

SIROCCO RESOURCES NL  
MOUNT BUNDEY PROJECT

Relinquishment report for Eastern Block of EL 9161

[Excluding Mineral Lease Application Area]

by

D.J.Catherall

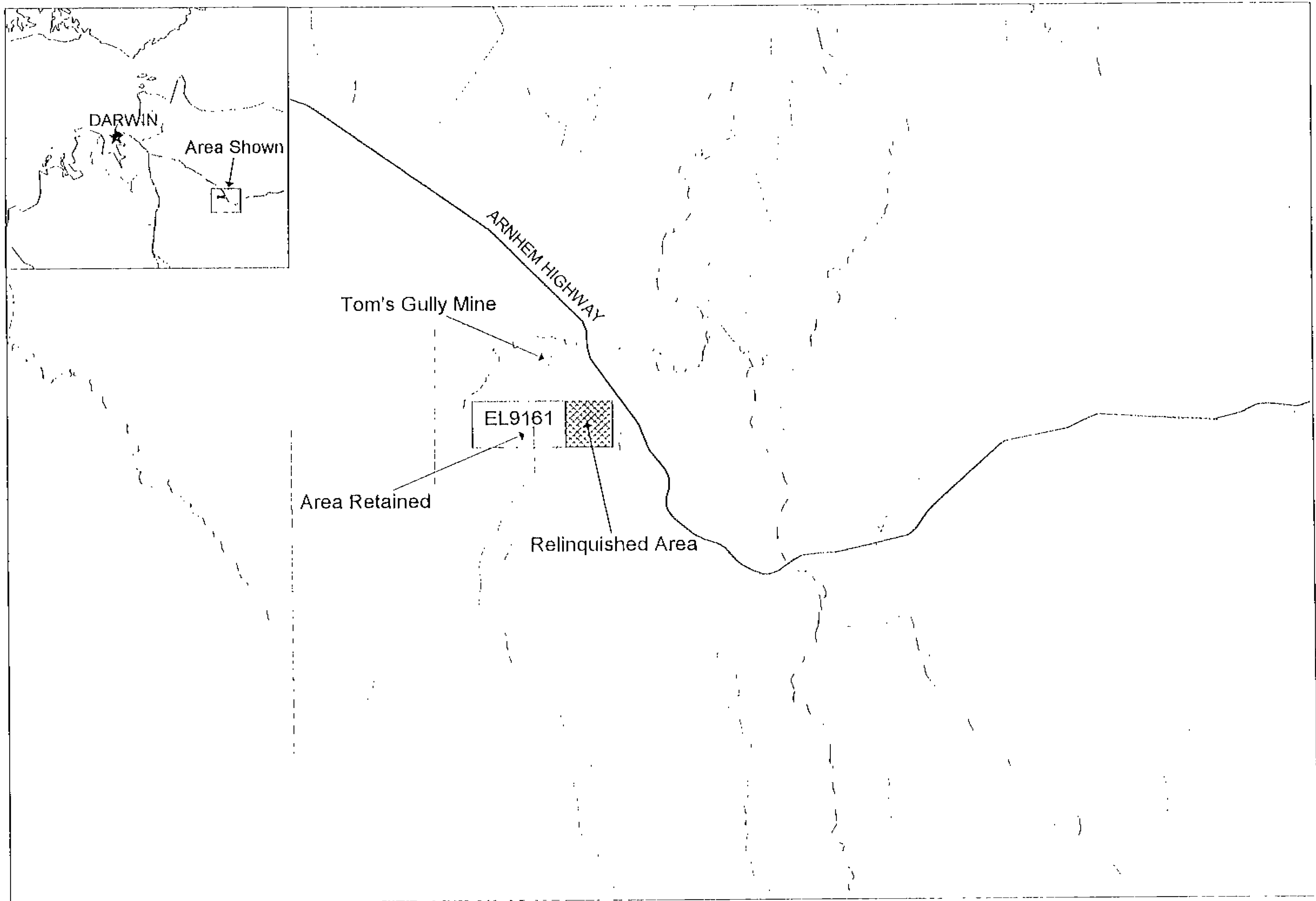
Dated:- 30<sup>th</sup> August 1998

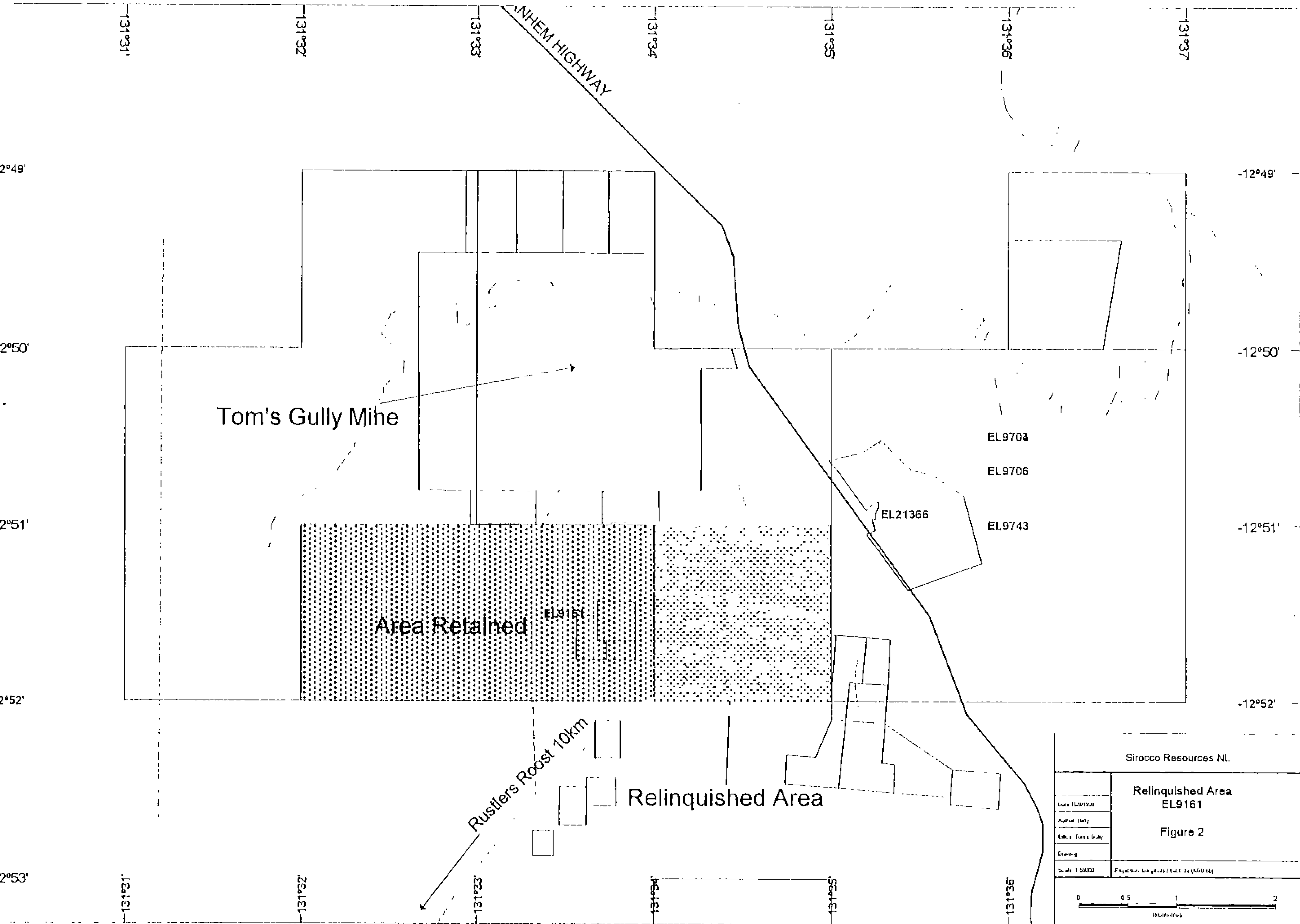
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Sirocco Resources NL						
<table border="1"> <tr> <td>Date: 15/01/2000</td> </tr> <tr> <td>Author: [blank]</td> </tr> <tr> <td>Editor: [blank]</td> </tr> <tr> <td>Drawn: [blank]</td> </tr> <tr> <td>Scale: 1:50000</td> </tr> </table>	Date: 15/01/2000	Author: [blank]	Editor: [blank]	Drawn: [blank]	Scale: 1:50000	<p><b>Relinquished Area</b> <b>EL9161</b></p> <p><b>Figure 2</b></p>
Date: 15/01/2000						
Author: [blank]						
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Drawn: [blank]						
Scale: 1:50000						
<p>Projection: UTM Zone 54S (GDA94)</p>						
<p>0 0.5 1 2</p> <p>Kilometres</p>						

## **ABSTRACT**

EL9161 was explored by geological reconnaissance, power auger sampling, and shallow Rab drilling for gold and silver mineralisation.

A mineralised area located by aeromagnetics was confirmed by field mapping, and followed up by a sampling and drilling programme.

A 40 hectare mineral claim has been applied for to encompass the mineral anomaly, and the remainder of the eastern sub-block of EL9161 has been relinquished.

## **INTRODUCTION**

Kakadu Resources NL were granted EL 9161 on the 2<sup>nd</sup> August 1995 for a six year period.

Sirocco Resources NL acquired the property from Kakadu along with their other assets, and listed on the Australian Stock Exchange the 20<sup>th</sup> of December 1996.

Recapitalisation of the company was completed on the 5<sup>th</sup> of June 1997, and exploration of it's mining tenements started immediately in EL9161 by Rab drilling a known aeromag anomaly. This was followed by an auger traverse across the three sub-blocks, which resulted in the definition of two anomalous gold areas.

A mineral claim has been applied over the first aeromag anomaly, and the second zone appears to be related to an extension of the Tom's Gully mine Crabb Fault. Further geochemical work is required over both of these areas.

## **LOCATION AND ACCESS**

The area is located approximately 85 kms southeast of Darwin along the Arnhem Highway, and can be accessed from the Highway via the Rustler's Roost road, or by station track from Tom's Gully.

Access from the Arnhem Highway is all-weather and maintained by the Boral quarry which is located in EL9161 on EMLNs 59, 66 and EMPN 284.

## **TENURE**

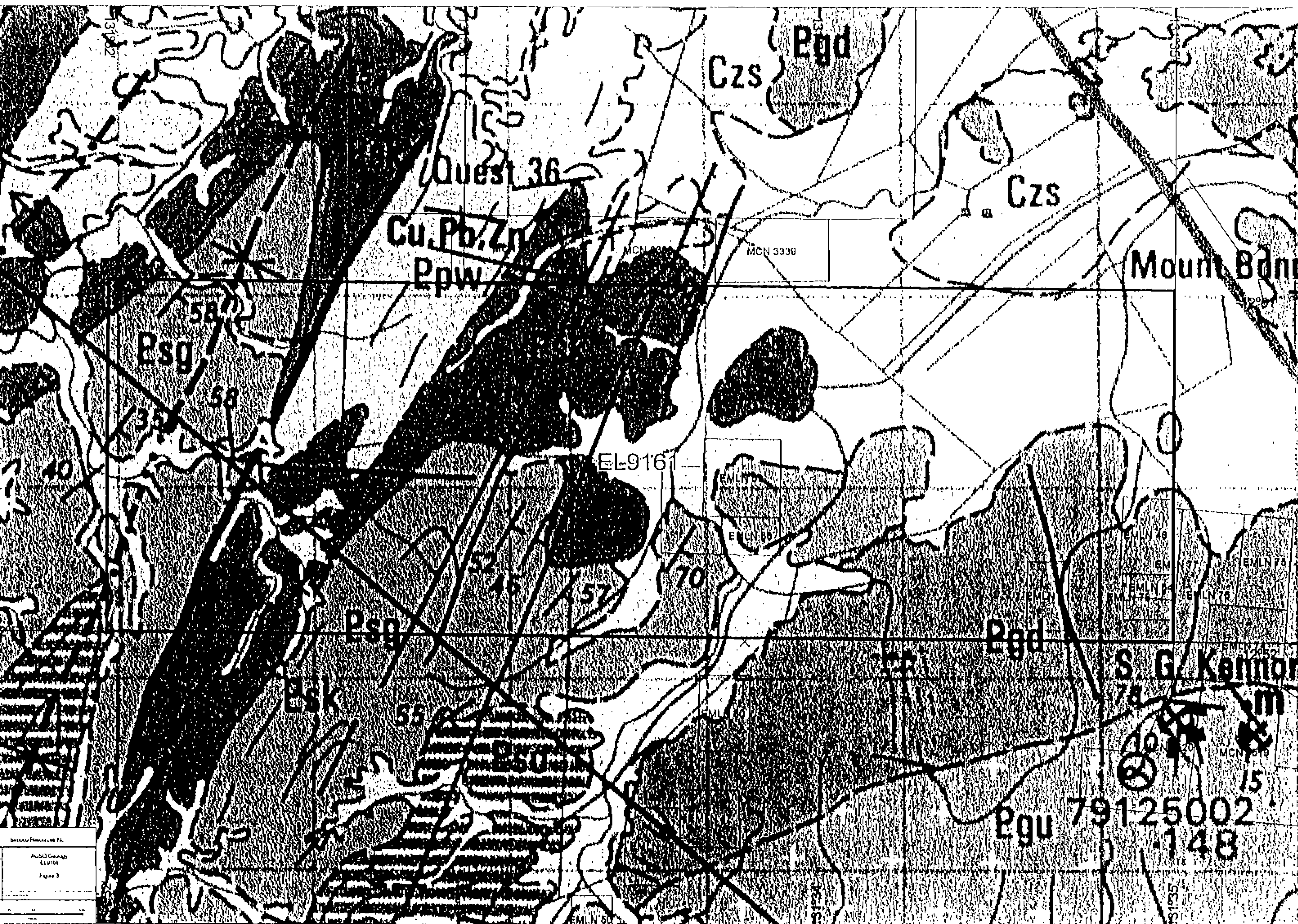
The licence area covers three blocks bounded by longitudes 131-32 and 131-35, and latitudes 12-51 and 12-52. THE EASTERN BLOCK to be relinquished has the coordinates 131-34 /12-51, 131-35/12-51, 131-34/12-52 and 131-35/12-52.

Excluded from the relinquished eastern block is a 40 hectare mineral claim pegged on the 24th August 1998.

The area was granted for a period of 6 years from 2<sup>nd</sup> August 1995.

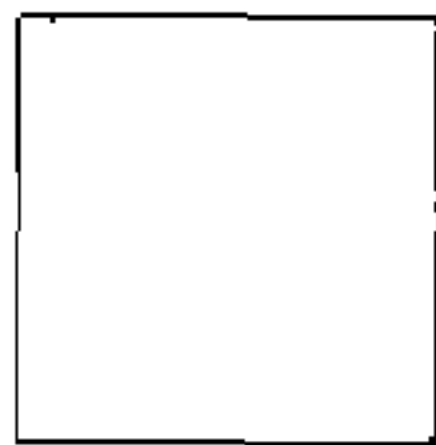
## **GEOLOGY**







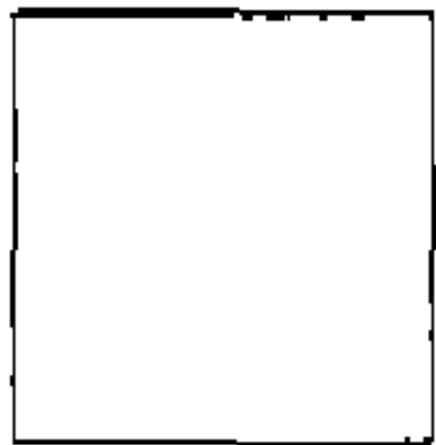
# Geological Legend



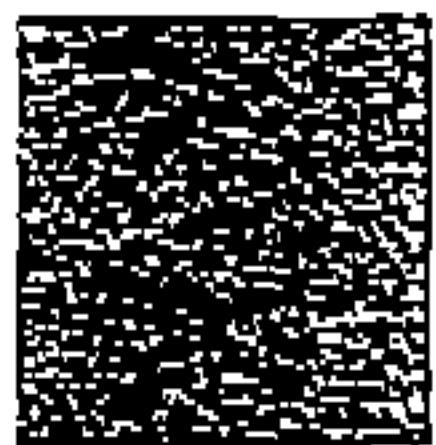
Qa  
Black Soil



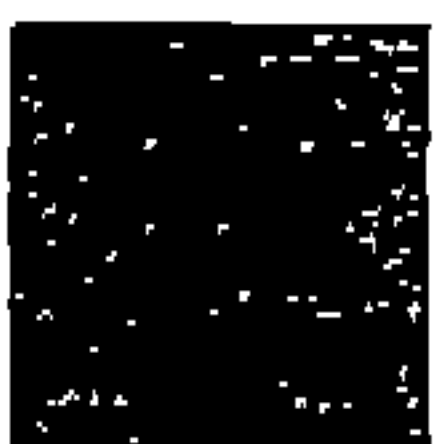
Pso  
Mount Bonnie Formation



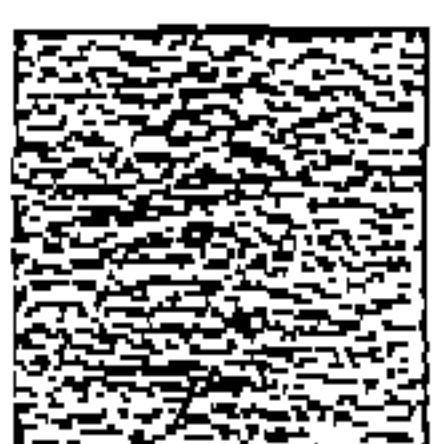
Cz  
Cainozoic



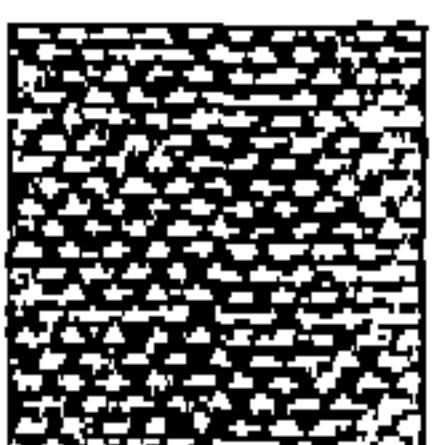
Psk  
Koolpin Formation



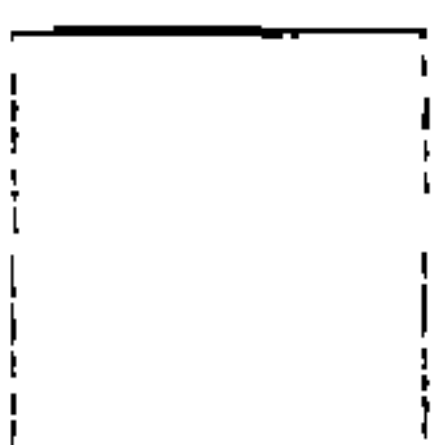
Pgd  
Mount Goyder Syenite



Psg  
Gerowie Tuff



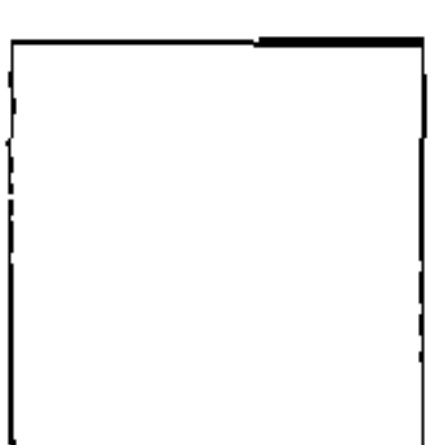
Pgu  
Mount Bunday Granite



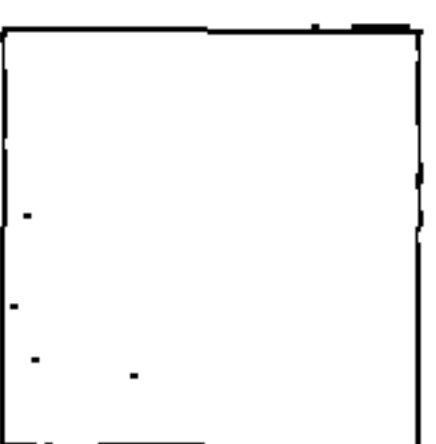
Ppw  
Wildman Siltstone



Pdz  
Zamu Dolerite



Ppm  
Mundogie Sandstone



Pfb  
Burrell Creek Formation

EL9161 is located in the north central part of the Pine Creek geosyncline of Early Proterozoic metasediments of the Mount Partridge and South Alligator Groups. Within these Groups the Wildman Siltstone which hosts the Tom's Gully gold deposit, and the Koolpin Formation that hosts the gold prospect at Quest 29 are both prospective for gold and are present in EL9161.

Regional deformation causing tight to isoclinal folding, and the intrusion of pre-orogenic sills of Zamu Dolerite took place at the end of the Lower Proterozoic. These events were accompanied by mostly greenschist metamorphism.

Late syn-orogenic to post-orogenic granites [ Mt Bunday Granite and Mt Goyder Syenite] were intruded around 1840 to 1800 my, with associated lamprophyre dykes. This has led to increased hornfels metamorphism in the sediments adjacent to the granite contact.

There also appears to be evidence for a mineralisation halo of lead/silver to gold away from the granite contact.

As a result of these tectonic events structural deformation is complex, and further complicated where there are interbedded variations in competency within the metasediments, ie. where there are alternating soft carbonaceous shales and hard arenaceous siltstones.

## **PREVIOUS EXPLORATION**

The early explorationists targetted the area primarily for uranium, and carried out regional airborne radiometric and magnetic surveys. These included Australian Geophysical [1969-1971], Geopeko Limited Gondwana Project in the mid 70's, Comalco [1975], Occidental [1974-1979], and Acquitaine [1980's]

Geopeko had located base metal mineralisation at Quest 29 and joint ventured some of their tenements to Carpentaria Exploration.

Carpentaria Exploration in 1986 in EL4927 located from a stream sediment in Mount Bundy Creek the Tom's Gully goldmine, which is located 2 km from the northern boundary of EL9161.

## **MAPPING**

Reconnaissance geological mapping showed the Wildman Siltstone outcropping in the western and central blocks of EL9161, with black soil cover over most of the relinquished eastern block except for the south east corner where metasediments of the Koolpin Formation and Gerowie Tuff occur adjacent to the Mount Goyder Syenite/Mount Bunday Granite outcrop.

The boundary between the metasediments and the intrusive granite is relatively sharp and can be defined in places to within a few metres in the southeast corner. Elsewhere it is concealed beneath black soil cover.

The relinquished eastern block includes a contact between the Mt Goyder Syenite and the Gerowie Tuff, and between the Gerowie tuff and the Koolpin Formation. The latter contact is shown on surface as an iron rich laterite zone that strikes at 220 degrees magnetic, and correlates with the aeromag anomaly.

A mineral claim has been applied for over this area which has enhanced gold levels and is excluded from this report, ref Figure 3.

## **SAMPLING**

Shallow Rab and auger drilling were both used to evaluate the aeromag anomaly in the eastern block which is beneath a black soil cover. Using low detection analysis for gold [Bleg] a peak 20ppb was found in the Rab and 12ppb peak at the same location in the auger sampling

The assays applicable to the relinquished block are included as attachments [1] Auger results.



A power auger was used to provide a sample below the soil and black soil cover at depths ranging from 1 to 3 metres depth, ie primarily from the "C" horizon, or as close to bedrock as possible.

A sample spacing of 25 metres was used to locate any mineral anomalies, and then these are followed up with additional soil sampling and RC or Rab drilling.

## **Assay Results**

These are listed in attachment [1]. Excluded from the attachment are the auger results and the Rab assay results that are contained in the excised mineral lease area.

## **Rehabilitation**

Both the auger holes and the shallow Rab drillholes have been filled in and no visible ground disturbance remains.

All drilling and sampling consumables have been removed and incinerated at the Tom's Gully Mine refuse facility.

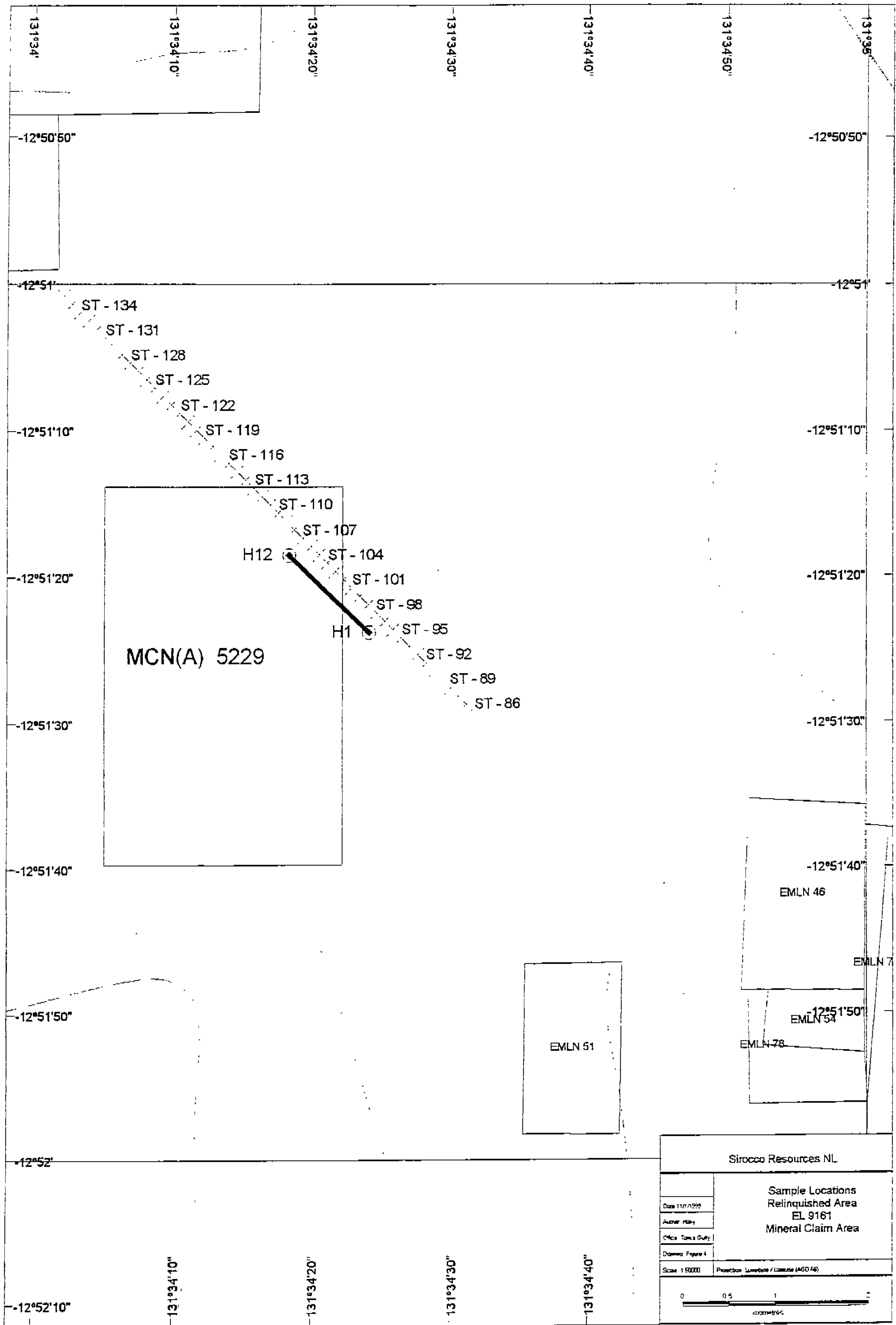
## **Conclusions**

EL 9161 eastern block has been explored by ground mapping, and sampling by power auger.

A large portion of the area is covered by black soil over granite and metasediments of Gerowie Tuff and Koolpin Formation.

Some anomalous bleg results for gold and a lateritic area defined by aeromag survey has been retained in a mineral claim for further valuation.

The rest of the block has been relinquished.





# ASSAYCORP

Report Code: ..... AC 38772

Samples Received: ..... 04/10/97

Number of Samples: ..... 51

**Sirocco Resources**

Assaycorp Pty Ltd

A.C.N. 052 982 911

174 Ward St

Pine Creek NT 0847

Ph (08) 8976 1262

Fax (08) 8976 1310

Report Distribution

David Catherall

Reference: ..... 20975

Project: .....

Cost Code: .....

Page 1 of 4

Sample Preparation:

## Assay Data:

Analysis	Analytical Method	Digest	Technique	Precision & Accuracy	Detection Limit	Data Units
Au	BLEG		2Kg	Prec. $\pm$ 15 %	0.1	ppb
Ag	BLEG		2Kg	Prec. $\pm$ 10 %	0.1	ppb

Report Comment: This cover sheet is an integral part of the report. This report can only be reproduced in full.

Authorisation: Ray Wooldridge

Report Dated: 09/10/97





# ASSAYCORP

ASSAY CODE: AC 38772

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Sample	Au (ppb)	Ag (ppb)
ST-86	0.7	18.4
ST-87	0.6	9.2
ST-88	0.2	24.2
ST-89	0.2	20.8
ST-90	0.4	15.6
ST-91	0.5	18.2
ST-92	1.6	20.2
ST-93	0.1	13.6
ST-94	0.4	10.2
ST-95	0.8	11.6
ST-96	1.3	13.0
ST-97	2.1	9.2
ST-98	3.2	15.8
ST-99	2.9	26.8
ST-100	11.1	33.2
ST-101	7.2	15.8



# ASSAYCORP

ASSAY CODE: AC 38772

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Sample	Au (ppb)	Ag (ppb)
ST-112	2.8	5.8
ST-113	9.6	6.4
ST-114	2.7	12.4
ST-115	2.6	13.0
ST-116	2.8	4.4
ST-117	2.8	3.8
ST-118	9.3	6.6
ST-119	2.5	4.0
ST-120	1.5	2.8
ST-121	3.6	4.6
ST-122	1.3	8.6
ST-123	4.0	8.2
ST-124	3.0	8.0
ST-125	2.9	7.8
ST-126	0.8	14.2
ST-127	1.2	9.8
ST-128	1.7	11.2
ST-129	2.8	12.4
ST-130	1.8	7.8
ST-131	2.7	6.6
ST-132	2.3	9.5
ST-133	3.4	12.6
ST-134	2.4	10.3



# ASSAYCORP

ASSAY CODE: AC 38772

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Sample	Au (ppb)	Ag (ppb)
ST-141	1.1	16.5
Method	BLEG	BLEG





# ASSAYCORP

Report Code: ..... AC 44862  
Samples Received: ..... 16/01/99  
Number of Samples: ..... 86

**Sirocco Resources NL**  
PO Box 7066 Riverside Centre  
Brisbane Qld. 4001

Reference: ..... 20811  
Project: .....  
Cost Code: .....

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PINE CREEK NT 0847  
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Report Distribution  
David Catherall

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## Sample Preparation:

## Assay Data:

Analysis	Analytical Method	Digest	Technique	Precision & Accuracy	Detection Limit	Data Units
Au	FALL	FA	AAS	Acc. $\pm 15\%$	1	ppb
Au(R)	FALL	FA	AAS	Acc. $\pm 15\%$	1	ppb
Ag	G300I	MA3	ICP-OES	Prec. $\pm 10\%$	1	ppm
As	G300I	MA3	ICP-OES	Prec. $\pm 10\%$	1	ppm
Cu	G300I	MA3	ICP-OES	Prec. $\pm 10\%$	1	ppm
Pb	G300I	MA3	ICP-OES	Prec. $\pm 10\%$	5	ppm
Zn	G300I	MA3	ICP-OES	Prec. $\pm 10\%$	2	ppm



# ASSAYCORP

ASSAY CODE: AC 44862

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Sample	Au (ppb)	Au(R) (ppb)	Ag (ppm)	As (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)
H1-4	4		<1	24	31	40	20
H1-4-4.5	3		<1	37	43	25	26
H1-6	4		<1	22	52	21	40
H2-3	2		<1	27	39	49	41
H2-3-3.5	5	5	<1	20	62	57	228
H2-3.5-4	4		<1	20	52	37	214
H2-4.5-5	3		<1	28	46	24	39
H2-5	2		<1	14	37	46	137
H3-2	5	5	<1	23	90	45	57
H3-2-2.5	5	5	<1	16	186	62	122
H3-2.5-3	8	5	<1	22	257	44	172
H3-4	6		<1	12	328	47	352
H4-1	1		<1	40	110	55	16
H4-1-1.5	<1		<1	36	184	61	27
H4-1.5-2	1		<1	37	203	44	39
H4-7-7.5	<1		5	60	742	23	302



# ASSAYCORP

ASSAY CODE: AC 44862

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Sample	Au (ppb)	Au(R) (ppb)	Ag (ppm)	As (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)
H-1	1	2	<1	25	36	57	7
H-1-2	3	3	<1	15	29	50	10
H1-3	1	1	<1	16	26	32	4
H2-1	2	2	<1	19	40	67	<2
H2-2	3	3	<1	5	23	32	<2
H3-1	4	4	<1	32	42	48	8
Method	FALL	FALL	G300I	G300I	G300I	G300I	G300I