



# CULLEN RESOURCES LIMITED

ACN 006 045 790

ABN 46 006 045 790

## QUARTERLY REPORT 30 June 2001

### HIGHLIGHTS

#### **EXPLORATION**

##### **Gunbarrel Gold**

Drilling results are encouraging with best assays of 8m @ 1.07 g/t Au in YRB151, 13m @ 2.60 g/t Au in MEAC 3, 7m @ 0.33 g/t Au in YRB 157. Eureka North Zone upgraded to major regional target with follow up drilling planned.

##### **Gunbarrel Nickel**

Heads of Agreement entered into with WMC to explore for nickel sulphide deposits. Airborne EM survey planned for the current quarter.

##### **Red Hill/Yanks Bore**

An option agreement was concluded with Goldfields Exploration Pty Ltd to acquire Red Hill West E 08/1135 southeast of Yanks Bore. Preliminary percussion drilling tested five targets at Yanks Bore and one at Red Hill West. Nine out of the eleven holes returned anomalous to strongly anomalous gold values.

##### **Killaloe**

Department of Mines and Energy (WA) grants E 63/722 Killaloe. The area is highly prospective for both nickel sulphides and structurally controlled gold deposits.

#### **CORPORATE**

Under a Shareholder Share Purchase Plan that closed on 19 June 2001, a total of \$822,000 was raised. Prior to this a placement of 5million shares at 1.7c was made to clients of D & D Tolhurst raising \$85,000. Cullen is now well placed to fund on going activities which will see drilling at a number of prospects.

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## EXPLORATION ACTIVITIES

### NORTHEAST GOLDFIELDS W.A.

#### GUNBARREL PROJECT (Eureka Group E 53/568, E 53/535, ELAs 53/818, 837, Cullen 100%)

##### *Gold Exploration*

Gunbarrel encompasses 36 km strike of the prospective Mount Eureka Greenstone Belt which is located east of the productive Yandal Belt. A 2,094m RAB/Aircore drilling program was completed to provide a preliminary test of various targets identified by Cullen. These included Eureka North Zone (13 RAB holes, 561m), Taipan Prospect (6 Aircore holes, 582m; 8 RAB holes, 682m) and Mount Eureka Prospect (6 RAB holes, 269m). Assays were received for 1m samples selected from the 5m composite samples and are summarised in Tables 1 and 2. Results are encouraging with three areas of gold mineralisation located in the Eureka North Zone, upgrading it to a major regional gold target. New zones of gold mineralisation were also intersected at Taipan.

##### **Eureka North Zone**

**Eureka North Zone** consists of gold anomalies defined by Pegasus RAB/RC drilling and Cullen's base-of-hardpan (BoH) sampling along the sheared western edge of the Mount Eureka Greenstone Belt. In this zone previous exploration has been hampered by surficial cover. Cullen's drilling was directed at BoH anomalies and gold mineralisation hosted by pyritic quartz - sericite schist in a previous Pegasus RC hole **YRC 7** (40m @ 0.6 g/t Au). Shallow RAB holes **YRB 157** and **159** (Table 1), 50m north and south respectively of **YRC 7** detected similar mineralisation. **YRB 157** bottomed prematurely at 27m in silicified material, the last 7m averaging 0.33 g/t Au, including 1m @ 1.57 g/t Au from 23m. **YRB 159** also terminated at 36m but returned 10m @ 0.26 g/t Au. Results indicate a new mineralised zone at least 100m long and open along trend north and south. It is a priority target for follow up RC drilling.

Ten other RAB holes partially tested BoH anomalies along the **Eureka North Zone**. They produced two very significant intersections. **YRB 151**, located 1km north of **YRC 7** in the Eureka Northwest target was drilled beneath a 281 ppb BoH gold anomaly and intersected 20m @ 0.60 g/t Au from 46m to the bottom of the hole at 66m, including 8m @ 1.07 g/t Au from 55m. The zone represents a significant new RC drill target.

In the Dry Blowing North target, **YRB 166A**, located 800m south of **YRC 7** returned 20m @ 0.15 g/t Au from surface and enhances the prospectivity of the surrounding BoH anomaly which extends for more than 1km. Only three holes have been drilled in the vicinity.

**The recent drilling has upgraded the Eureka North Zone to the status of a major regional target. Only 3 strike km has been partially explored and magnetics indicate an extension of the structure northwards for about 20km within Cullen's ground.**

##### **Taipan Prospect**

Five aircore holes tested various supergene gold targets over a 500m strike. Several significant intersections were obtained (Table 2), the best being 13m @ 2.60 g/t Au in **MEAC 03** including 5m @ 3.92 g/t Au from 39m and 4m @ 3.41 g/t Au from 48m. The results indicate supergene gold mineralisation extends for over 400m along strike, with better gold values in a steeply dipping zone, 10 to 15m wide and about 50m down dip. Evaluation of Taipan is continuing but further testing appears to be warranted. Aircore hole, **MEAC 05**, 1km north of Taipan, returned an intersection of 2m @ 2.4 g/t Au and opens up scope for drilling in that area. Eight RAB holes tested various targets west of Taipan without success but five of the holes failed to reach target because of resistant quartz.

## **Mount Eureka Prospect**

This prospect (Figure 1) is about 400 m east of the Eureka North Zone. Six RAB holes returned a best intersection of 1m @ 0.42 g/t Au.

## **Exploration Proposed**

Follow up exploration of the Eureka North Zone in the September Quarter will include more detailed magnetic interpretation of the western boundary of the Mt Eureka Greenstone Belt, BoH drilling in the vicinity of YRB 151, with infill RAB and RC drilling.

## ***Nickel Sulphide Exploration***

A Heads of Agreement has been signed with WMC Resources Ltd (WMC) giving WMC the right to explore Gunbarrel for nickel sulphide deposits under the following terms:

- WMC will carry out a technical assessment as part of a six month Evaluation Phase.
- WMC can then proceed to an Earning Phase where it can earn a 75% interest by spending \$1,000,000 over 4 years and maintaining the tenements in good standing. Cullen's 25% interest will be free carried by WMC to a Decision to Mine.
- Gold and silver are excluded and Cullen is free to continue its gold exploration.

At Gunbarrel, prospective ultramafics extend over 36 strike km. High resolution magnetics over this area will assist WMC in conducting the first modern nickel exploration since the 1970s nickel boom. Also, BoH drilling in the December 2000 Quarter outlined a number of significant nickel-copper anomalies which may provide direct leads for nickel sulphides.

WMC has commenced the Evaluation Phase. Modelling of magnetic data is in progress and discussions have commenced with Native Title claimants to expedite the grant of applications E 52/818 and 53/837. WMC is planning an airborne electromagnetic (EM) survey to detect massive sulphides within the ultramafics. Any conductors will be followed up by ground EM and drilling. Depending on the grant of tenements, the EM survey is expected to start in September.

## **WHITE WELL (E 53/645 and ELA 53/933 Cullen 100%)**

No field work was carried out during the Quarter.

## **ASHBURTON GOLD PROVINCE W.A.**

### **YANKS BORE PROJECT (E 08/1022 Yanks Bore, Cullen earning 65% from Udu Resources NL, E 08/1135 Red Hill West, Cullen can acquire 100% from Goldfields Exploration Pty Ltd)**

An option was concluded with Goldfields Exploration Pty Limited (Goldfields) giving Cullen rights to explore E 08/1135 for three years. Cullen can exercise the option at any time and purchase the tenement for a modest cash consideration and a 2.5% NSR on metal production.

The 131 km<sup>2</sup> tenement covers 14 strike km of the gold-anomalous silicified structure (Hunter Zone) that extends SSE from Yanks Bore. At the Kays Bore Prospects, Goldfields has outlined several targets where

gold soil anomalies extend over 4 strike km with values peaking at 500 ppb Au with rock chips to 1.7 g/t Au. The southern 10km of the structural zone has not been explored. Cullen now has access to approximately 25 strike km of the prospective Hunter Zone.

A field inspection of soil and rock chip gold anomalies was carried out along the Hunter Zone in E 08/1022 and E 08/1135 to identify drill targets. In general, targets selected were down dip sections of the Hunter Zone (dips about 40° W) within broad soil and rock chip gold anomalies and areas of local structural complexity. Seven targets were selected for scout drilling of which five were in E 08/1022 and two in E 08/1135. The drilling was spread over approximately 8 strike km of the Hunter Zone.

The eleven hole percussion drilling programme (630m) completed in June consisted of five holes at Aberfoyle Knoll, one at each of Aberfoyle North, Aberfoyle South, Fig Tree Ridge and Marshall Find and two at Cummins Hill. Below the zone of oxidation the siliceous and gossanous Hunter Zone is a chloritic, quartz veined dolomite with very minor pyrite and trace arsenopyrite. Phyllites and slates are stratigraphically above the target zone with massive dolomite below. All drill sites were mapped in detail and 160 drill chip samples (4m composites) sent for analysis. Results from composite samples are encouraging and indicate that the Hunter Zone anomalies reflect a major gold mineralised structure. In nine of the eleven holes drilled there are anomalous (+100ppb Au) to strongly anomalous gold values (+400 ppb Au). The best individual intersection is 4m @ 1.09 g/t Au in YBR 05 and the widest 20m @ 177 ppb Au in YBR 01. The gold is associated with broad zones (up to 20m down hole) of anomalous arsenic in the range 100 to 2100 ppm As. Results of 1m samples are awaited.

The scout drilling results significantly upgrade the prospectivity of the Hunter Zone. Further drilling along the 12km Hunter Zone within E08/1022 and E08/1135 will require more detailed definition of targets with closer spaced soil and/or rock chip geochemistry, geological mapping and possibly detailed aeromagnetics.

#### **SLATE BORE (M 08/79, Cullen 100%, E 08/1021, Cullen 100%)**

A potential joint venture partner has carried out a field inspection and preliminary discussions are taking place.

#### **DE COURCY (E 47/874, 875, 903 and 1004, – 100% Cullen)**

No fieldwork was carried out. Field visits by potential joint venture partners were completed this quarter. Planning is underway for a limited programme of shallow RAB drilling at priority targets such as Lizzie and Cullen 5.

#### **HARDEY JUNCTION (E 08/1145, ELA 08/1189 and ELA 08/1166 –100% Cullen)**

Hardey Junction covers an area of 177km<sup>2</sup> and contains the intersection of major NNW and WNW Paraborndoo Hinge Zone structures and 30 strike km of Wyloo Group shelf sediments, a setting similar to the Paraborndoo gold district. Work during the Quarter included field reconnaissance, rock chip sampling of float and outcrop and further data base compilation. Previous exploration (eg Billiton) indicated a number of target areas for gold exploration within the project area. The recent field reconnaissance by Cullen shows that transported cover in the area is extensive and much of this earlier exploration would have been ineffective. While grant of the tenement package is awaited, it is planned to complete the compilation, acquire topographic and Landsat 7 data. Initial field investigations will include reconnaissance geochemistry in selected target areas.

## EASTERN GOLDFIELDS W.A.

**KILLALOE PROJECT**, (ELA 63/722\*, ELA 63/765\*, P 63/1131, 1132, 1133, Cullen 100%,\*7.5% NPI to Xplore Pty Ltd)

E 63/722 (Killaloe) recently granted to Cullen is 30km NE of Norseman. It covers 150 km<sup>2</sup> of Archaean greenstones between the Zuleika Shear and the Boulder-Lefroy Fault at the southern end of the prospective Norseman-Wiluna Greenstone Belt. The entire 166km<sup>2</sup> Killaloe Project, which includes tenement applications E 63/765 (Bansha) and Ps 63/1131-1133, contains numerous indications of base and precious metal mineralisation and has significant exploration potential for gold and nickel deposits. To date, Cullen has compiled an extensive exploration database including high quality aeromagnetics and has carried out preliminary field reconnaissance.

### *Nickel Exploration*

Killaloe covers ultramafic complexes similar to those in the Kambalda-Widgiemooltha nickel district 80km to the north. An Eastern Complex, dominated by komatiites (ultramafic lavas), extends over 18km strike and a Western Complex has layered gabbro-peridotites extending over 10km. Nickel exploration by companies such as Anaconda, Union Oil, CRAE, Aberfoyle and WMC between 1968 and 1982 identified numerous prospects that received varying degrees of exploration. Priority nickel targets are considered to be **N.E. Volcanic Zone, Beetroot, Duke Nickel and Peninsula**. These prospects include several Cu/Ni rock chip and soil anomalies with gossanous zones and a number of previous RAB/percussion holes with anomalous nickel. For example, nickel-copper gossans at the **N.E. Volcanic Zone** assayed up to 4,850 ppm Ni, 3,750 ppm Cu. At **Duke Nickel** numerous shallow RAB intercepts are reported from previous drilling. At **Peninsula** a Ni/Cu soil anomaly extends over a structurally complex zone and a southern Ni/Cu anomaly over a 3,500 x 280m area. Also, **Peninsula South** (Bansha ELA) is a Ni soil anomaly over an area of 3,500 x 850m. Additional nickel prospects include **Gossan Area C** and **Killaloe Nickel** where previous RAB drilling returned several anomalous bottom of hole Ni/Cu assays. **These prospects have not been explored in recent years and the application of modern EM geophysical surveys could lead to early definition of new drill targets.**

Cullen will seek a joint venture partner to carry out exploration for nickel and other base metals on the Killaloe tenements. A comprehensive data base and information memorandum have been prepared and a select group of companies will be invited to express interest.

### *Gold Exploration*

Cullen's review of gold exploration since the early 1980s, together with interpretation of detailed aeromagnetics, shows the area to be very prospective for gold mineralisation. Priority targets include known gold mineralisation at the historic underexplored Killaloe prospect. Workings here extend for more than 2.5 km along a sediment-mafic volcanic structural contact. Rock chip samples collected by Cullen are encouraging with 3 grab samples of ferruginous quartz veins assaying from 4.6 g/t Au to 28.0 g/t Au. Cullen plans grid based pedogenic carbonate soil sampling and geological mapping prior to drill testing.

**Killaloe South** is an extension of the Killaloe Prospect and previously defined by soil gold anomalies over an area of 2.9 km x 1.1 km. Pedogenic carbonate soil sampling and geological mapping is also planned with follow up drilling as required.

The nearby **Duke Prospect** provides a target for drill testing of a supergene gold zone identified from previous RAB and RC drilling. At Duke, the supergene gold zone is approximately 350m x 45m. Two previous holes returned **24m @ 2.15 g/t Au and 12m @ 1.12 g/t Au** and a second soil gold anomaly gave a RAB intercept of **4m @ 1.28 g/t Au**.

Other prospects include **Cashel** and **Big Bend** where prior exploration has located soil and/or drill anomalies that warrant follow up.

## CORPORATE

During the quarter the Company added approximately \$900,000 to its cash resources. These funds were raised via;

- a placement of 5.0 million new ordinary shares at 1.7 cents per share to clients of D & D Tolhurst, raising approximately \$85,000; and
- an initial offer under the Cullen Resources Shareholder Share Purchase Plan which raised approximately \$822,000 from the issue of approximately 48.4 million new ordinary shares at an issue price of 1.7 cents per share.

The result of these capital raisings increased the Company's available cash resources to approximately \$ 1.16 million at the end of the quarter.

The issue of new shares made by the Company pursuant to the placement and Shareholder Share Purchase Plan referred to above were approved by shareholders at a General Meeting of the Company held on 26 June 2001.

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**Table 1: Significant RAB Drilling Results – Eureka North Zone**

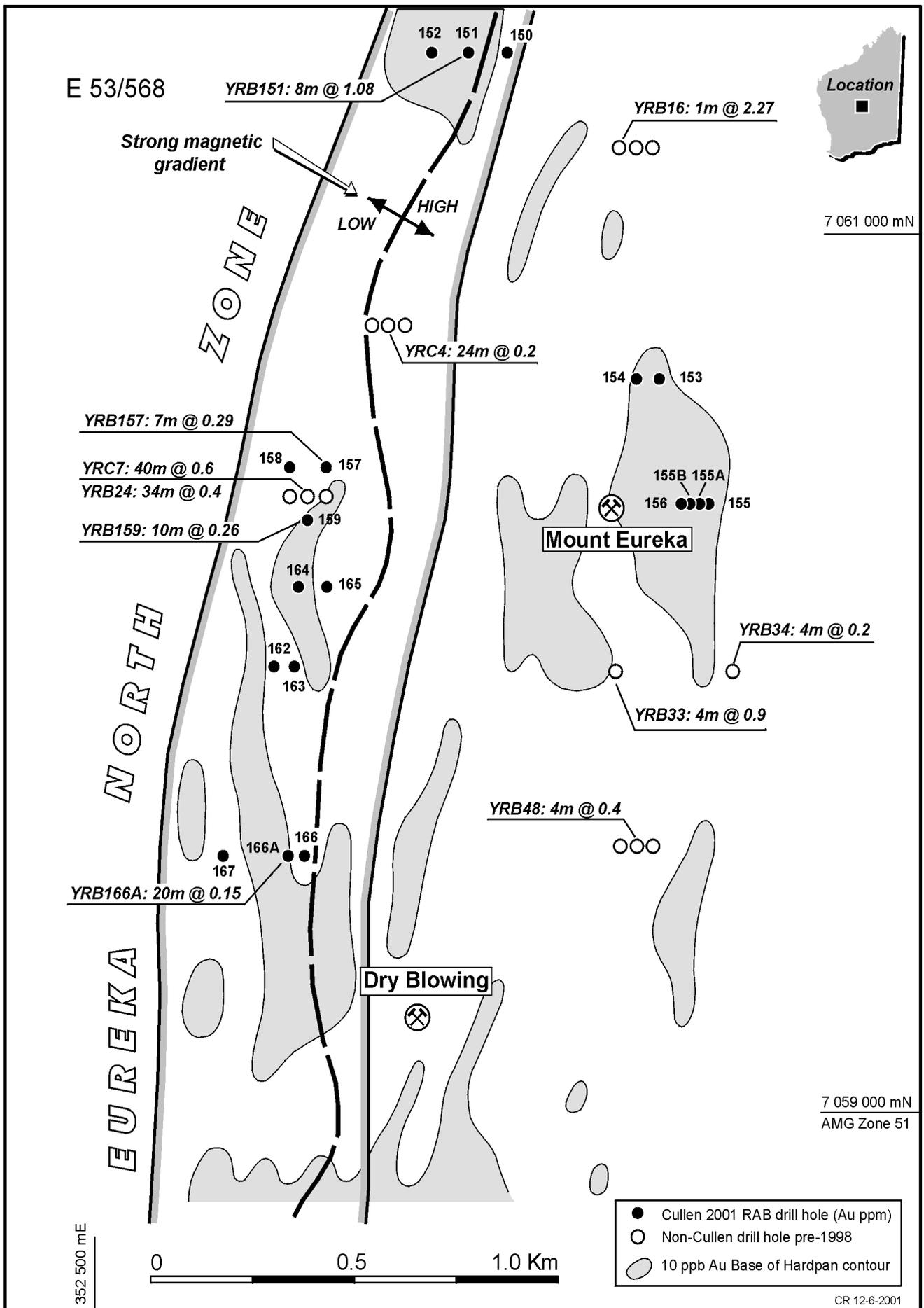
Hole	Co-Ordinates		Intersection From (m) – To (m)	Interval (m)	Gold (g/t)	Comment
	E	N				
YRB 151	353386	7061387	46-66	20	0.60	
			<i>incl 55-63</i>	8	1.07	
YRB 153	353834	7060643	9-10	1	0.42	
YRB 157	353054	7060454	20-27	7	0.33	
			<i>incl 23-24</i>	1	1.57	
YRB 159	353014	7060354	15-25	10	0.26	<i>*5m composite</i>
YRB 166A	352973	7059611	0-20	20	0.15	<i>*5m composites</i>
YRB 166	352998	7059611	19-20	1	0.29	

**Table 2: Aircore Drilling Results – Taipan Prospect**

Hole	Co-Ordinates		Intersection From (m) – To (m)	Interval (m)	Gold (g/t)	Comment
	E	N				
MEAC 01	354793	7049674	77-100	23	0.22	<i>60° inclination *5m composites 79-89m,95-100m</i>
			<i>incl 89-90</i>	1	0.94	
MEAC 02	354891	7049812	22-30	8	0.97	
			<i>incl 22-27</i>	5	1.37	
			50-55	5	0.86	
			67-70	3	0.43	
			86-92	6	0.51	
			<i>incl 89-90</i>	1	1.05	
MEAC 03	354912	7049971	39-52	13	2.60	
			<i>incl.39-44</i>	5	3.92	
			<i>incl 39-40</i>	1	17.44	
			<i>incl 48-52</i>	4	3.41	
			80-83	3	0.39	
MEAC 04	354952	7050127	30-35	5	0.28	<i>60° inclination</i>
			83-84	1	0.49	
MEAC 05	354964	7051824	62-64	2	2.43	<i>60° inclination</i>
MEAC 06	354873	7049879	35-39	4	0.70	
			<i>incl 37-38</i>	1	1.79	
			74-90	16	0.47	
			<i>incl 78-79</i>	1	1.18	
			82-83	1	1.41	
			86-87	1	2.75	
			96-97	1	2.75	

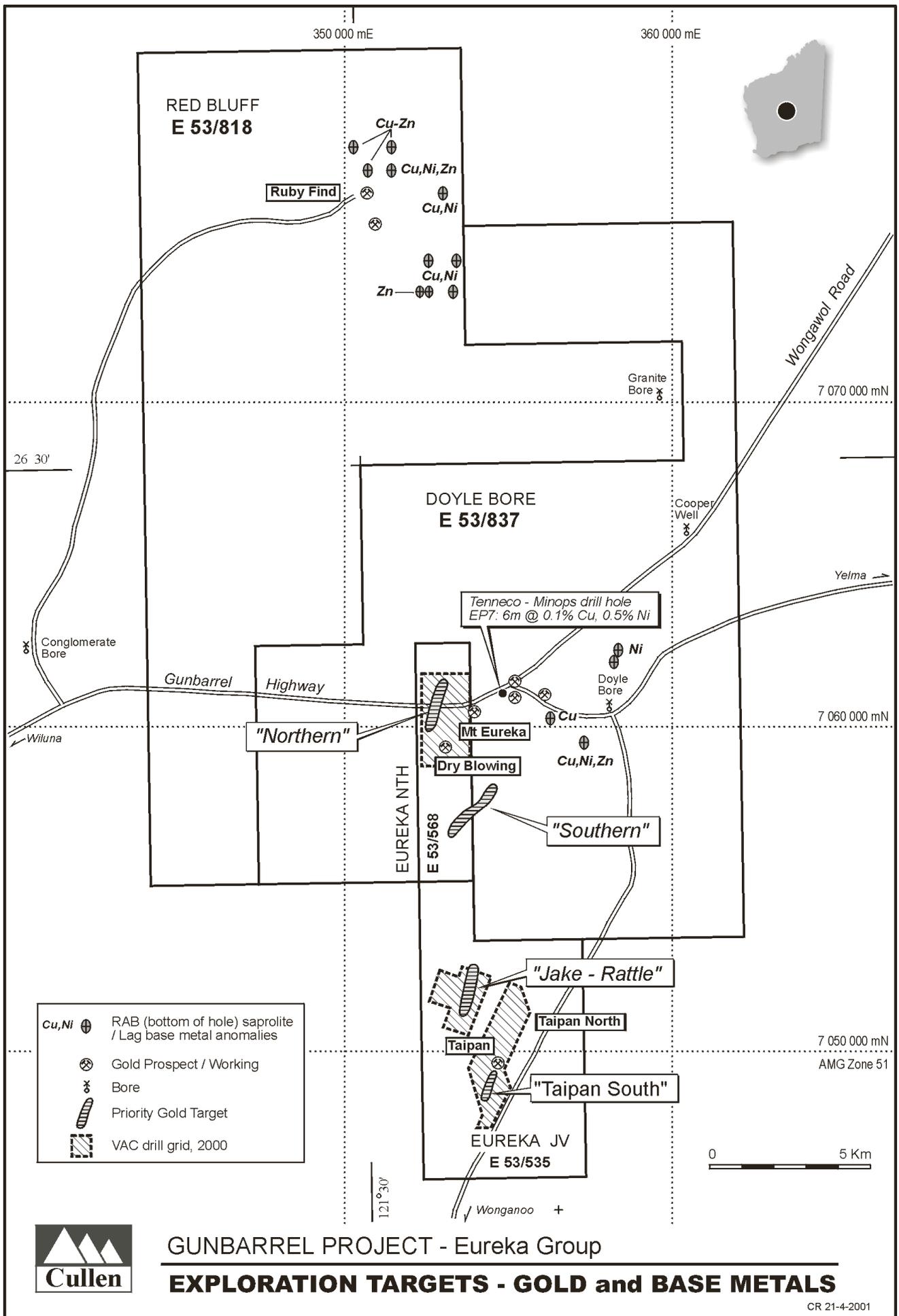
**NOTES:**

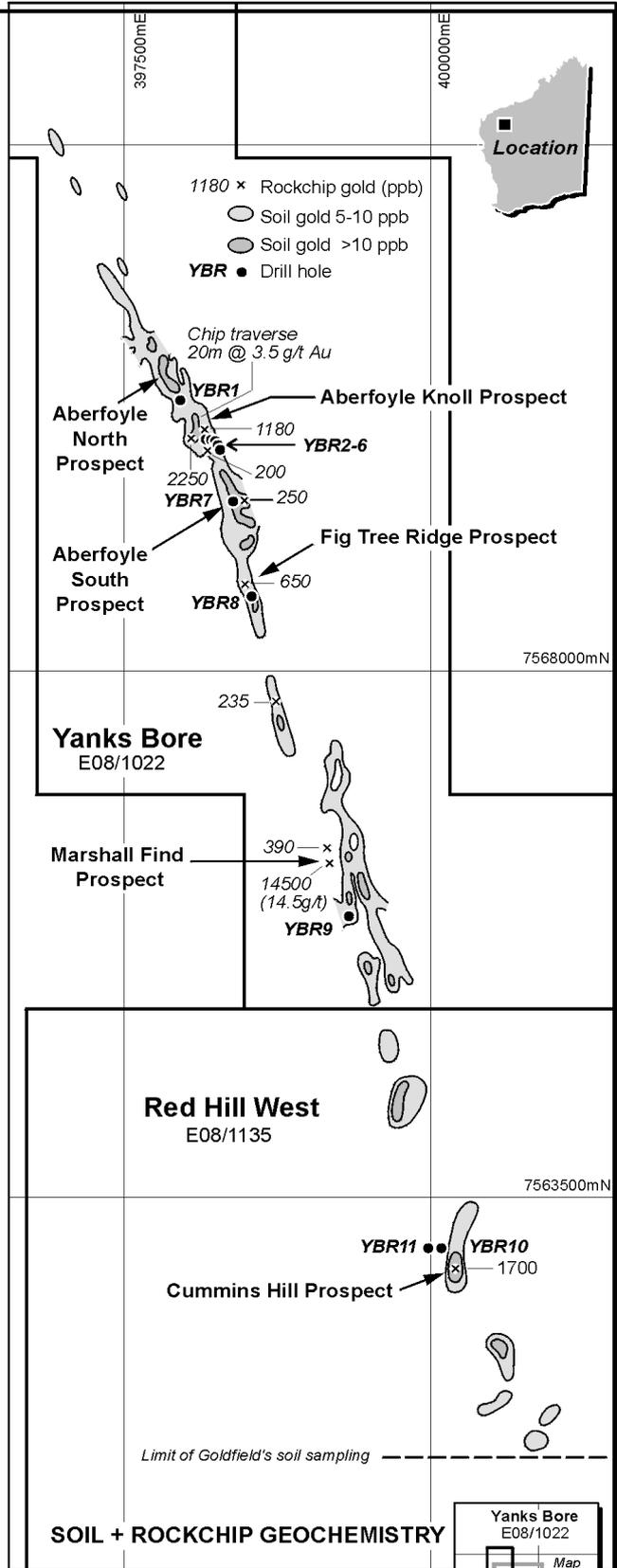
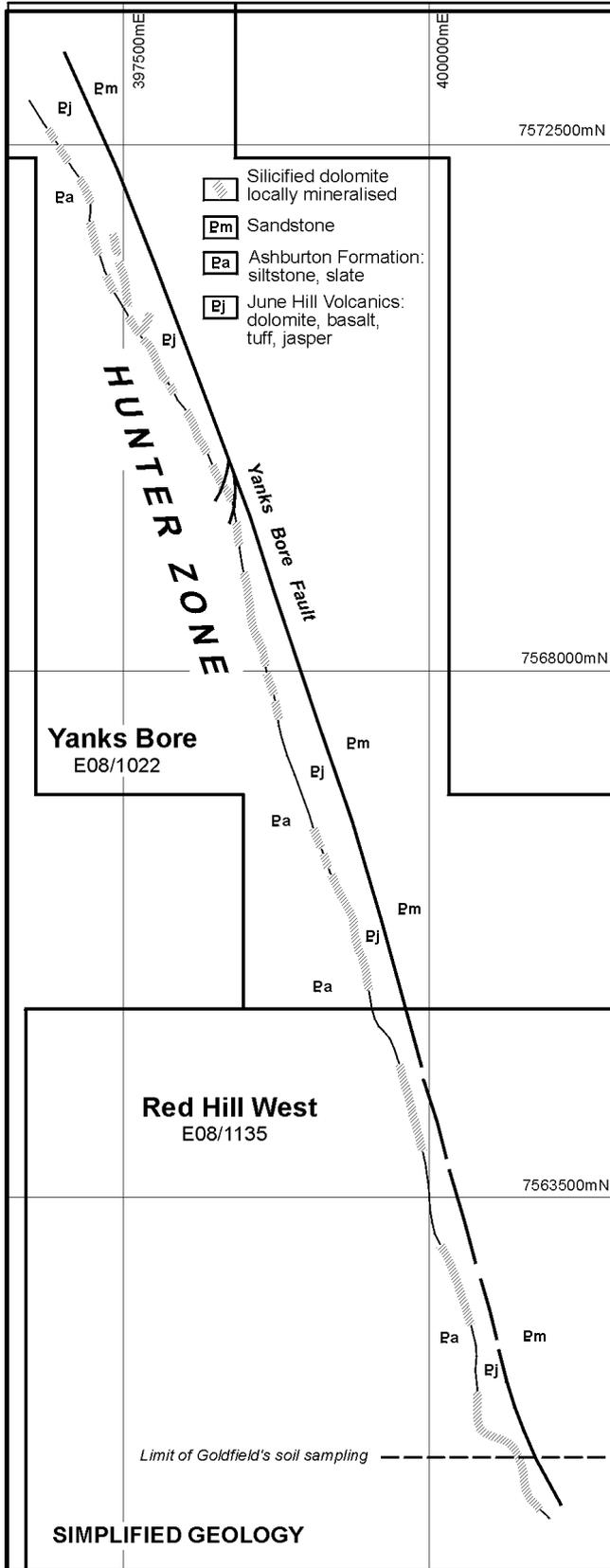
All RAB holes are drilled at 60° inclination, 270° azimuth. All aircore holes, vertical except where indicated.. Aircore holes angled at 60° are drilled to 270° azimuth. Samples are assayed by graphite furnace AAS after Aqua Regia digest (1ppb Au detection limit ). All samples assayed on 1m intervals except where indicated as 5m composites.



**FIGURE 1**

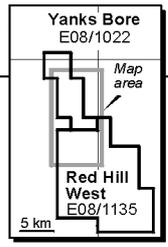
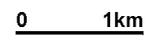
**GUNBARREL PROJECT - Eureka North Zone**

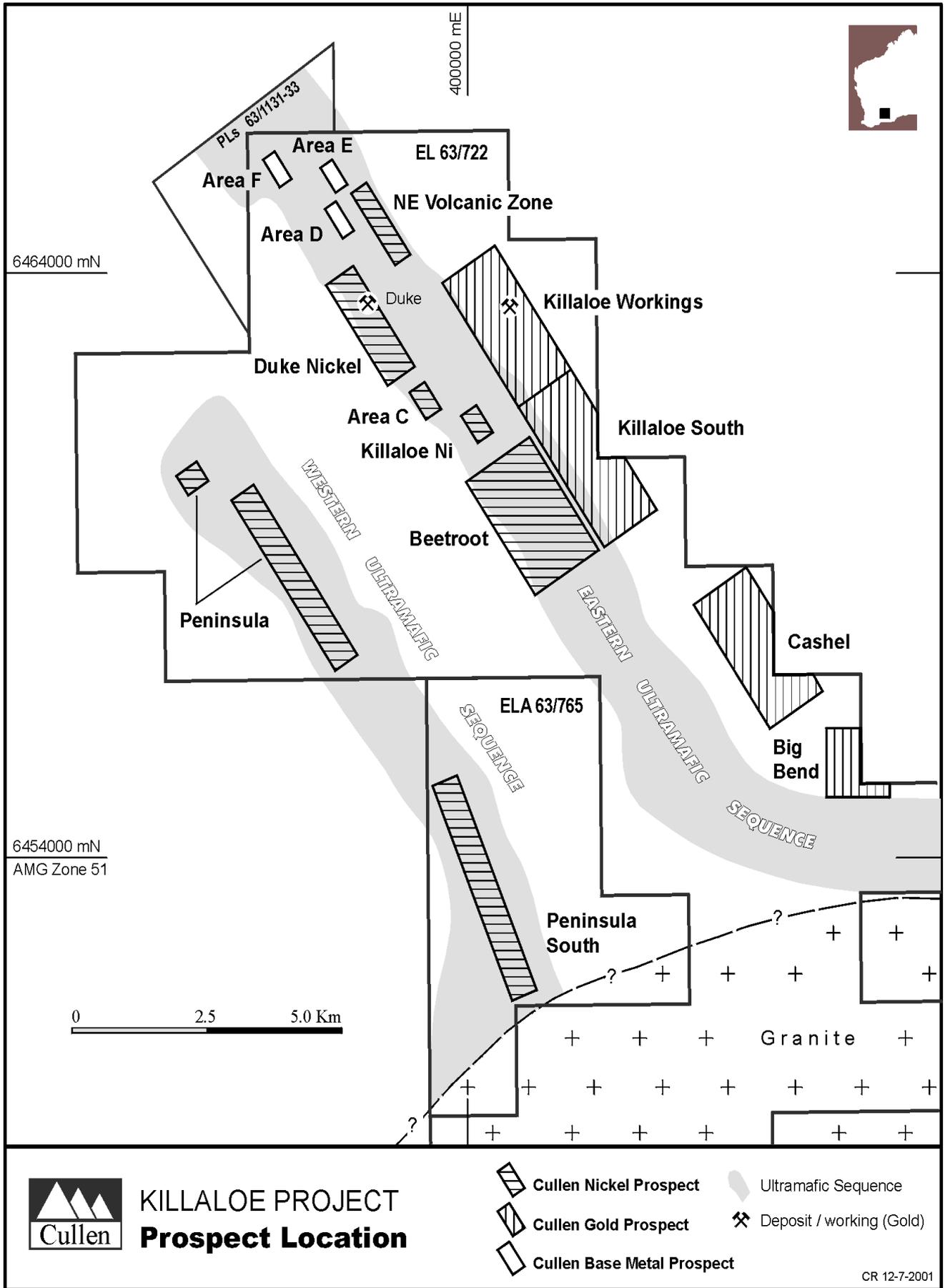


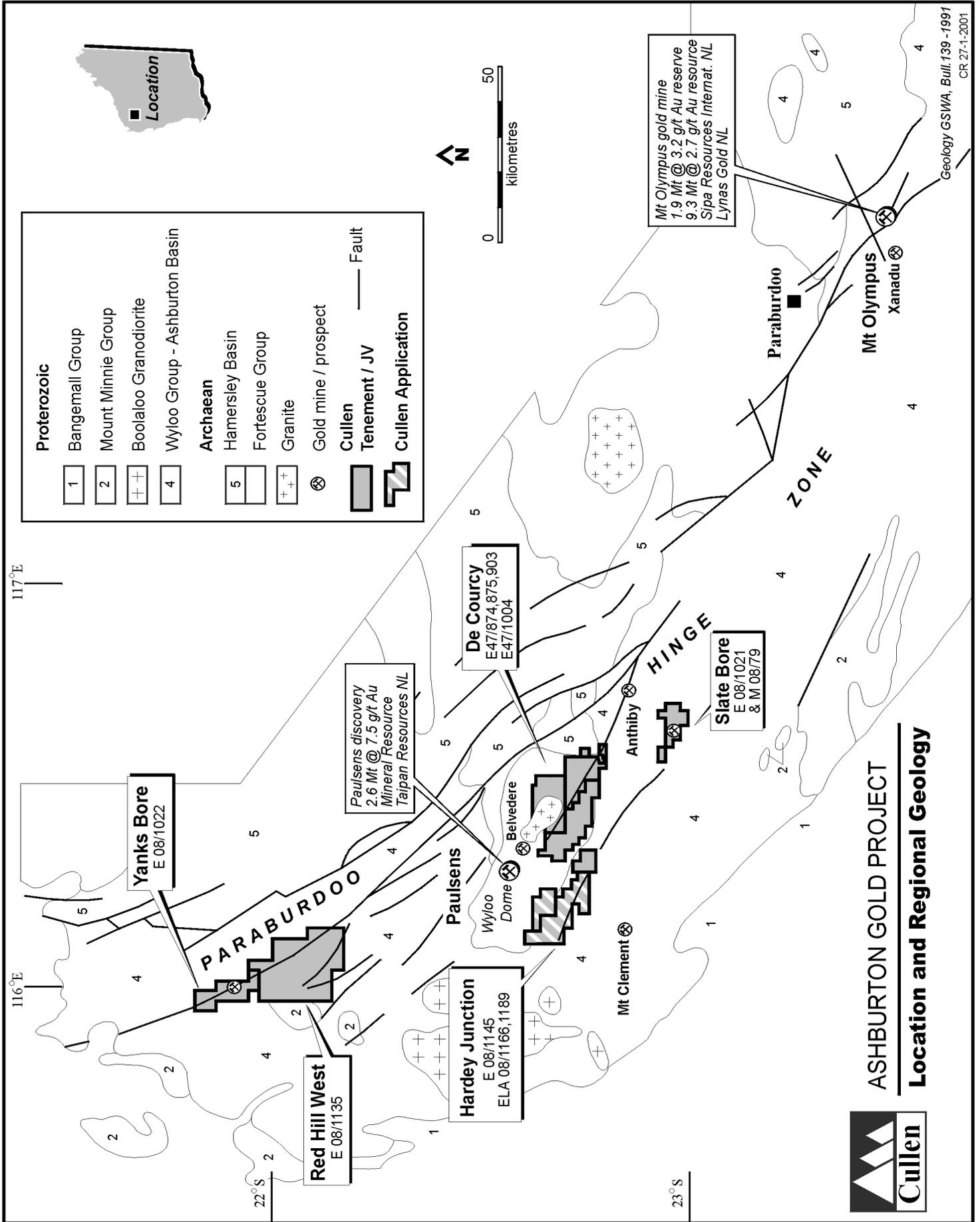


**YANKS BORE - RED HILL WEST**

**Tenement Location-Geology-Geochemistry**







**ASHBURTON GOLD PROJECT**  
**Location and Regional Geology**

