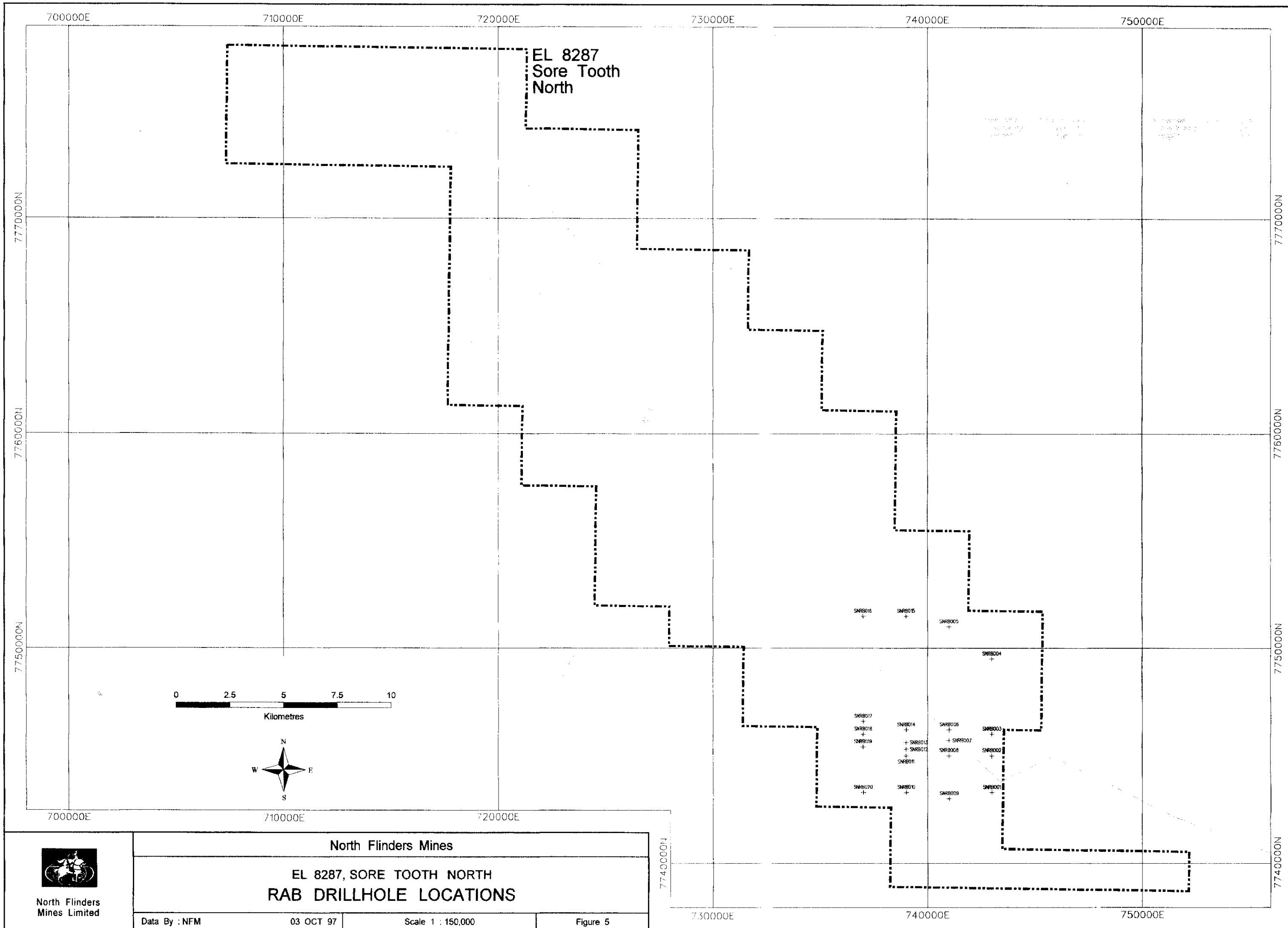
A BLEG and DSL sample were also collected from each RAB drill hole (refer to Table 8 and Figure 6). These samples have yet to be dispatched for analysis. The BLEG samples will be sent to Analabs for analysis and DSL samples will be sent to Genalysis.

**TABLE 8 - RAB Sampling Details EL8287 (Sore Tooth North)**

Sample Type	Sample No's	Total	Laboratory	Method	Elements
RAB	3086001 - 3086278	278	ALS	PM205 AA205	Au As
DSL	3010601 - 3010620	20	Genalysis	GG344	Au, As, Cu
BLEG	426901 - 426920	20	Analabs	B/ETA B/AAS A/AAS A/MS	Au Ag Cu, Fe, Zn, Ni As, W, Sn, Tb, Mo, Sb, Bi, U, Co

RAB drill hole details are provided in Appendix 6.

Outstanding assays, associated logs and expenditure attributed to analytical work will be detailed in the report for the third year of tenure.





## 8. EXPENDITURE INCURRED FOR THE REPORTING PERIOD

**TABLE 9 - Details of Exploration Expenditure for Reporting Period – EL8287**

<b>COST CENTRE</b>	<b>EL8287 TOTAL</b>
Geologist (15 days @ \$400/day)	6 000
Field Assistant (8 days @ \$250/day)	2 000
Analyses (Surface Sampling)	4 056
RAB Drilling	11 521
Analyses (RAB Drilling)*	—
Adelaide Support Costs**	6 618
Tanami Field Indirects***	24 975
<b>TOTAL</b>	<b>\$ 55 170</b>
COVENANT	\$ 20 000

Notes:

\* Analytical work for drill samples incomplete and not invoiced. Expenditure will be included in the account for the third year of tenure.

\*\* Adelaide Support Costs includes the cost of computer data management, in-house drafting and general administration but excludes salaries.

\*\*\* Tanami Field Indirects includes the cost of maintaining field camps and equipment, etc., but excludes field personnel wages.

## 9. FORWARD PROGRAMME

### 9.1 Proposed Work

Without results from the programme of RAB drilling, a forward programme is premature. However, as little encouragement was gained from surficial sampling, it is anticipated that further work will involve the generation of new targets for investigation.

### 9.2 Proposed Expenditure

Exploration expenditure on EL8287 is anticipated to exceed \$20,000 for the 12 month period to 11<sup>th</sup> September 1998.

## 10. REFERENCE LIST / ANNUAL REPORT BIBLIOGRAPHY

### References

- Blake, D., Hodgson, I.M., and Muhling, P.C., 1979. Geology of The Granites-Tanami region, Northern Territory and Western Australia, *Bur. Miner Resour. Geol. Geophys. Aust. Bull.* 197.
- Lovett, D.R., Giles, C.W., Edmonds, W., Gum, J.C. and Webb, R.J., 1993 *The Geology and Exploration of the Dead Bullock Soak Gold Deposit, The Granites-Tanami Goldfield N.T. The AusIMM Centenary Conference, Adelaide 30<sup>th</sup> March – 4<sup>th</sup> April, 1993.*
- Mayer, T.E. 1990. The Granites Gold Field, in *Geology of the Mineral Deposits of Australia and Papua New Guinea* (Ed F.E. Hughes) pp 719-724 (The Australasian Institute of Mining and Metallurgy: Melbourne).
- O'Driscoll, E.S.T. 1990. Lineament Tectonics of Australian Ore Deposits, in *Geology of the Mineral Deposits of Australia and Papua New Guinea* (Ed F.E. Hughes) pp 33-41 (The Australasian Institute of Mining and Metallurgy: Melbourne).
- Plumb, K.A. 1990. Halls Creek Province and The Granites-Tanami Inlier - regional geology and mineralisation, in *Geology of the Mineral Deposits of Australia and Papua New Guinea* (Ed F.E. Hughes) pp 681-695 (The Australasian Institute of Mining and Metallurgy: Melbourne).

### Reports to NT DME

- Archibald, DAC., 1996. First Annual Report for EL8287 (Sore Tooth North), for The Year Ending 11 September 1996.



## APPENDIX 1 - SAMPLING METHODS AND ANALYTICAL TECHNIQUES

### 1.1 SAMPLING METHODS

#### Surface and Vacuum Drill Samples

##### **CRC (Composite Rock Chip)**

Approximately 1kg of material, generally collected from outcrop as 10-15 chips, comprises a composite rock chip sample.

GPS equipment is used to determine reconnaissance sample locations in the absence of a local grid. Sampled sites have been marked with flagging tape and numbered aluminium permatags affixed to the outcrop or nearby tree.

##### **LAG/DSL (Drill-derived Stone Line)**

**Lag** is any hard residual surficial material varying from a coarse sand to rock fragments.

The sample is obtained via a shallow surface scrape, sieved to obtain approximately 250g of material and collected into a plastic zip seal bag. The size of the sieved fraction, which is variable from project to project, is listed in the sample logs.

Reconnaissance spaced sample sites are not marked, however infill sample sites are flagged in the absence of a local grid. Sample type, quality, description and size is noted at the time of collection and recorded via codes outlined in Appendix 2.

The samples are submitted for multielement analysis to provide a screen for other mineralisation styles

A **DSL** sample is a drill derived "buried" lag sample. Other than using a drill rig to bring the sample to surface, collection methods are identical to lag.

##### **BCL/BLEG (Bulk Cyanide Leach/Bulk Leach Extractable Gold)**

Many of the low relief areas have variable amounts of drainage sediments (typically arenitic alluvium +/- clay horizons) which are sampled via a bulk cyanide leach. Sufficient soil is sieved to obtain 5kg of -20# sample which was double bagged within a plastic liner to prevent cross contamination.

Standard BLEG analysis (Au, Ag and Cu) is performed by Analabs.

The samples may be subcategorised in the NFM database to distinguish sample derivation:

<b>Code</b>	<b>Derivation</b>	<b>Description</b>
VBCL	drill derived	usually vacuum, however some are sourced from RAB drillholes (parent drillhole listed next to sample number in datasheets)
DBCL	drainage	stream sediment from a defined drainage channel
SBCL	soil	surface BCL sample Note: Some drill derived samples have been coded SBCL where the sample represented a buried residual soil.



---

**RAB Drill Samples****Composite Samples**

RAB drillholes are typically composite sampled at 3m intervals where the geology is considered to be prospective. Depending on the program budget, the drillhole may be comprehensively sampled from surface, sampled only at particular lithologies or have been restricted to a bottom of hole sample. Drill spoil is riffle split to obtain 2kg composite samples. While this sample is customarily a 3m composite sample, the sample interval is ultimately left to the geologist's discretion. The sample intervals are clearly documented in the drillhole logs accompanying this report.

**BCL/BLEG**

as described above.

**DSL**

as described above.

## 1.2 ANALYTICAL METHODOLOGY

The Company uses a range of analytical laboratories depending on the project and sample medium. While the laboratory is identified in the discussions of work undertaken, what follows are tables describing analytical techniques and relevant detection limits for the elemental determinations.

The NFM database reports a two to three character summary of these codes. The NFM database code is listed in brackets immediately after the laboratory code.

All detection limits quoted in parts per million except where otherwise indicated.

### AUSTRALIAN LABORATORIES SERVICES (ALS)

ALS Method (NFM code)	Element [detection limit]
PM205 (205) 50g aqua regia digest, solvent extraction, graphite furnace AAS	As [1] Au [0.001]
AA204 (204) 20g aqua regia digest, graphite furnace AAS	As [5]
IC588 (ALS) HCL acid digestion with oxidant/organic solvent extraction, ICPMS (suitable for soil and stream sediment samples)	Cu Zn [1] As Bi Mo Sb [0.2] Ag [0.1]
IC205 (205) aliquot from aqua regia gold digestion (PM205)	Bi [2] As Cd Co Cu Ni Pb Zn [1]

### ANALABS

Analabs Method (NFM code)	Element [detection limit]
GA115 (115) 30g sample, aqua regia digest, AAS	As [5]
GG315 (315) Screened Fire Assay (weighted average gold value is reported for a 1000g sample after pulverising and screening at 75 microns and assaying the coarse and fine fractions separately)	Au [0.004]
GG329 (329) 30g sample, aqua regia digest, AAS	Au [0.02]
GG334 (334) 30g sample, aqua regia digest, carbon rod	Au [0.001]

continued....

## GENALYSIS LABORATORY SERVICES

Genalysis Method (NFM code)	Element [detection limit]
B/ETA (BE) Digestion B, Graphite Furnace Atomic Absorption Spectrometry	Au [1 ppb]
A/MS (AM) Digestion A, Induced Coupled Plasma Mass Spectrometry - ICP-MS	As [2] Sn [1] Mo Bi Ag Cd [0.5] Sb [0.2] La Nb Yb W U [0.1]
A/AAS (AA) Digestion A, Atomic Absorption Spectrometry	Ni [5] Pb [2] Zn Sn [1] Fe [0.1%]
AP/MS (AP) BP/MS (BP) Digestion A or B, precipitation and concentration, ICP-MS	Se [0.2]
A/OES (AO) Digestion A, Induced Coupled Plasma Light Emission Spectrometry - ICP-OES	Fe [0.01%] Ca [10] Zr [5] As Ba Ni [2]
B/AAS (BA) Digestion B, Atomic Absorption Spectrometry	Cu Co Zn [1] Ag [0.1]
D/OES (DO) Digestion D, ICP-OES	Cr [10%] Fe [0.1%] Mg [100ppm] Ti [5%]

Digestion A - multiacid digestion including HF

Digestion B - aqua regia digestion (nitric, perchloric and hydrochloric acids)

Digestion D - oxidative alkaline fusion using sodium peroxide flux and hydrochloric acid to dissolve the melt



## APPENDIX 2 - LOGGING CODES

### 2.1 SAMPLE CODES

#### General Sample Codes

<b>BLG</b>	BLEG (bulk leach extractable gold)	<b>M</b>	Missing
<b>C</b>	Core	<b>MISC</b>	Miscellaneous
<b>CC</b>	Continuous Cut	<b>MLT</b>	Multielement
<b>CF</b>	Cemented Ferricrete	<b>OT</b>	Other Type
<b>CL</b>	Cemented Laterite	<b>P</b>	Precollar
<b>CN</b>	Cemented Nodules	<b>PC</b>	Precollar
<b>COS</b>	Costean	<b>PER</b>	Percussion
<b>CP</b>	Cemented Pisolites	<b>PET</b>	Petrology
<b>CRC</b>	Composite Rock Chip	<b>RAB</b>	Rotary Air Blasting
<b>CV</b>	Cemented Veriform	<b>RC</b>	Reverse Circulation
<b>DBCL</b>	Drainage Bulk Cyanide Leach	<b>SBCL</b>	Soil Bulk Cyanide Leach
<b>DSL</b>	Drill-derived Stone Line	<b>SCAN</b>	Scan
<b>F</b>	Frag	<b>SF</b>	Screen Fire
<b>FA</b>	Fire Assay	<b>SOIL</b>	Soil
<b>FF</b>	Ferricrete Fragments	<b>SSS</b>	Stream Sediment Sample
<b>FN</b>	Ferricrete Nodules	<b>STRM</b>	Stream
<b>FP</b>	Ferricrete Pisolites	<b>V</b>	Veriform
<b>GVP</b>	Gas Vapour	<b>VAC</b>	Vacuum
<b>LAG</b>	Lag	<b>VBCL</b>	Drill-derived BCL
<b>LAT</b>	Laterite	<b>VL</b>	Veriform Laterite
<b>LF</b>	Loose Fragments	<b>VSOL</b>	Drill-derived Soil
<b>LN</b>	Loose Nodules	<b>WRCK</b>	Whole Rock
<b>LP</b>	Loose Pisolites		

#### Lag Sample Logging Codes

TYPE	QUALITY	DESCRIPTIONS	SIZE
<b>T</b> (ransported)	<b>A</b> (bundant)	<b>L</b> (ateric)	<b>F</b> (ine)
<b>R</b> (esidual)	<b>C</b> (ommon)	<b>R</b> (ocky)	<b>M</b> (edium)
	<b>P</b> (atchy)	<b>Q</b> (uartzose)	<b>C</b> (oarse)
	<b>R</b> (are)	<b>F</b> (erruginous)	
		<b>E</b> (arthy)	

## 2.2 RAB SAMPLE LOGGING CODES

## ROCK TYPE / LITHOLOGY

Rock type abbreviations always start with a capital. The capitals are chosen to show general categories:

**B** for base of oxidation categories

G for general igneous (including unclassified varieties of igneous rock as well as intrusive) but not known extrusive (G was chosen rather than I because of the problems of confusion of I with 1 and l).

**M** for metamorphic

☐ for regolith related rock types (includes regolith which is derived in situ as well as transported)

R for rock names outside these categories

**S** for sedimentary

T for tuff (separated from other volcanics to allow a simple tuff terminology)

**V** for volcanic/volcaniclastic (but note special tuff terminology above)

	<b>Oxidation</b>	Gsy	syenite	Ois	ironstone
Bow	base of partial oxidation	Gta	trachyandesite	Olg	lag (gravel)
Box	base of total oxidation	Gtj	trondhjemite	Oln	lignite
	<b>Igneous (non-extrusive)</b>	Gto	tonalite	Olo	loam
Gad	adamellite	Gtr	trachyte	Olt	laterite
Gal	alaskite	Gub	ultrabasic general	Omd	mud
Gan	andesite	Gum	ultramafic general	Omg	magnesite rock (weathering related)
Gao	anorthosite	Guu	igneous rock (undifferentiated)	Oou	overburden general
Gap	aplite		<b>Metamorphic</b>	Ops	podsol
Gau	acid rock (undifferentiated)	Mam	amphibolite	Opt	plinthite
Gbu	basic rock (undifferentiated)	Mcs	calc-silicate	Orb	rubble
Gcb	carbonatite	Mes	endoskarn	Osa	A-horizon soil
Gcp	clinopyroxenite	Mfs	felsic schist	Osb	B-horizon soil
Gdc	dacite	Mgf	granitels	Osc	C-horizon soil
Gdl	dolerite	Mgn	gneiss	Osk	scree
Gdn	dunite	Mgr	granulite	Osl	silt, unconsolidated
Gdr	diorite	Mhf	hornfels	Osn	sand, unconsolidated
Gft	felsite	Mmb	marble	Osp	saprolite
Gfu	felsic rock (undifferentiated)	Mmi	migmatite	Osr	saprock
Ggb	gabbro	Mms	mafic schist	Ost	silcrete
Ggd	granodiorite	Mmu	metamorphic (undifferentiated)	Osu	soil general
Ggp	granophyre	Moa	orthoamphibolite	Otr	Travertine
Ggt	granite (sensu stricto)	Mog	orthogneiss		<b>Uncategorized</b>
Ggu	granitic rock (undiff), granitoid	Mpa	para-amphibolite	Rbx	breccia
Ghb	hornblende	Mpg	paragneiss	Rcb	carbonate rock undifferentiated
Ghz	harzburgite	Mph	phyllite	Rcc	cataclasite
Giu	intermediate rock unclassified	Msc	schist	Rfb	fault breccia
Gkb	kimberlite	Msk	skarn	Rfz	fault rock or fault zone (undiff)
Glg	leucogranite	Mst	slate	Rgs	greisen
Glm	lamprophyre	Msu	metasediment general	Rgx	gouge
Glt	latite	Mvu	metavolcanic general	Rku	rock general or rock type
Gmu	mafic rock (undifferentiated)	Mxs	exoskarn	Rln	rock - not logged
Gmz	monzonite		<b>Regolith and Overburden</b>	Rms	massive any mineral
Gnr	norite	Oal	alluvium	Rmy	mylonite
Gop	orthopyroxenite	Obt	bauxite	Rnb	not rock - backfilled stope
Gpg	pegmatite	Obx	regolithic breccia	Rnc	not rock - contamination
Ggh	phonolite	Occ	calcrete	Rnh	not rock - hole
Gpp	porphyry	Ocl	colluvium	Rnp	not rock - stope
Gpr	peridotite	Ocp	caprock	Rns	not rock - no sample return
Gpy	pyroxenite	Ocy	clay	Rnw	not rock - wood
Gqd	quartz diorite	Odu	duricrust general	Rph	phyllonite
Gqg	quartz gabbro	Oel	eluvium	Rsz	shear zone or sheared rock
Gql	quartz latite	Ofc	ferricrete	Rtt	tectonite
Gqm	quartz monzonite	Ogo	gossan	Ruu	unidentified rock
Grd	rhyodacite	Ogv	gravel	Rvc	carbonate vein
Gry	rhyolite	Ogy	gypcrete	Rvq	quartz vein
Gsp	serpentinite	Ohm	humus	Rvu	vein general
		Ohp	hardpan		

<b>Sediments - general</b>		<b>Sediments - chemical</b>		<b>Volcanics and Volcaniclastics (other than tuff)</b>	
Sbx	sedimentary breccia	Sct	chert	Vag	agglomerate, volcanic
Sco	coal	Sdo	dolomite	Van	andesitic volcanic
Sdi	diatomite	Sex	exhalite	Vbs	basalt
Sdu	sediment general	Sic	iron formation carbonate facies	Vdc	dacitic volcanic
Sph	phosphorite	Sif	iron formation general	Vft	felsitic volcanic
<b>Sediments - clastic</b>		Sil	iron formation silicate facies	Vhc	hyaloclastite
Sag	argillite	Sio	iron formation oxide facies	Vhm	high magnesium basalt
Sak	arkose	Sis	iron formation sulphide facies	Vig	ignimbrite
Sar	boundstone (carbonate)	Sjs	jaspilite, jasper	Vkm	komatiite
Sca	calcarene	Slm	limestone	Vkt	keratophyre (volcanic)
Scg	conglomerate	Smg	magnesite rock (sedimentary)	Vlh	lahar
Scl	calcilutite	<b>Tuff</b>		Vob	obsidian
Scr	calcirudite	Tan	andesitic tuff	Vpc	pyroclastic
Scy	claystone	Tac	acid tuff	Vpp	peperite
Sdm	diamictite	Tdc	dacitic tuff	Vrd	rhyodacitic volcanic
Sgr	grit	Til	lithic tuff	Vry	rhyolitic volcanic
Sgs	grainstone (carbonate)	Tlv	lithic vitric tuff	Vsp	spilite (volcanic)
Sgw	greywacke	Tlx	lithic crystal tuff	Vta	trachyandesitic volcanic
Smc	micrite	Try	rhyolitic tuff	Vtb	trachybasaltic volcanic
Smd	mudstone	Tta	trachyandesitic tuff	Vtc	trachytic volcanic
Sml	marl	Ttb	basic tuff	Vth	tholeiitic volcanic
Spa	packstone (carbonate)	Ttc	trachytic tuff	Vub	ultrabasic volcanic
Spe	pelite	Ttf	felsic tuff	Vum	ultramafic volcanic
Sqo	orthoquartzite	Tti	intermediate tuff	Vva	acid volcanic
Sqt	quartzite	Ttm	mafic tuff	Vvb	basic volcanic
Srd	rudite	Ttu	tuff generak	Vvc	volcaniclastic
Srs	rudstone (carbonate)	Tub	ultrabasic tuff	Vvf	felsic volcanic
Ssa	subarkose	Tum	ultramafic tuff	Vvi	intermediate volcanic
Ssg	subgreywacke	Tvl	vitric lithic tuff	Vvm	mafic volcanic
Ssh	shale	Tvv	vitric tuff	Vvu	volcanic undifferentiated
Ssl	siltstone	Tvx	vitric crystal tuff		
Ssn	sandstone	Txl	crystal lithic tuff		
Stb	turbidite	Txv	crystal vitric tuff		
Sti	tillite	Txx	crystal tuff		
Swk	wacke				

### Estimates of abundance and intensity

Quantitative estimates of abundance as percentages must directly follow the mineral or rock that they refer to, and consist of a two digit number ranging from 01 to 99. Quantitative estimates of intensity must consist of a number from 0 to 5, referring to a scale from absent to intense as listed below, and must directly follow the term referred to. Quantitative estimates should generally be for characteristics such as weathering for which a percentage is meaningless.

0	absent	3	moderate, common
1	trace, rare	4	strong, abundant
2	weak, minor	5	intense, very abundant

### COLOUR

Colour codes have been organised to give the same descriptions as those listed in the Rock-Colour Chart prepared by the Geological Society of America. The colour chart should be used for any detailed logging, but the codes can also be used for rough descriptions (eg Ocyb meaning brown clay). The strongest hue is listed first, the weaker hue (if present) is listed second, and the strength/shade listed last eg (BY5 equals moderate yellowish brown).

<b>Hues</b>				<b>Strength/Shade</b>	
A	grey	O	orange	1	very pale
B	brown	P	purple	2	pale
G	green	R	red	3	light
I	pink	U	blue	4	medium light
L	olive	W	white	5	moderate
N	black (noir)	Y	yellow	6	dusky
				7	very dusky
				8	dark
				9	very dark

## QUALIFIERS

Composition					
acd	acid	vcl	volcanolithic	irr	irregular (but not bedding, see "bdr")
alk	alkaline general	vit	vitric	ist	interstitial
amb	amphibolitic	ubc	ultrabasic	knt	knotted
and	andesitic		<b>Texture</b>	lap	lapilli textured, lapilli
apl	aplitic	acc	acicular	len	lenticular or as lenticles
arg	argillaceous	adc	adcumulate textured	lmb	imbricated
ark	arkosic	agg	agglomeratic	mas	massive (not bedding, see "bds")
arn	arenaceous	alt	alternating	mct	mesocumulate textured
ash	ash bearing	amd	amygdaloidal or as amygdules	mig	migmatitic
bas	basic	ams	amorphous	mtx	matrix (in or of)
bic	bioclastic	ang	angular	mxx	matrix supported
bst	basaltic	anh	anhedral	nod	nodular or as nodules
cgt	conglomeratic	aph	aphanitic	ocl	ocellar, ocelli
cln	clean (washed)	apy	aphyric	oct	orthocumulate textured
cly	clayey	bdb	bedded, banded	pil	pillowed
cmt	cemented, cement	bdc	bedded, convoluted	plt	peletoidal
cty	cherty	bdg	bedded, graded	por	prophyritic or as phenocrysts
dac	dacitic	bdi	interbedded	ppb	porphyroblastic or as porphyroblasts
dir	dioritic	bdk	bedded, thick	prd	predominant or main
dir	doleritic	bdl	bedded, laminar	prs	porous
dol	dolomitic	bdm	bedded, medium	ptc	perthitic
dtv	dirty	bdn	bedded, thin	rad	radiating
dun	dunitic	bdr	bedded, irregular	rdd	rounded
fel	felsic	bds	bedded, massive	rel	relict
fer	ferruginous	bdt	bedded, turbiditic	rex	recrystallized
fsp	feldspathic	bdv	bedded, varved	rip	rippled, ripples
fst	felsitic	bdw	bedded, wavy	rod	rodded, columnar
gab	gabbroic	bdx	bedded, cross	san	subangular
grd	granodioritic	bed	bedded, bedding	sbh	subhedral
grn	granitic	blb	blebs	sbo	subordinate
grp	granophyric	blk	blocky	sbr	subrounded
hmg	high magnesium (basalt)	bot	botryoidal or as botryoids	sfx	spinifex textured
int	intermediate	brn	branchings, anastomosing	skl	skeletal
kom	komatiitic	cch	conchoidal	sph	spherulitic, spherules
lab	labile	cls	clastic or as clasts	stg	sorting good
leu	leucocratic	cnv	convoluted (but not bedding -see bdc)	stm	sorting moderate
lim	limey as in limestone	con	concretionary, concretions	stp	sorting poor
lth	lithic	cry	cryptocrystalline	stl	stylolitic
maf	mafic	csp	clast supported	sug	sugary
mag	magnetic	ctg	coatings	thk	thick, large
mel	melanocratic	dis	disseminated/disseminations	thn	thin, small
mgw	magnetic but weakly	dtr	doleritic	trc	trachytic
mmc	monomictic	ear	earthy	trn	transitional
mnz	monzonitic	eqg	equigranular	ufx	uniform textured
mud	muddy	euh	euhedral	var	variolitic
olg	oligomictic	fgm	fragmental or as fragments	ves	vesicular or in vesicles
ool	oolitic, oolites, ooliths	fib	fibrous	vgd	variegated
peg	pegmatitic	fis	fissile	vrn	vermiform
pel	pelitic	flb	flow banded	vug	vuggy
plm	polymictic	flg	flaggy	vvd	varved
pot	potassic	flt	flattened	wld	welded
rhy	rhyolitic	fri	friable, loose	wvb	wavey bedded
ryd	rhyodacitic	fst	felsitic	xen	xenolith or xenolithic
shy	shaley	glp	glomeroporphyrific	xsb	crossbedded
sly	silty	gls	glassey or 1 glass	xtl	crystalline
sty	slatey	gns	gneissic		
sny	sandy	grb	granoblastic		
spl	splitisrp serpentized	het	heterogeneous		
syt	syenitic	hft	hornfelsic		
thl	tholeiitic	horn	homogeneous		
ton	tonalitic	hrd	hard, hardened		
umf	ultramafic	ing	intergranular		
		inq	inequigranular		



**QUALIFIERS (continued)**

<b>Veining</b> vcb carbonate veined vlc vein on lithologic contact vlt veinlet vmr massive vein, reef vqc quartz carbonate veined vqz quartz veined vsk stockworked or as stockworks vst stringers vsv vein subvertical	mts metasomatic per pervasive phc phyllic pot potassic prp propylitic spl spilitic srp serpentinized	<b>Genetic</b> aeo aeolian agg agglomeratic all allochthonous alv alluvial aqu aqueous aug authigenic aut autochthonous clp collapse (as in collapse breccia) col colluvial dep depositional dig diagenetic dyk occurring as a dyke elv eluvial epc epiclastic qpg epigenetic ept epithermal ext extrusive flt float flv fluvial flw occurring as a flow glc glacial lgb lgnimbritic inf intraformational ins in situ itv intrusive mmc metamorphic, metamorphosed mmg greenschist facies mma amphibolite facies mmn granulite facies mml low grade metamorphism mmm medium grade metamorphism mmh high grade metamorphism ocp outcrop pmy primary pyc pyroclastic rew reworked sll occurring as a sill stm stromatolitic syg syngenetic trn transported tuf tuffaceous tur turbiditic vlc volcanoclastic vol volcanic
<b>Regolith</b> ars arenose (weathering profile term) blc bleached bxw boxworked (eg limonite-after-sulphide) cap cap or capping ccr calcreted fcr ferricreted frs fresh gly gley gos gossanous hpn hardpanized, hardpanned ind indurated lat lateritic lch leached lir lithorelics lom loamy lsg liesegang mot mottled or as mottles oxd oxidized pal pallid ped pedogenic pis pisolitic, pisolites, pisoliths plm plasmic res residual sap saprolitic sfl surficial sit silcreted spg supergene whl weathered, highly wmd weathered, moderately wsl weathered, slightly wtd weathered, weathering	<b>Structure</b> aug augen textured or as augen bou boudinaged bxw brecciated cbx crackle brecciated clv cleaved, cleavage cmn crenulated cta cataclastic ctt contorted fau faulted, fault fld folded, folds fol foliated, foliation frc fracture, in fractures iso isoclinal jnt jointed, jointing lin lineated or forming lineation mas massive myl mylonitic phy phylitic ptg pygmatic sch schistose, schistosity scl schlieren textured, schlieren shd sheared sls slickensided tec tectonic unf unfoliated	
<b>Alteration</b> aag advanced argillic abl biotite alteration acb carbonate alteration acl chlorite alteration acy clay alteration asl silica alteration asr sericite alteration atm tourmaline alteration blc bleached, bleaching grs greisenized hyd hydrothermal hyp hypogene	<b>Grain Size</b> gzv very fine grained (<0.1mm) gzf fine grained (0.1-0.25mm) gzm medium grained (0.25-0.5mm) gzc coarse grained (0.5-1.0mm) gzy very coarse grained (1.0-2.0mm) gzg granule, gritty (2.0-4.0mm) gzp pebbly (4-16mm) gzo cobbly (16-256mm) gzb bouldery (>256mm)	

## MINERAL NAMES

ac	actinolite	fx	feldspar (general)	pn	pentlandite
ad	adularia	fe	ferric iron oxides (goethite, hematite, limonite)	pp	phlogopite
aa	agate	fm	ferromagnesian mineral (genl)	ph	phosphate (general)
ab	albite	fl	fluorite	pi	pitchblende
aw	allanite	fu	fuchsite	pl	plagioclase
af	allophane	gh	gahnite	pt	platinum
ai	almandine	ga	galena	pr	prehnite
al	alunite	gn	garnet	ps	psilomelane
am	amphibole (general)	gi	garnierite	py	pyrite
ax	anatase	gl	glauconite	pz	pyrolusite
an	andalusite	go	goethite	pm	pyromorphite
ae	andradite	gr	graphite	pf	pyrophyllite
ag	anglesite	gs	grossularite	px	pyroxene
ah	anhydrite	gt	grunerite	po	pyrrhotite
ak	ankerite	gy	gypsum	qz	quartz (see also 'silica' & 'vein quartz')
ay	anthophyllite	hm	heavy minerals (general)	qc	quartz-carbonate mixture
at	antigorite	hd	hedenbergite	rc	rhodochrosite
ap	apatite	he	hematite	rd	rhodrite
ar	aragonite	hb	hornblende	rb	riebeckite
as	arsenopyrite	im	ilmenite	ru	rutile
ao	asbestos	ja	jarosite	sa	sanidine
au	auridium, gold	ka	kaolin	sc	scapolite
az	azurite	kf	K-feldspar	sh	scheelite
ba	barite	ky	kyanite	so	scorodite
bi	biotite	lx	leucoxene	sr	sericite
bs	bismuthinite	ll	lepidolite	se	serpentine
bn	bornite	li	limonite	sd	siderite
ca	calcite	lc	limonite after carbonate	sl	silliminite
cn	carbon (as in carbonaceous)	ls	limonite after sulphide	si	silica (general as in silicification, see qz, cs, op)
cb	carbonate (see also 'vein carbonate')	lp	limonite after pyrite	sm	smectite, montmorillonite
cl	carnotite	lz	lizardite	ss	smithsonite
ct	cassiterite	mg	magnesite	sp	sphalerite
cg	cerargyrite	mh	maghemite	sf	sphene
ce	cerussite	mt	magnetite	st	staurolite
cj	chabazite	mk	malachite	sb	stibite
ck	chalcedony	mn	manganese oxides (general)	sx	sulphates (general)
cc	chalcocite	mr	marcasite	su	sulphides (general)
cp	chalcopyrite	mi	mica (general)	tc	talc
cs	cherty silica	mc	microcline	tt	tetrahedrite
cl	chlorite	ml	mineral (general)	tn	tennantite
cd	chloritoid	mo	molybdenite	tz	topaz
cm	chromite	mz	monazite	tm	tourmaline
ch	chrysocolla	mu	muscovite	tr	tremolite
cq	chrysoprase	ne	meotocite	tb	torbanite
cy	clay (general)	nf	nepheline	ur	uraninite
cz	clinozoisite	nt	nontronite	ux	uranium minerals (general)
cx	clinophyroxene (general)	ol	olivine	vc	vein carbonate
cf	coffinite	op	opaline silica	vq	vein quartz
cu	copper, native	oc	orthoclase	vs	vesuvianite
co	cordierite	ox	orthopyroxene	vl	violarite
cv	covellite			wl	willernite
cr	cuprite			wo	wollastonite
di	diopside			wf	wolframite
do	dolomite			ze	zeolite
dr	dravite			zo	zoisite
en	enargite				
ep	epidote				
er	erythrite				



## **APPENDIX 3 - SURVEY METHODOLOGY**

### **Drillhole Locations**

RAB drillholes are located with reference to an established grid by measurement from the nearest peg. In areas where a grid has not been established, drillhole locations are determined by GPS equipment.

### **GPS Equipment**

- Trimble Transpac II with external aerial.

### **Sample Locations**

When collected within a gridded area, sample sites are located with reference to the grid. Outside a grid, sample locations are determined by GPS equipment.

## **APPENDIX 4 - CRC SAMPLE DATA, ASSAYS AND LOGS**



PRINTED: 10/09/97 11:45:11

$\Gamma_{\alpha}$   
 $\Gamma_{\alpha}$   
 $\Gamma_{\alpha}$   
 $\Gamma_{\alpha}$   
 $\Gamma_{\alpha}$

12  
 13  
 14  
 15  
 16  
 17  
 18  
 19  
 20  
 21  
 22  
 23  
 24  
 25  
 26  
 27  
 28  
 29  
 30  
 31  
 32  
 33  
 34  
 35  
 36  
 37  
 38  
 39  
 40  
 41  
 42  
 43  
 44  
 45  
 46  
 47  
 48  
 49  
 50  
 51  
 52  
 53  
 54  
 55  
 56  
 57  
 58  
 59  
 60  
 61  
 62  
 63  
 64  
 65  
 66  
 67  
 68  
 69  
 70  
 71  
 72  
 73  
 74  
 75  
 76  
 77  
 78  
 79  
 80  
 81  
 82  
 83  
 84  
 85  
 86  
 87  
 88  
 89  
 90  
 91  
 92  
 93  
 94  
 95  
 96  
 97  
 98  
 99  
 100  
 101  
 102  
 103  
 104  
 105  
 106  
 107  
 108  
 109  
 110  
 111  
 112  
 113  
 114  
 115  
 116  
 117  
 118  
 119  
 120  
 121  
 122  
 123  
 124  
 125  
 126  
 127  
 128  
 129  
 130  
 131  
 132  
 133  
 134  
 135  
 136  
 137  
 138  
 139  
 140  
 141  
 142  
 143  
 144  
 145  
 146  
 147  
 148  
 149  
 150  
 151  
 152  
 153  
 154  
 155  
 156  
 157  
 158  
 159  
 160  
 161  
 162  
 163  
 164  
 165  
 166  
 167  
 168  
 169  
 170  
 171  
 172  
 173  
 174  
 175  
 176  
 177  
 178  
 179  
 180  
 181  
 182  
 183  
 184  
 185  
 186  
 187  
 188  
 189  
 190  
 191  
 192  
 193  
 194  
 195  
 196  
 197  
 198  
 199  
 200  
 201  
 202  
 203  
 204  
 205  
 206  
 207  
 208  
 209  
 210  
 211  
 212  
 213  
 214  
 215  
 216  
 217  
 218  
 219  
 220  
 221  
 222  
 223  
 224  
 225  
 226  
 227  
 228  
 229  
 230  
 231  
 232  
 233  
 234  
 235  
 236  
 237  
 238  
 239  
 240  
 241  
 242  
 243  
 244  
 245  
 246  
 247  
 248  
 249  
 250  
 251  
 252  
 253  
 254  
 255  
 256  
 257  
 258  
 259  
 260  
 261  
 262  
 263  
 264  
 265  
 266  
 267  
 268  
 269  
 270  
 271  
 272  
 273  
 274  
 275  
 276  
 277  
 278  
 279  
 280  
 281  
 282  
 283  
 284  
 285  
 286  
 287  
 288  
 289  
 290  
 291  
 292  
 293  
 294  
 295  
 296  
 297  
 298  
 299  
 300  
 301  
 302  
 303  
 304  
 305  
 306  
 307  
 308  
 309  
 310  
 311  
 312  
 313  
 314  
 315  
 316  
 317  
 318  
 319  
 320  
 321  
 322  
 323  
 324  
 325  
 326  
 327  
 328  
 329  
 330  
 331  
 332  
 333  
 334  
 335  
 336  
 337  
 338  
 339  
 340  
 341  
 342  
 343  
 344  
 345  
 346  
 347  
 348  
 349  
 350  
 351  
 352  
 353  
 354  
 355  
 356  
 357  
 358  
 359  
 360  
 361  
 362  
 363  
 364  
 365  
 366  
 367  
 368  
 369  
 370  
 371  
 372  
 373  
 374  
 375  
 376  
 377  
 378  
 379  
 380  
 381  
 382  
 383  
 384  
 385  
 386  
 387  
 388  
 389  
 390  
 391  
 392  
 393  
 394  
 395  
 396  
 397  
 398  
 399  
 400  
 401  
 402  
 403  
 404  
 405  
 406  
 407  
 408  
 409  
 410  
 411  
 412  
 413  
 414  
 415  
 416  
 417  
 418  
 419  
 420  
 421  
 422  
 423  
 424  
 425  
 426  
 427  
 428  
 429  
 430  
 431  
 432  
 433  
 434  
 435  
 436  
 437  
 438  
 439  
 440  
 441  
 442  
 443  
 444  
 445  
 446  
 447  
 448  
 449  
 450  
 451  
 452  
 453  
 454  
 455  
 456  
 457  
 458  
 459  
 460  
 461  
 462  
 463  
 464  
 465  
 466  
 467  
 468  
 469  
 470  
 471  
 472  
 473  
 474  
 475  
 476  
 477  
 478  
 479  
 480  
 481  
 482  
 483  
 484  
 485  
 486  
 487  
 488  
 489  
 490  
 491  
 492  
 493  
 494  
 495  
 496  
 497  
 498  
 499  
 500  
 501  
 502  
 503  
 504  
 505  
 506  
 507  
 508  
 509  
 510  
 511  
 512  
 513  
 514  
 515  
 516  
 517  
 518  
 519  
 520  
 521  
 522  
 523  
 524  
 525  
 526  
 527  
 528  
 529  
 530  
 531  
 532  
 533  
 534

LOCATION NUMBER	DEPTH	LEASE	SAMP TYPE	PARENT LOCATION	LOCAL EASTING	LOCAL NORTHING	AMS EASTING	AMS NORTHING	RL TRAV	S COLLECTION METHOD	SIZE-MM	TYPE	QUAL	DESC	SIZE	RT-1	RT-2	ALTN	VEIN	LOBE	SULP	SP-
426705	0.00	0.10 8287	CRG M		M		721445.00	7766730.00	1390.00		Stage III											
			115	AS	<0.1	PPM 115	AS	5	PPM 115	CO	1.3	PPM 115	CU	5.4	PPM 115	MO	13	PPM 115	NI	9.8	PPM	
			115	PS	<0.5	PPM 115	ZN	<0.5	PPM 201	BI	<0.1	PPM 201	SB	0.2	PPM 201	SN	0.5	PPM 201	U	0.03	PPM	
			201	M	0.4	PPM 334	AL	<0.001	PPM													
426706	0.00	0.10 8287	CRG M		M		721450.00	7766755.00	1390.00		Stage III											
			115	AS	0.1	PPM 115	AS	5	PPM 115	CO	1.5	PPM 115	CU	3.8	PPM 115	MO	13	PPM 115	NI	7.6	PPM	
			115	PS	<0.5	PPM 115	ZN	<0.5	PPM 201	BI	0.3	PPM 201	SB	0.4	PPM 201	SN	0.7	PPM 201	U	0.75	PPM	
			201	M	0.3	PPM 334	AL	0.001	PPM													
426707	0.00	0.10 8287	CRG M		M		721440.00	7766710.00	1390.00		Stage III											
			115	AS	<0.1	PPM 115	AS	5	PPM 115	CO	1.5	PPM 115	CU	5.0	PPM 115	MO	12	PPM 115	NI	7.4	PPM	
			115	PS	0.6	PPM 115	ZN	0.5	PPM 201	BI	0.3	PPM 201	SB	0.2	PPM 201	SN	<0.5	PPM 201	U	0.45	PPM	
			201	M	0.3	PPM 334	AL	<0.001	PPM													
426708	0.00	0.10 8287	CRG M		M		721450.00	7766750.00	1390.00		Stage III											
			115	AS	<0.1	PPM 115	AS	5	PPM 115	CO	1.3	PPM 115	CU	2.9	PPM 115	MO	11	PPM 115	NI	7.2	PPM	
			115	PS	<0.5	PPM 115	ZN	<0.5	PPM 201	BI	0.1	PPM 201	SB	0.3	PPM 201	SN	<0.5	PPM 201	U	0.15	PPM	
			201	M	0.4	PPM 334	AL	<0.001	PPM													
426709	0.00	0.10 8287	CRG M		M		721455.00	7766740.00	1390.00		Stage III											
			115	AS	0.1	PPM 115	AS	10	PPM 115	CO	1.3	PPM 115	CU	4.9	PPM 115	MO	12	PPM 115	NI	7.9	PPM	
			115	PS	<0.5	PPM 115	ZN	0.5	PPM 201	BI	0.2	PPM 201	SB	0.3	PPM 201	SN	0.5	PPM 201	U	0.25	PPM	
			201	M	0.3	PPM 334	AL	0.001	PPM													
426710	0.00	0.10 8287	CRG M		M		721440.00	7766735.00	1390.00		Stage III											
			115	AS	<0.1	PPM 115	AS	5	PPM 115	CO	1.5	PPM 115	CU	4.1	PPM 115	MO	11	PPM 115	NI	7.6	PPM	
			115	PS	<0.5	PPM 115	ZN	<0.5	PPM 201	BI	0.1	PPM 201	SB	0.2	PPM 201	SN	0.5	PPM 201	U	0.45	PPM	
			201	M	0.2	PPM 334	AL	<0.001	PPM													
426711	0.00	0.10 8287	CRG M		M		721450.00	7766730.00	1390.00		Stage III											
			115	AS	0.1	PPM 115	AS	10	PPM 115	CO	1.8	PPM 115	CU	16.5	PPM 115	MO	17	PPM 115	NI	13.9	PPM	
			115	PS	<0.5	PPM 115	ZN	1.2	PPM 201	BI	0.3	PPM 201	SB	0.4	PPM 201	SN	0.7	PPM 201	U	0.34	PPM	
			201	M	2.7	PPM 334	AL	0.001	PPM													
426712	0.00	0.10 8287	CRG M		M		721465.00	7766750.00	1390.00		Stage III & sulph casts											
			115	AS	<0.1	PPM 115	AS	5	PPM 115	CO	1.2	PPM 115	CU	10.0	PPM 115	MO	7	PPM 115	NI	8.8	PPM	
			115	PS	<0.5	PPM 115	ZN	<0.5	PPM 201	BI	0.2	PPM 201	SB	0.3	PPM 201	SN	0.7	PPM 201	U	0.21	PPM	
			201	M	2.1	PPM 334	AL	<0.001	PPM													
426713	0.00	0.10 8287	CRG M		M		721460.00	7766730.00	1390.00		Stage III											
			115	AS	0.1	PPM 115	AS	5	PPM 115	CO	1.5	PPM 115	CU	1.8	PPM 115	MO	1.7	PPM 115	NI	12.2	PPM	
			115	PS	<0.5	PPM 115	ZN	0.5	PPM 201	BI	0.1	PPM 201	SB	0.3	PPM 201	SN	0.6	PPM 201	U	0.03	PPM	
			201	M	2.0	PPM 334	AL	0.001	PPM													
426714	0.00	0.10 8287	CRG M		M		721470.00	7766735.00	1390.00		Stage III											
			115	AS	<0.1	PPM 115	AS	5	PPM 115	CO	1.5	PPM 115	CU	1.8	PPM 115	MO	1.7	PPM 115	NI	12.2	PPM	
			115	PS	<0.5	PPM 115	ZN	0.5	PPM 201	BI	0.1	PPM 201	SB	0.3	PPM 201	SN	0.6	PPM 201	U	0.03	PPM	
			201	M	2.0	PPM 334	AL	0.001	PPM													









# NORTH FLINDERS EXPLORATION

RECORD DATABASE

REPORT MFR120 - REPORT SAMPLES & ASSAYS

PRINTED - 10/06/07 11:10:31

Page 11

518287-Sore Tooth North Recon

LOCATION NUMBER	DEPTH	DEPTH LENG	SAMP TYPE	PARENT LOCATION	LOCAL ESTIM	LOCAL TOTAL	QMS	AGE	PL	TRAV	S COLLECTION	SIZE-MN	TYPE	QMS	DESC	SIZE	QT-1	QT-2	ALTA	VEIN	LOPE	RE-1
S. 454065																						
619012	0.00	0.10 8287	QZ	Y	2.2	PPM 334	40	0.001	PPM													
QZ, stage III																						
			115	40	<0.1	PPM 115	45	0.5	PPM 115	00	<0.5	PPM 115	CU	9.2	PPM 115	40	8	PPM 115	NI	13.7	PPM	
			115	P3	<0.5	PPM 115	24	0.7	PPM 201	81	0.5	PPM 201	SB	1.1	PPM 201	SN	0.8	PPM 201	U	0.131	PPM	
619013	0.00	0.10 8287	QZ	Y	2.9	PPM 334	40	<0.001	PPM													
QZ, stage II, grn discoloration																						
			115	45	<0.1	PPM 115	45	5	PPM 115	00	<0.5	PPM 115	CU	10.0	PPM 115	40	10	PPM 115	NI	14.5	PPM	
			115	P2	<0.5	PPM 115	24	0.5	PPM 201	81	0.7	PPM 201	SB	1.1	PPM 201	SN	1.0	PPM 201	U	0.134	PPM	
619014	0.00	0.10 8287	QZ	Y	2.7	PPM 334	40	<0.001	PPM													
QZ, stage I																						
			115	45	<0.1	PPM 115	45	6	PPM 115	00	<0.5	PPM 115	CU	10.3	PPM 115	40	12	PPM 115	NI	17.1	PPM	
			115	P2	<0.5	PPM 115	24	0.7	PPM 201	81	0.2	PPM 201	SB	0.9	PPM 201	SN	1.1	PPM 201	U	0.121	PPM	
619015	0.00	0.10 8287	QZ	Y	3.1	PPM 334	40	<0.001	PPM													
QZ, stage I																						
			115	45	<0.1	PPM 115	45	6	PPM 115	00	<0.5	PPM 115	CU	10.3	PPM 115	40	9	PPM 115	NI	13.1	PPM	
			115	P2	<0.5	PPM 115	24	0.5	PPM 201	81	0.9	PPM 201	SB	0.4	PPM 201	SN	1.0	PPM 201	U	0.150	PPM	
619016	0.00	0.10 8287	QZ	Y	3.1	PPM 334	40	<0.001	PPM													
QZ, stage I																						
			115	45	<0.1	PPM 115	45	5	PPM 115	00	<0.5	PPM 115	CU	9.5	PPM 115	40	5	PPM 115	NI	11.7	PPM	
			115	P2	<0.5	PPM 115	24	0.5	PPM 201	81	0.2	PPM 201	SB	0.5	PPM 201	SN	1.3	PPM 201	U	0.124	PPM	
619017	0.00	0.10 8287	QZ	Y	3.1	PPM 334	40	<0.001	PPM													
QZ, stage I																						
			115	45	<0.1	PPM 115	45	7	PPM 115	00	<0.5	PPM 115	CU	8.1	PPM 115	40	6	PPM 115	NI	10.2	PPM	
			115	P2	<0.5	PPM 115	24	0.5	PPM 201	81	2.9	PPM 201	SB	0.9	PPM 201	SN	1.3	PPM 201	U	0.144	PPM	
619018	0.00	0.10 8287	QZ	Y	2.4	PPM 334	40	<0.001	PPM													
QZ, stage I																						
			115	45	<0.1	PPM 115	45	5	PPM 115	00	<0.5	PPM 115	CU	9.2	PPM 115	40	6	PPM 115	NI	10.1	PPM	
			115	P2	<0.5	PPM 115	24	0.5	PPM 201	81	0.4	PPM 201	SB	0.4	PPM 201	SN	1.0	PPM 201	U	0.150	PPM	
619019	0.00	0.10 8287	QZ	Y	2.6	PPM 334	40	<0.001	PPM													
Crystalline, space-filling q																						
			115	45	<0.1	PPM 115	45	5	PPM 115	00	<0.5	PPM 115	CU	9.8	PPM 115	40	9	PPM 115	NI	13.5	PPM	
			115	P2	<0.5	PPM 115	24	0.5	PPM 201	81	<0.1	PPM 201	SB	0.3	PPM 201	SN	0.7	PPM 201	U	0.109	PPM	
619020	0.00	0.10 8287	QZ	Y	2.7	PPM 334	40	<0.001	PPM													
Crystalline, space-filling q																						
			115	45	<0.1	PPM 115	45	5	PPM 115	00	<0.5	PPM 115	CU	9.8	PPM 115	40	9	PPM 115	NI	13.5	PPM	
			115	P2	<0.5	PPM 115	24	0.5	PPM 201	81	1.9	PPM 201	SB	0.3	PPM 201	SN	1.6	PPM 201	U	0.151	PPM	





[illegible]

REF ID: A66707 PRINTED

U.S. DEPARTMENT OF AGRICULTURE

[illegible][illegible]

## **APPENDIX 5 - LAG SAMPLE DATA, ASSAYS AND LOGS**



REPORTED - 11/06/97 11:40:21

EL9287-3095 South North Record

LOCATION NUMBER	DEPTH	LEASE	SAMPLE TYPE	PARENT LOCATION	LOCAL EASTING	LOCAL NORTHING	AMS	AMS	AVG	RL TRAV	S COLLECTION S METHOD	SIZE-MM	TYPE	QUAL	DESC	SIZE	RT-1	RT-2	ALTN	VEIN	LOBE	SULP	SP-3
3014401	0.00	0.10 8287	L&S M	CU	32	7	PPM AA	FE	22.00	PCT AA	NI	25	PPM AA	T	R	L	F	AS	36	PPM AM	BI	9.5	PPM
			AM	CO	7	PPM AM	MO	3.0	PPM AM	SB	3.0	PPM AM	PB	38	PPM AM	SN	4	PPM AM	U	2.8	PPM		
			AM	M	2	PPM BA	AG	<0.1	PPM BE	AU	1	PPB											
3014402	0.00	0.10 8287	L&S M	CU	35	9	PPM AA	FE	23.50	PCT AA	NI	26	PPM AA	T	R	L	F	AS	42	PPM AM	BI	0.5	PPM
			AM	CO	9	PPM AM	MO	2.5	PPM AM	SB	3.2	PPM AM	PB	32	PPM AM	SN	4	PPM AM	U	2.5	PPM		
			AM	M	2	PPM BA	AG	<0.1	PPM BE	AU	<1	PPB											
3014403	0.00	0.10 8287	L&S M	CU	41	9	PPM AA	FE	24.00	PCT AA	NI	34	PPM AA	T	R	L	F	AS	43	PPM AM	BI	1.0	PPM
			AM	CO	9	PPM AM	MO	2.5	PPM AM	SB	3.8	PPM AM	PB	38	PPM AM	SN	4	PPM AM	U	2.6	PPM		
			AM	M	2	PPM BA	AG	<0.1	PPM BE	AU	<1	PPB											
3014404	0.00	0.10 8287	L&S M	CU	29	9	PPM AA	FE	25.00	PCT AA	NI	30	PPM AA	T	R	L	M	AS	40	PPM AM	BI	1.0	PPM
			AM	CO	9	PPM AM	MO	2.5	PPM AM	SB	3.2	PPM AM	PB	34	PPM AM	SN	4	PPM AM	U	2.4	PPM		
			AM	M	2	PPM BA	AG	<0.1	PPM BE	AU	<1	PPB											
3014405	3.00	0.10 8287	L&S M	CU	24	7	PPM AA	FE	27.50	PCT AA	NI	24	PPM AA	T	R	L	M	AS	40	PPM AM	BI	1.0	PPM
			AM	CO	7	PPM AM	MO	2.5	PPM AM	SB	3.6	PPM AM	PB	35	PPM AM	SN	4	PPM AM	U	2.7	PPM		
			AM	M	2	PPM BA	AG	<0.1	PPM BE	AU	<1	PPB											
3014406	0.00	0.10 8287	L&S M	CU	32	9	PPM AA	FE	25.00	PCT AA	NI	30	PPM AA	T	R	L	M	AS	40	PPM AM	BI	1.0	PPM
			AM	CO	9	PPM AM	MO	2.0	PPM AM	SB	3.2	PPM AM	PB	35	PPM AM	SN	4	PPM AM	U	2.0	PPM		
			AM	M	2	PPM BA	AG	<0.1	PPM BE	AU	<1	PPB											
3014407	0.00	0.10 8287	L&S M	CU	30	9	PPM AA	FE	31.00	PCT AA	NI	28	PPM AA	T	R	L	M	AS	42	PPM AM	BI	1.0	PPM
			AM	CO	9	PPM AM	MO	2.5	PPM AM	SB	3.0	PPM AM	PB	35	PPM AM	SN	4	PPM AM	U	2.2	PPM		
			AM	M	2	PPM BA	AG	<0.1	PPM BE	AU	<1	PPB											
3014408	0.00	0.10 8287	L&S M	CU	30	9	PPM AA	FE	28.00	PCT AA	NI	28	PPM AA	T	R	L	M	AS	40	PPM AM	BI	1.0	PPM
			AM	CO	9	PPM AM	MO	3.0	PPM AM	SB	4.0	PPM AM	PB	35	PPM AM	SN	4	PPM AM	U	2.4	PPM		
			AM	M	2	PPM BA	AG	<0.1	PPM BE	AU	<1	PPB											
3014409	0.00	0.10 8287	L&S M	CU	30	9	PPM AA	FE	29.00	PCT AA	NI	28	PPM AA	T	R	L	M	AS	40	PPM AM	BI	1.0	PPM
			AM	CO	9	PPM AM	MO	3.0	PPM AM	SB	4.0	PPM AM	PB	38	PPM AM	SN	4	PPM AM	U	2.4	PPM		
			AM	M	2	PPM BA	AG	<0.1	PPM BE	AU	1	PPB											
3014410	0.00	0.10 8287	L&S M	CU	35	9	PPM AA	FE	21.50	PCT AA	NI	30	PPM AA	T	R	L	F	AS	36	PPM AM	BI	1.0	PPM
			AM	CO	11	PPM AM	MO	2.5	PPM AM	SB	2.8	PPM AM	PB	40	PPM AM	SN	4	PPM AM	U	2.3	PPM		
			AM	M	2	PPM BA	AG	<0.1	PPM BE	AU	<1	PPB											
3014411	0.00	0.10 8287	L&S M	CU	36	9	PPM AA	FE	29.50	PCT AA	NI	30	PPM AA	T	R	L	M	AS	44	PPM AM	BI	1.0	PPM
			AM	CO	9	PPM AM	MO	3.0	PPM AM	SB	4.0	PPM AM	PB	36	PPM AM	SN	4	PPM AM	U	2.6	PPM		
			AM	M	2	PPM BA	AG	<0.1	PPM BE	AU	<1	PPB											
3014412	0.00	0.10 8287	L&S M	CU	36	9	PPM AA	FE	25.00	PCT AA	NI	32	PPM AA	T	R	L	M	AS	40	PPM AM	BI	1.0	PPM
			AM	CO	9	PPM AM	MO	2.5	PPM AM	SB	3.6	PPM AM	PB	36	PPM AM	SN	4	PPM AM	U	2.6	PPM		
			AM	M	2	PPM BA	AG	<0.1	PPM BE	AU	<1	PPB											



## EL8082-Sore Tools North Bedrock

LOCATION NUMBER	DEPTH	DEPTH	LEAST	SIMP PARENT TYPE LOCATION	LOCAL EASTING	LOCAL NORTHING	AMS EASTING	AMS NORTHING	RL TRAV	S COLLECTION S METHOD	SIZE-M	TYPE	QUAL	DESC	SIZE	RT-1	RT-2	ALTN	VEIN	LOBE	SULP	SP-3
3014424	0.00	0.10 8287	L48	AA	CU	31	FE	774573.00	774573.00	1390.00	NI	24	PPM AA	+2	T	2N	25	L	F			
				AA	CU	32	FE	774573.00	774573.00	1390.00	NI	24	PPM AA	+2	T	2N	25	L	F			
				AA	CU	33	FE	774573.00	774573.00	1390.00	NI	24	PPM AA	+2	T	2N	25	L	F			
				AA	CU	34	FE	774573.00	774573.00	1390.00	NI	24	PPM AA	+2	T	2N	25	L	F			
3014425	0.00	0.10 8287	L48	AA	CU	35	FE	774573.00	774573.00	1390.00	NI	24	PPM AA	+2	T	2N	25	L	F			
				AA	CU	36	FE	774573.00	774573.00	1390.00	NI	24	PPM AA	+2	T	2N	25	L	F			
				AA	CU	37	FE	774573.00	774573.00	1390.00	NI	24	PPM AA	+2	T	2N	25	L	F			
				AA	CU	38	FE	774573.00	774573.00	1390.00	NI	24	PPM AA	+2	T	2N	25	L	F			
3014426	0.00	0.10 8287	L48	AA	CU	39	FE	774573.00	774573.00	1390.00	NI	24	PPM AA	+2	T	2N	25	L	F			
				AA	CU	40	FE	774573.00	774573.00	1390.00	NI	24	PPM AA	+2	T	2N	25	L	F			
				AA	CU	41	FE	774573.00	774573.00	1390.00	NI	24	PPM AA	+2	T	2N	25	L	F			
				AA	CU	42	FE	774573.00	774573.00	1390.00	NI	24	PPM AA	+2	T	2N	25	L	F			
3014427	0.00	0.10 8287	L48	AA	CU	43	FE	774573.00	774573.00	1390.00	NI	24	PPM AA	+2	T	2N	25	L	F			
				AA	CU	44	FE	774573.00	774573.00	1390.00	NI	24	PPM AA	+2	T	2N	25	L	F			
				AA	CU	45	FE	774573.00	774573.00	1390.00	NI	24	PPM AA	+2	T	2N	25	L	F			
				AA	CU	46	FE	774573.00	774573.00	1390.00	NI	24	PPM AA	+2	T	2N	25	L	F			
3014428	0.00	0.10 8287	L48	AA	CU	47	FE	774573.00	774573.00	1390.00	NI	24	PPM AA	+2	T	2N	25	L	F			
				AA	CU	48	FE	774573.00	774573.00	1390.00	NI	24	PPM AA	+2	T	2N	25	L	F			
				AA	CU	49	FE	774573.00	774573.00	1390.00	NI	24	PPM AA	+2	T	2N	25	L	F			
				AA	CU	50	FE	774573.00	774573.00	1390.00	NI	24	PPM AA	+2	T	2N	25	L	F			
3014429	0.00	0.10 8287	L48	AA	CU	51	FE	774573.00	774573.00	1390.00	NI	24	PPM AA	+2	T	2N	25	L	F			
				AA	CU	52	FE	774573.00	774573.00	1390.00	NI	24	PPM AA	+2	T	2N	25	L	F			
				AA	CU	53	FE	774573.00	774573.00	1390.00	NI	24	PPM AA	+2	T	2N	25	L	F			
				AA	CU	54	FE	774573.00	774573.00	1390.00	NI	24	PPM AA	+2	T	2N	25	L	F			
3014430	0.00	0.10 8287	L48	AA	CU	55	FE	774573.00	774573.00	1390.00	NI	24	PPM AA	+2	T	2N	25	L	F			
				AA	CU	56	FE	774573.00	774573.00	1390.00	NI	24	PPM AA	+2	T	2N	25	L	F			
				AA	CU	57	FE	774573.00	774573.00	1390.00	NI	24	PPM AA	+2	T	2N	25	L	F			
				AA	CU	58	FE	774573.00	774573.00	1390.00	NI	24	PPM AA	+2	T	2N	25	L	F			
3014431	0.00	0.10 8287	L48	AA	CU	59	FE	774573.00	774573.00	1390.00	NI	24	PPM AA	+2	T	2N	25	L	F			
				AA	CU	60	FE	774573.00	774573.00	1390.00	NI	24	PPM AA	+2	T	2N	25	L	F			
				AA	CU	61	FE	774573.00	774573.00	1390.00	NI	24	PPM AA	+2	T	2N	25	L	F			
				AA	CU	62	FE	774573.00	774573.00	1390.00	NI	24	PPM AA	+2	T	2N	25	L	F			
3014432	0.00	0.10 8287	L48	AA	CU	63	FE	774573.00	774573.00	1390.00	NI	24	PPM AA	+2	T	2N	25	L	F			
				AA	CU	64	FE	774573.00	774573.00	1390.00	NI	24	PPM AA	+2	T	2N	25	L	F			
				AA	CU	65	FE	774573.00	774573.00	1390.00	NI	24	PPM AA	+2	T	2N	25	L	F			
				AA	CU	66	FE	774573.00	774573.00	1390.00	NI	24	PPM AA	+2	T	2N	25	L	F			
3014433	0.00	0.10 8287	L48	AA	CU	67	FE	774573.00	774573.00	1390.00	NI	24	PPM AA	+2	T	2N	25	L	F			
				AA	CU	68	FE	774573.00	774573.00	1390.00	NI	24	PPM AA	+2	T	2N	25	L	F			
				AA	CU	69	FE	774573.00	774573.00	1390.00	NI	24	PPM AA	+2	T	2N	25	L	F			
				AA	CU	70	FE	774573.00	774573.00	1390.00	NI	24	PPM AA	+2	T	2N	25	L	F			
3014434	0.00	0.10 8287	L48	AA	CU	71	FE	774573.00	774573.00	1390.00	NI	24	PPM AA	+2	T	2N	25	L	F			
				AA	CU	72	FE	774573.00	774573.00	1390.00	NI	24	PPM AA	+2	T	2N	25	L	F			
				AA	CU	73	FE	774573.00	774573.00	1390.00	NI	24	PPM AA	+2	T	2N	25	L	F			
				AA	CU	74	FE	774573.00	774573.00	1390.00	NI	24	PPM AA	+2	T	2N	25	L	F			
3014435	0.00	0.10 8287	L48	AA	CU	75	FE	774573.00	774573.00	1390.00	NI	24	PPM AA	+2	T	2N	25	L	F			
				AA	CU	76	FE	774573.00	774573.00	1390.00	NI	24	PPM AA	+2	T	2N	25	L	F			
				AA	CU	77	FE	774573.00	774573.00	1390.00	NI	24	PPM AA	+2	T	2N	25	L	F			
				AA	CU	78	FE	774573.00	774573.00	1390.00	NI	24	PPM AA	+2	T	2N	25	L	F			

EL0227-Sore Tooth North Pattern

LOCATION NUMBER	DEPTH	LEASE	SAMP TYPE	PARENT LOCATION	LOCAL ESSAY	LOCAL ANAL	ANAL METHOD	ANAL DATE	RL TRAV S METHOD	SIZE-MM	TYPE	DUAL	DESC	SIZE	RT-1	RT-2	ALTN	VEIN	LODE	SULP	SP-3
3014435	0.00	0.10 8287	AS	CU	10	PPM	AS	2.0	PPM	AS	30	PPM	AS	5K	2	PPM	AS	U	4.2	PPM	
			AS	Y	1	PPM	AS	0.1	PPM	SE	40	PPM	SE								
			AS	CU	15	PPM	AS	8.20	PCT	AS	14	PPM	AS	AS	18	PPM	AS	BI	0.5	PPM	
			AS	CU	4	PPM	AS	1.0	PPM	AS	24	PPM	AS	EN	1	PPM	AS	U	1.9	PPM	
			AS	W	1	PPM	AS	0.1	PPM	SE	40	PPM	SE								
3014437	0.00	0.10 8287	LAS	M	1	PPM	AS	0.1	PPM	SE	40	PPM	SE								
			AS	CU	5	PPM	AS	1.40	PCT	AS	14	PPM	AS	AS	2	PPM	AS	BI	0.5	PPM	
			AS	CU	1	PPM	AS	0.5	PPM	AS	6	PPM	AS	EN	1	PPM	AS	U	0.2	PPM	
			AS	W	1	PPM	AS	0.1	PPM	SE	40	PPM	SE								
			LAS	M	1	PPM	AS	0.1	PPM	SE	40	PPM	SE								
3014438	0.00	0.10 8287	LAS	M	1	PPM	AS	0.1	PPM	SE	40	PPM	SE								
			AS	CU	3	PPM	AS	0.92	PCT	AS	14	PPM	AS	AS	2	PPM	AS	BI	0.5	PPM	
			AS	CU	1	PPM	AS	0.5	PPM	AS	6	PPM	AS	EN	1	PPM	AS	U	0.1	PPM	
			AS	W	1	PPM	AS	0.1	PPM	SE	40	PPM	SE								
			LAS	M	1	PPM	AS	0.1	PPM	SE	40	PPM	SE								
3014439	0.00	0.10 8287	LAS	M	1	PPM	AS	0.1	PPM	SE	40	PPM	SE								
			AS	CU	5	PPM	AS	1.25	PCT	AS	14	PPM	AS	AS	2	PPM	AS	BI	0.5	PPM	
			AS	CU	1	PPM	AS	1.0	PPM	AS	6	PPM	AS	EN	1	PPM	AS	U	0.1	PPM	
			AS	W	1	PPM	AS	0.1	PPM	SE	40	PPM	SE								
			LAS	M	1	PPM	AS	0.1	PPM	SE	40	PPM	SE								
3014440	0.00	0.10 8287	LAS	M	1	PPM	AS	0.1	PPM	SE	40	PPM	SE								
			AS	CU	5	PPM	AS	0.99	PCT	AS	14	PPM	AS	AS	2	PPM	AS	BI	0.5	PPM	
			AS	CU	1	PPM	AS	0.5	PPM	AS	6	PPM	AS	EN	1	PPM	AS	U	0.1	PPM	
			AS	W	1	PPM	AS	0.1	PPM	SE	40	PPM	SE								
			LAS	M	1	PPM	AS	0.1	PPM	SE	40	PPM	SE								
3014441	0.00	0.10 8287	LAS	M	1	PPM	AS	0.1	PPM	SE	40	PPM	SE								
			AS	CU	5	PPM	AS	1.02	PCT	AS	14	PPM	AS	AS	2	PPM	AS	BI	0.5	PPM	
			AS	CU	1	PPM	AS	0.5	PPM	AS	6	PPM	AS	EN	1	PPM	AS	U	0.1	PPM	
			AS	W	1	PPM	AS	0.1	PPM	SE	40	PPM	SE								
			LAS	M	1	PPM	AS	0.1	PPM	SE	40	PPM	SE								
3014442	0.00	0.10 8287	LAS	M	1	PPM	AS	0.1	PPM	SE	40	PPM	SE								
			AS	CU	5	PPM	AS	0.99	PCT	AS	14	PPM	AS	AS	2	PPM	AS	BI	0.5	PPM	
			AS	CU	1	PPM	AS	0.5	PPM	AS	6	PPM	AS	EN	1	PPM	AS	U	0.1	PPM	
			AS	W	1	PPM	AS	0.1	PPM	SE	40	PPM	SE								
			LAS	M	1	PPM	AS	0.1	PPM	SE	40	PPM	SE								
3014443	0.00	0.10 8287	LAS	M	1	PPM	AS	0.1	PPM	SE	40	PPM	SE								
			AS	CU	5	PPM	AS	0.80	PCT	AS	14	PPM	AS	AS	2	PPM	AS	BI	0.5	PPM	
			AS	CU	1	PPM	AS	0.5	PPM	AS	6	PPM	AS	EN	1	PPM	AS	U	0.1	PPM	
			AS	W	1	PPM	AS	0.1	PPM	SE	40	PPM	SE								
			LAS	M	1	PPM	AS	0.1	PPM	SE	40	PPM	SE								
3014444	0.00	0.10 8287	LAS	M	1	PPM	AS	0.1	PPM	SE	40	PPM	SE								
			AS	CU	5	PPM	AS	0.99	PCT	AS	14	PPM	AS	AS	2	PPM	AS	BI	0.5	PPM	
			AS	CU	1	PPM	AS	0.5	PPM	AS	6	PPM	AS	EN	1	PPM	AS	U	0.1	PPM	
			AS	W	1	PPM	AS	0.1	PPM	SE	40	PPM	SE								
			LAS	M	1	PPM	AS	0.1	PPM	SE	40	PPM	SE								
3014445	0.00	0.10 8287	LAS	M	1	PPM	AS	0.1	PPM	SE	40	PPM	SE								
			AS	CU	5	PPM	AS	1.12	PCT	AS	14	PPM	AS	AS	2	PPM	AS	BI	0.5	PPM	
			AS	CU	1	PPM	AS	0.5	PPM	AS	6	PPM	AS	EN	1	PPM	AS	U	0.1	PPM	
			AS	W	1	PPM	AS	0.1	PPM	SE	40	PPM	SE								
			LAS	M	1	PPM	AS	0.1	PPM	SE	40	PPM	SE								
3014446	0.00	0.10 8287	LAS	M	1	PPM	AS	0.1	PPM	SE	40	PPM	SE								
			AS	CU	5	PPM	AS	0.92	PCT	AS	14	PPM	AS	AS	2	PPM	AS	BI	0.5	PPM	
			AS	CU	1	PPM	AS	0.5	PPM	AS	6	PPM	AS	EN	1	PPM	AS	U	0.1	PPM	
			AS	W	1	PPM	AS	0.1	PPM	SE	40	PPM	SE								
			LAS	M	1	PPM	AS	0.1	PPM	SE	40	PPM	SE								



Element-Same Tactile North Record

LOCATION NUMBER	DEPTH	DEPTH	LEASE	SAMP POINT TYPE LOCATION	LOCAL EASTING	LOCAL NORTHING	AMS	AMS	AMS	RL TRAV	S COLLECTION	SIZE-M	TYPE	RUAL	DESS	SIZE	RT-1	RT-2	ALTN	VEIN	LODE	SULP	SP-3
3014459	0.00	0.10	8287	24	00	01	PPM	44	03	0.5	PPM	AT	PS	2	PPM	AM	SN	1	PPM	AM	U	0.2	PPM
				24	N	1	PPM	52	AS	10.1	PPM	SE	AU	1	PPM								
				24	DU	37	PPM	44	FE	24.00	PCT	SA	N1	25	PPM	AM	AS	44	PPM	AM	BI	2.5	PPM
				24	CC	5	PPM	AM	MO	1.0	PPM	AM	PS	25	PPM	AM	SN	7	PPM	AM	U	8.2	PPM
				24	N	5	PPM	BA	A3	0.1	PPM	SE	AU	1	PPM								
3014460	0.00	0.10	8287	24	N	1	PPM	44	FE	24.00	PCT	SA	N1	4	PPM	AM	AS	2	PPM	AM	BI	0.5	PPM
				24	DU	6	PPM	AM	MO	0.5	PPM	AM	PS	2	PPM	AM	SN	1	PPM	AM	U	0.1	PPM
				24	CC	1	PPM	AM	MO	0.5	PPM	AM	PS	2	PPM	AM	SN	1	PPM	AM	U	0.1	PPM
				24	N	1	PPM	BA	A3	0.1	PPM	SE	AU	1	PPM								
				24	N	1	PPM	BA	A3	0.1	PPM	SE	AU	1	PPM								
3014461	0.00	0.10	8287	24	N	1	PPM	44	FE	24.00	PCT	SA	N1	16	PPM	AM	AS	24	PPM	AM	BI	1.0	PPM
				24	DU	18	PPM	44	FE	24.00	PCT	SA	N1	16	PPM	AM	AS	24	PPM	AM	BI	1.0	PPM
				24	CC	5	PPM	44	FE	24.00	PCT	SA	N1	16	PPM	AM	AS	24	PPM	AM	BI	1.0	PPM
				24	N	2	PPM	44	FE	24.00	PCT	SA	N1	16	PPM	AM	AS	24	PPM	AM	BI	1.0	PPM
				24	N	2	PPM	44	FE	24.00	PCT	SA	N1	16	PPM	AM	AS	24	PPM	AM	BI	1.0	PPM
3014462	0.00	0.10	8287	24	N	1	PPM	44	FE	24.00	PCT	SA	N1	16	PPM	AM	AS	24	PPM	AM	BI	1.0	PPM
				24	DU	18	PPM	44	FE	24.00	PCT	SA	N1	16	PPM	AM	AS	24	PPM	AM	BI	1.0	PPM
				24	CC	5	PPM	44	FE	24.00	PCT	SA	N1	16	PPM	AM	AS	24	PPM	AM	BI	1.0	PPM
				24	N	2	PPM	44	FE	24.00	PCT	SA	N1	16	PPM	AM	AS	24	PPM	AM	BI	1.0	PPM
				24	N	2	PPM	44	FE	24.00	PCT	SA	N1	16	PPM	AM	AS	24	PPM	AM	BI	1.0	PPM
3014463	0.00	0.10	8287	24	N	1	PPM	44	FE	24.00	PCT	SA	N1	16	PPM	AM	AS	24	PPM	AM	BI	1.0	PPM
				24	DU	18	PPM	44	FE	24.00	PCT	SA	N1	16	PPM	AM	AS	24	PPM	AM	BI	1.0	PPM
				24	CC	5	PPM	44	FE	24.00	PCT	SA	N1	16	PPM	AM	AS	24	PPM	AM	BI	1.0	PPM
				24	N	2	PPM	44	FE	24.00	PCT	SA	N1	16	PPM	AM	AS	24	PPM	AM	BI	1.0	PPM
				24	N	2	PPM	44	FE	24.00	PCT	SA	N1	16	PPM	AM	AS	24	PPM	AM	BI	1.0	PPM
3014464	0.00	0.10	8287	24	N	1	PPM	44	FE	24.00	PCT	SA	N1	16	PPM	AM	AS	24	PPM	AM	BI	1.0	PPM
				24	DU	18	PPM	44	FE	24.00	PCT	SA	N1	16	PPM	AM	AS	24	PPM	AM	BI	1.0	PPM
				24	CC	5	PPM	44	FE	24.00	PCT	SA	N1	16	PPM	AM	AS	24	PPM	AM	BI	1.0	PPM
				24	N	2	PPM	44	FE	24.00	PCT	SA	N1	16	PPM	AM	AS	24	PPM	AM	BI	1.0	PPM
				24	N	2	PPM	44	FE	24.00	PCT	SA	N1	16	PPM	AM	AS	24	PPM	AM	BI	1.0	PPM

## APPENDIX 6 - RAB DRILL HOLE DATA

PRINTED : 16/09/97 14:31

PAGE : 1

LOCATION CODE	PARENT LOCATION	LEASE TYPE	LOCAL EASTING	LOCAL NORTHING	ANG EASTING	ANG NORTHING	REDUCED LEVEL (SOUTH)	LONGITUDE	TRVSR NUMBER	ORIGIN EASTING	ORIGIN NORTHING	BREAKING	DIST START DATE	PCORE DATE	CURE DATE	FINISH DATE	PCORE DEPTH	TOTAL DEPTH	TOP AZI	TOP DEC	
SNR8001	M	8287 RAB	M	M	M	743000.00	7743300.00	1390.00	M	M	M	M	M	M	M	M	07/09/97 3086001-019 (DSL 3010601 VBCL 426901)	M	60.00	180.00	-60.00
SNR8002	M	8287 RAB	M	M	M	743000.00	7745000.00	1390.00	M	M	M	M	M	M	M	M	08/09/97 3086020-031 (DSL 3010602 VBCL 426902)	M	39.00	180.00	-60.00
SNR8003	M	8287 RAB	M	M	M	743000.00	7746000.00	1390.00	M	M	M	M	M	M	M	M	08/09/97 3086032-045 (DSL 3010603 VBCL 426903)	M	46.00	180.00	-60.00
SNR8004	M	8287 RAB	M	M	M	743000.00	7749500.00	1390.00	M	M	M	M	M	M	M	M	08/09/97 3086046-059 (DSL 3010604 VBCL 426904)	M	48.00	180.00	-60.00
SNR8005	M	8287 RAB	M	M	M	741000.00	7751000.00	1390.00	M	M	M	M	M	M	M	M	08/09/97 3086060-068 (DSL 3010605 VBCL 426905)	M	31.00	0.00	-60.00
SNR8006	M	8287 RAB	M	M	M	741000.00	7746200.00	1390.00	M	M	M	M	M	M	M	M	08/09/97 3086069-091 (DSL 3010606 VBCL 426906)	M	72.00	0.00	-60.00
SNR8007	M	8287 RAB	M	M	M	741000.00	7745700.00	1390.00	M	M	M	M	M	M	M	M	08/09/97 3086092-103 (DSL 3010607 VBCL 426907)	M	40.00	0.00	-60.00
SNR8008	M	8287 RAB	M	M	M	741000.00	7745000.00	1390.00	M	M	M	M	M	M	M	M	09/09/97 3086104-117 (DSL 3010608 VBCL 426908)	M	45.00	0.00	-60.00
SNR8009	M	8287 RAB	M	M	M	741000.00	7743000.00	1390.00	M	M	M	M	M	M	M	M	09/09/97 3086118-137 (DSL 3010609 VBCL 426909)	M	63.00	0.00	-60.00
SNR8010	M	8287 RAB	M	M	M	739000.00	7743300.00	1390.00	M	M	M	M	M	M	M	M	09/09/97 3086138-150 (DSL 3010610 VBCL 426910)	M	42.00	180.00	-60.00
SNR8011	M	8287 RAB	M	M	M	739000.00	7745000.00	1390.00	M	M	M	M	M	M	M	M	09/09/97 3086151-156 (DSL 3010611 VBCL 426911)	M	21.00	180.00	-60.00
SNR8012	M	8287 RAB	M	M	M	739000.00	7745300.00	1390.00	M	M	M	M	M	M	M	M	09/09/97 3086157-165 (DSL 3010612 VBCL 426912)	M	30.00	180.00	-60.00
SNR8013	M	8287 RAB	M	M	M	739000.00	7745600.00	1390.00	M	M	M	M	M	M	M	M	09/09/97 3086166-174 (DSL 3010613 VBCL 426913)	M	30.00	180.00	-60.00
SNR8014	M	8287 RAB	M	M	M	739000.00	7746200.00	1390.00	M	M	M	M	M	M	M	M	09/09/97 3086175-182 (DSL 3010614 VBCL 426914)	M	28.00	180.00	-60.00
SNR8015	M	8287 RAB	M	M	M	739000.00	7751500.00	1390.00	M	M	M	M	M	M	M	M	09/09/97 3086183-201 (DSL 3010615 VBCL 426915)	M	61.00	180.00	-60.00
SNR8016	M	8287 RAB	M	M	M	737000.00	7751500.00	1390.00	M	M	M	M	M	M	M	M	10/09/97 3086202-215 (DSL 3010616 VBCL 426916)	M	46.00	0.00	-60.00
SNR8017	M	8287 RAB	M	M	M	737000.00	7746600.00	1390.00	M	M	M	M	M	M	M	M	10/09/97 3086216-230 (DSL 3010617 VBCL 426917)	M	49.00	0.00	-60.00
SNR8018	M	8287 RAB	M	M	M	737000.00	7746000.00	1390.00	M	M	M	M	M	M	M	M	10/09/97 3086231-246 (DSL 3010618 VBCL 426918)	M	52.00	0.00	-60.00
SNR8019	M	8287 RAB	M	M	M	737000.00	7745400.00	1390.00	M	M	M	M	M	M	M	M	10/09/97 3086247-262 (DSL 3010619 VBCL 426919)	M	52.00	0.00	-60.00
SNR8020	M	8287 RAB	M	M	M	737000.00	7743300.00	1390.00	M	M	M	M	M	M	M	M	10/09/97 3086263-278 (DSL 3010620 VBCL 426920)	M	52.00	0.00	-60.00