

RENISON CONSOLIDATED MINES NL

# 2007 Annual Report

# On

# **EXPLORATION LICENCE, EL 23173**

**AuQuest Project Area** 

Period Beginning 4<sup>th</sup> March 2006 To Period Ending 3<sup>rd</sup> March 2007

LICENCEE \ OPERATOR: STANDARD 1:250,000 SHEET: STANDARD 1:100,000 SHEET: AUTHOR: DATE: DISTRIBUTION: Renison Consolidated Mines NL SD5204 Darwin Mary River 5272 Scott Hall Exploration Manager. April 2007 NT Department of Mines & Energy. Renison Consolidated Mines NL, Brisbane. Renison Consolidated Mines NL, Tom's Gully.

# **Tenement Details**

This Tenement was applied for in 1999 and has been held up in Native Title until recently. The tenement comprises 6 blocks covering 11km<sup>2</sup> West of Tom's Gully Mine Site.

#### **Tenement History**

#### Table 1 Tenure Details EL 23173

Block Identification Map		Mount Bundey 8/6 III			
Blocks		60/39; 60/40; 61/39; 61/40; 62/39; 63/39			
Date of Grant		4 <sup>th</sup> March 2003			
Period of Grant		6 Years			
Year of Tenure	Period	Blocks		Blocks	Expenditure
		Surre	ndered	Retained	Covenant
1	2003/2004		0	6	\$4,000
2	2004/2005		0	6	\$7,500
3	2005/2006		0	6	\$8,000
4	2006/2007	0		6	\$9,000
5	2007/2008		0	6	\$10,000
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#### SUMMARY

Renison Consolidated Mines NL has been developing an exploration strategy in the Northern Territory since 1999. This strategy includes targeting dislocations that host economic gold mineralisation within regional structures that intersect known stratigraphical and structural features of the Pine Creek Geosyncline. EL22206 forms a part of a regional package of tenements (AuQuest Project) that have a northwest trend, covering what the Company has called the Noonamah-Corroboree trend. Processing of Northern Territory Government supplied 400m spaced aeromagnetic and radiometric data has significantly enhanced the detail of the underlying geology and the subsequent interpretation of the prospectivity of that area.

Over the past three years, the Company's focus in the Northern Territory has been the development and subsequent operation of Stage 3 of the Quest 29 dump leach operation during 2003/04, and the completion of the resource drilling, feasibility study and start of underground mine development at Tom's Gully which will produce approximately 40,000ozpa of gold.

Approximately \$2.5m has been spent on ground at Tom's Gully and other tenements within the AuQuest Project, as part of the company's exploration strategy, over the previous 18-month period. The Feasibility Study on Tom's Gully Underground has been completed and underground development started in September 2005 with the mill currently undergoing final commissioning.

Quest 29 and Tom's Gully are part of the AuQuest project, which covers approximately 1000 square kilometres of exploration licenses including EL 22206. It is expected that exploration on these EL's will find additional open cut ores which can be treated through the Tom's Gully plant and exploration has focused on these EL's and targets during 2007.

Work completed on this tenement has comprised of literature reviews and initial data entry to GIS of historical work.

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# **1. INTRODUCTION**

EL23173 has been granted to Renison Consolidated Mines for a period of 6 years, this report summarises the work carried out on the tenement during the second year of tenure.

All previous work is being compiled into GIS format for target generation. The objective of the Company within the licence area is to fine resources suitable for the continuation of the dump leach operation at the nearby Quest 29 Project and more hopefully suitable grade material to supplement the underground mining being planned for Tom's Gully.

Access to the tenements is available from the 47 Mile Road (the original Marrakai Track) which links the Arnhem Hwy to the Marrakai Track, the turnoff is located between the Tom's Gully Mine Site and Corroboree Park Tavern. The 47 Mile Road then links to a dry season only track to the Tenement boundary. However these tracks become impassable after heavy rain, and therefore no access is possible throughout the wet season.



#### **REGIONAL GEOLOGY**

EL 23173 is located within the Pine Creek Geosyncline, which has been interpreted as an intracratonic basin lying on an Archaen basement, and containing a 14 km thick sequence of Proterozoic sediments, accompanied by lesser volcanics, granitic plutons and dolerite intrusions. The Northern portions of the project area contain the oldest sediments The Mount Partridge Group that is unconformably overlain by the South Alligator Group, which comprises most of the tenement areas. The southern portion of the Project area is comprised of Burrell Creek Formation, which conformably overlies The South Alligator Group. Tertiary and Quaternary Soils and Gravel's unconformably overlie all the lower lying portions of the tenement areas, generally referred to as "Black Soils Regions". All of the Early Proterozoic sediments and volcanics in the Mount Bundey area were folded in a major deformation event dated around 1800 million years. The fold axes trend north-northeast, and generally plunging gently to the south. As can be seen in Figure 2.

#### 2.1 The Mount Partridge Group

#### 2.1.1 Wildman Siltstone

The Mount Partridge Group is represented by the Wildman Siltstone, which is interpreted to be up to 1500m thick. In the Mount Bundey Region the Wildman Siltstone consists of laminated and banded shale, carbonaceous and often pyritic siltstone inter bedded with undifferentiated volcanics in up to 100m interbeds, minor dolomitic sediments may also be present. The sediments near the granite intrusion may also be hornfelsed. The Wildman Siltstone is interpreted to be prospective for large tonnage, low-grade gold deposits and small tonnage, high-grade deposits. Wildman Siltstone hosts the Tom's Gully gold deposit.

#### 2.2 The South Alligator Group

The Koolpin Formation, Gerowie Tuff and the Mount Bonnie Formation represent the South Alligator Group. The rocks of the South Alligator Group are considered to be prospective for either large tonnage, low grade gold deposits (such as that at the nearby Rustler's Roost gold mine) or small tonnage, high grade deposits.

#### 2.2.1 Koolpin Formation

The Koolpin Formation comprises ferruginous siltstone and shale, which is commonly carbonaceous and pyritic. Chert bands and nodular horizons are common and lenses of ironstone occur occasionally, as haematitic breccias throughout the sequence into undisturbed quartz-veined siltstone and shale. Minor components of dolomite can also occur. The Koolpin is one of the most prospective units in the Mount Bundey Region for hosting mineralisation (West Koolpin, Taipan, BHS and North Koolpin Open Pits at Quest 29 are all within Koolpin sediments)

#### 2.2.2 Gerowie Tuff

The Gerowie Tuff conformably overlies the Koolpin and has similar characteristics of siltstones and shales but is not as iron rich. Within the Mount Bundey Region it is dominated by graded beds of siliceous tuffaceous mudstones grading to greywacke and arenite, diagenetically altered, up to 600m thick, and generally poorly mineralised. The highly siliceous component of the tuffs and arenites make them resistant to erosion, and they tend to form areas of high relief.

#### 2.2.3 Mount Bonnie Formation

The Mount Bonnie Formation conformable overlies the Gerowie Tuff and is dominated by a shallow marine sequence of interbedded and graded siltstone, chert and greywacke with occasional BIF's. The unit can be up to 600m thick and is generally iron rich and may be siliceous in places. The Mount Bonnie Formation hosts the Rustler's Roost deposit.

#### 2.3 Finniss River Group

#### 2.3.1 Burrell Creek Formation

Conformably overlying the Mount Bonnie Formation is the Burrell Creek Formation interpreted as a flysch sequence of fine to coarse marine sediments and appears to be part of continuous sedimentation process. Due to the lack of marker horizons and poor exposure the width of the unit is unknown but is thought to be >1000m. This Formation is considered prospective for large low-grade gold deposits as typified by the Batman deposit of Mount Todd. The potential also exists for small high-grade deposits similar to Possum and Happy Valley with John Shields GIGIAC Theory (Gold in Greywacke in Anticlinal Crests). Also high-grade deposits such as Bandicoot, Marrakai and the Ringwood line which all lie on a major deep-seated magnetic trend.

#### 2.4 Intrusives

#### 2.4.1 Zamu Dolerite

The Zamu Dolerite occurs as small bodies that are poorly exposed, as a result of its weathering, some rubble boulders may be present at surface. It consists of altered quartz dolerite and gabbro and is generally narrow and broadly conformable to bedding as thin sills. The Zamu Dolerite is the only known suite of mafic intrusives that were emplaced prior to regional metamorphism and deformation. The Zamu Dolerite appears to have a controlling influence on the mineralisation at Quest 29 within the Koolpin sediments but this is not fully understood at this stage. Mineralisation is also hosted within this unit at Quest 29 and also at Chinese Howley.

#### 2.4.2 Mount Bundey Granite & Mount Goyder Syenite

The sedimentary sequences and the Zamu Dolerite are intruded by the Proterozoic Mount Goyder Syenite and Mount Bundey Granite which form a co genetic complex which crops out over about an 80km area. This intrusion is believed to have been the heat and fluid source for the mineralisation, which occurs throughout the local region. Their mineralogy and geochemistry suggests they are both differentiated from a common magma, which intruded into the gently south plunging folded belt of sediments.

A thermal metamorphic overprint associated with the southern margin of the Mount Bundey Granite intrusive has resulted in the development of both cordierite and andalusite, and probably was the generator for the local gold mineralisation. Further to the south of the Mount Bundey and Mount Goyder intrusive is possibly a second deep-seated pluton as indicated by a roughly circular magnetic feature (Discussions with Williams Resources 1998).

#### 2.5 Deformation & Metamorphism

Regional deformation with north-northeast folding plunging gently south occurred around 1800 My, based on a rubidium-strontium analysis, causing metamorphism to greenschist, and sometimes higher to amphibolite facies. This event also resulted in the intrusion of thin sills of Zamu Dolerite, and the post – tectonic emplacement of the Mount Bundey Granite and Mount Goyder Syenite is a comparable cogenetic pluton dated at 1790 + 110 My in the region. Structural deformation of the metasediments is complex.

The major folding episode resulted in tight folds whose axes plunge southwest. However within these major folds the more incompetent beds, i.e. carbonaceous shales, have been deformed into localised complex structures. The granitic emplacement has also influenced the fold structures as can be seen on the regional geological map. Metamorphism to greenschist facies through dynamic compression associated with intense folding is common. The granitic emplacement and the associated structural deformation and generation of hydrothermal fluids are thought to have been responsible for most of the gold enrichment throughout the Pine Creek Geosyncline. e.g. Cosmo Howley, Rustlers Roost, Toms Gully, Moline, Mt Todd and Quest 29.



### **3. PREVIOUS EXPLORATION**

The earliest record of exploration in the Mount Bundey region was Australian Geophysical Pty. Ltd. (AP 1727-1730, AP 1751 & AP 2226-2228) from 1967 – 1971 utilising geochemical and geophysical surveys and some limited follow up RAB drilling, primarily looking for uranium and base metals with no recorded success.

The next significant exploration within the region was undertaken by Geopeko (EL 142) during the early 1970's following their acquisition of the then relatively new BMR aeromagnetic and radiometric survey data, which was flown during 1970. Interpretation of this geophysical data outlined a large number of potential target areas throughout the region, which were subsequently investigated by ground based geophysics, geochemical sampling, stream sediment sampling; soil geochemistry; rock chipping, geological mapping, costeaning, and limited drilling. These sampling programs defined anomalies, which were thence-designated "Quest" numbers for identification. These anomalies became the focus of Geopeko's exploration activities for some six years. The majority of the Quest prospects were covered by Mining Claims during this exploration program.

All of this early exploration was focused on uranium and base metals with gold being of minor consideration. Geopeko having located some base metal and gold mineralisation at Quest 29 then brought in Carpentaria Exploration.

In 1986 EL 4927 was granted to Carpentaria Exploration who from a stream sediment survey discovered a new gold deposit at Tom's Gully in the Wildman Siltstone.

Following the successful discovery of the Tom's Gully gold deposit during 1986 - 1993, Carpentaria launched a regional gold exploration program, largely completed under Joint Venture agreements with smaller companies or syndicates, which held exploration tenure within the area. (EL 4165, EL 5355). The programmes were comprised mainly of stream sediment sampling, which had successfully discovered Tom's Gully. The work on the rest of the Mount Bundey Region however produced limited success with follow up rock chipping and drilling only finding very small scale prospects. No drilling was completed within EL 23173.

Normandy Poseidon 1993 – 1995 (SEL8019, EL7568, EL7643) searching for diamonds, base metals and gold. The most recent exploration completed by Poseidon Exploration under a regional exploration program aimed primarily at the discovery and evaluation of lamprophyre dykes, which were found to be shedding kimberlitic indicator minerals. Exploration was based upon interpretation of kimberlitic target signatures from aeromagnetic imaging. The project area consisted of 15 separate Exploration Licences that were subsequently amalgamated under Substitute Exploration Licence 8019.

This work has been compiled into GIS format; which can be seen in Figure 2.

Current Tenement Holders in the Project Area include Northern Gold 1990 – present, Valdora – Rustlers Roost Mining - Williams Inc.- Valencia Ventures 1993 - present and Renison Consolidated Mines NL 1997 – present.

# 4. CURRENT EXPLORATION

Work on tenement EL 23173 during the reporting period has consisted of a literature review of previous land holders, and compilation of data and entry into the Regional GIS database, interpretation of remote-sensing imagery over the project area, traverses along the northern and western boundaries, and a reconnaissance traverse toward 130 degree magnetic through the center of the EL.

Access to EL 23173 is possible from the 47-mile track, which joins the Arnhem Highway, and the Marrakai Track. A short 1.1km bush track joins the northwestern corner of the tenement with the 47 mile track.

Low rubble strewn hills and ridges dominate the topography and numerous gullies, channels and creeks amenable to stream sediment/ BLEG soil sampling drain the area. Bedrock exposure is limited throughout the tenement, where more resistant lithologies do occur, prominent outcrops are present, mainly consisting of meta-quartzite, ferruginised sandstones, and bands of cherty, silicified cream – weathered Gerowie Tuff.

A remnant ferruginous lateritic duricrust with cemented lithic fragments is also present on hills along the western boundary of the tenement.

Processed regional magnetic imagery indicates a linear, north-west trending structure (magnetic low) transecting the north-eastern sector of EL 23173, and is interpreted to be an ancient basement structure which may have interacted with the overlying folded geosynclinal succession to provide channels/pathways for mineralizing fluids.

### **5. REHABILITATION & ENVIRONMENTAL PROTECTION**

Environmental disturbance has been kept to a minimum through the use of existing fence lines and tracks along the northern and western boundaries of the tenement. Traverses to the interior of the tenement were made along ridge lines avoiding native flora where possible.

# 6. EXPENDITURE DETAILS for EL23173 DURING 2006/2007

Expenditure Type	EL 23173
Covenant	\$ 9,000.00
Accommodation Total	\$460.00
Acquisition of imagery Total	\$0
Acquisition of maps and literature Total	\$156.00
Administration Total	\$461.20
Air Fares Total	\$130.00
Analysis of Data \ Results Total	\$0.00
Assaying Total	\$0.00
Computers & Software Total	\$110.00
Consultants Total	\$100.00
Consumables Total	\$0
Data Acquisition Total	\$0
Data Entry Total	\$3,500.00
Drilling Total	\$0
Earthworks Total	\$0
Fuel Total	\$245.00
Geological Personnel Total	\$3,250.00
Miscellaneous Total	\$0
Rehabilitation Total	\$0
Reporting Total	\$480.00
Rig Mobilisation Total	\$0
Road works Total	\$0
Rock Chipping Total	\$0
Site office costs Total	\$183.50
Soil Sampling Total	\$0
Vehicle Expenses Total	\$250.00
Grand Total	\$9,325.70

I certify that the information contained herein, is a true statement of the operations carried out and the monies expended on the above mentioned tenement during the period specified as required under the *Northern Territory Mining Act* and the Regulations thereunder.

X I have attached the Technical Report		
1. Name:	Scott Hall	
Position:	Project Manager	
Signature:	Sect Hall	
Date:	29/03/2007	

# 7. CONCLUSION AND PROPOSALS

Reconnaissance throughout EL 23173 indicates that most of the licence is covered by Black soils of the Adelaide River floodplain. Outcrop is limited to several hills, ridges and low rises occurring as islands protruding through the soil cover. Extensive, thick, Mimosa and Turkey bush vegetation covers the tenement, making cross country travel difficult; outcrop accounts for only 5% of the licence.

There will be further more extensive rock chipping and soil sampling of the hills and ridges throughout the tenement. Any new emerging prospects will be mapped and costeaned. Stream sediment sampling may be evaluated for use within the licence area.

Potential for finding further minable resources within the Mount Bundey Area is considered very high, particularly along the Corroboree-Noonamah magnetic trend where known high-grade Au-quartz mineralisation has already been found at Steve's Hill and Bandicoot.

Section 7.2 Work program for the next twelve months:		
Activities proposed (please mark with an "X"): ? Drilling and/or costeaning		
X Literature review	? Airborne geophysics	
X Geological mapping	? Ground geophysics	
X Rock/soil/stream sediment sampling	Other:	
Estimated Cost:	\$10,000	

# 8. REFERENCES

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