



**ASX ANNOUNCEMENT – 30 October 2009**

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## **Company Activities Update September 2009**

### **Highlights of the First Quarter**

#### ***Exploration***

- 450m trenching program completed in a total of 16 trenches which showed gold consistently present at the surface in specific, dark coloured granitic rocks.
- 3,000m exploration Diamond drilling program at Porto Estrela prospect commenced in late July and the fourth hole is nearing completion currently in late October.
- Assays have been returned from parts of the first 2 holes. Both appear structurally related, remobilised mineralisation, with best intercepts of 5m @ 2.7g/tAu, 1.5g/tAg, including 1m @11.1g/tAu, 6.5g/tAg in hole 1 and 7m @ 0.28g/tAu in hole 2.

#### ***Mineral Drilling Division - GeoLogica Sondagens***

- An additional 7,000m extension of diamond drilling contract in the State of Goias.
- Rigs mobilized to 4 new gold exploration contracts during the quarter.
- Attendance at the Brazilian Mining Expo 'Exposibram' during September resulted in many new significant prospects for work in the 2010 calendar year.
- Drill fleet fully employed to year's end.

## EXPLORATION ACTIVITIES

### Alta Floresta Project

#### Background

The Alta Floresta Project is located within the Southern Amazon Craton in the northern part of Mato Grosso State in central west Brazil. The project comprises three discrete groups of tenements covering an area of approximately 1,450km<sup>2</sup> within a 330km long portion of the Alta Floresta gold belt, where government records estimate past production in excess of 5 million ounces of gold. The three tenement groups are located in the Peixoto/Novo Mundo, Paranaita and Apiacas regions respectively.

#### Exploration Activities

Field work continued at the Porto Estrela prospect, near Apiacas, in north-western Mato Grosso State, Brazil throughout Q1 with more surface geological mapping followed by a program of trenching in selected locations, in preparation for a diamond drilling program, which also commenced during the quarter.

The trenching program totalled 450 metres, in 16 separate trenches designed to provide geological information and to facilitate systematic assay sampling in perceived important areas. Most trenches reached depths of 3-5 metres, permitting continuous channel sampling at 1 metre intervals along the entire length. A 1kg sample split was taken from each bulk channel sample, crushed and panned for immediate indications of the presence and comparative abundance of gold. The number of gold grains in each panned sample was carefully counted for each of the 450 samples collected.

Although the rocks in the trenches were highly weathered, two distinctly different granitic rocks were identified and these are common throughout the immediate area. One was a pale coloured granitoid, the other darker, with iron rich minerals present. Gold was present in significantly higher proportions in the darker rocks. This was convincingly shown by pan-dish sample counts. The maximum number of gold points counted from a 1kg sample was 360, several samples were above 100, and more than 20% of the samples had counts exceeding 30. A total of 115 of the highest samples (taken as sample counts above 30) have been sent for conventional laboratory assays to determine the actual gold values in these samples and to find associated element values. No veins or other features were seen in the trenching to identify a primary structural gold source. The laboratory assays for these trench samples are expected to be returned by the end of November.

Diamond drilling commenced at Porto Estrela during the quarter, and 1,115 metres have been completed to date. It is expected that drilling will continue to mid-December and recommence late in January, weather permitting.

A notional 3,000m of diamond drilling was planned for the prospect and it is expected that this figure will be increased, allowing drilling to continue through to the end of the financial year.

Of the 4 holes drilled to date, only 2 holes have had core sample assays returned. Most of hole 1 was sampled and assayed, plus the lower section of hole 2 was also sampled and assayed. These assayed drill hole sections had intervals of dark granitic rocks which contained small but variable amounts of sulphide minerals and they were variably altered. These encouraging signs were not supported by the gold and pathfinder element assays which returned mostly background values. This contradiction between the trench results and the drill hole assay results has yet to be explained. The intervals in each hole which did contain elevated gold grades were localised in and adjacent to discrete structures. This mineralisation is considered to result from remobilisation of the gold and associated elements into these structures. Drilling has yet to intersect the primary mineralisation in this area.

The 1 million ounces of past gold production estimated in governmental reports, cannot be attributed to the small intercepts found to date.

| HOLE ID  | EAST   | NORTH   | RL  | EOH    | DIP | AZIMUTH | COMMENT    |
|----------|--------|---------|-----|--------|-----|---------|------------|
| PEDDH001 | 473634 | 8963210 | 295 | 251.80 | -52 | 340     | complete   |
| PEDDH002 | 473359 | 8963386 | 258 | 266.83 | -52 | 180     | complete   |
| PEDDH003 | 473477 | 8963660 | 266 | 159.95 | -52 | 180     | complete   |
| PEDDH004 | 473474 | 8963632 | 265 | 29.00  | -52 | 0       | abandoned  |
| PEDDH005 | 473469 | 8963632 | 266 | 25.50  | -52 | 0       | abandoned  |
| PEDDH006 | 473469 | 8963629 | 266 | 202.25 | -52 | 0       | complete   |
| PEDDH007 | 473833 | 8963544 | 262 | 180.00 | -52 | 200     | incomplete |
|          |        |         |     |        |     |         | (28/10/09) |

Table 1: Drill hole data for diamond drilling at Porto Estrela.

It is encouraging that increased disseminated and veinlet sulphide occurs in various rock types and also specifically occurs with rock alteration, and this is present in all holes drilled to date. The current drill holes are located within an area of 500m x 500m. The main prospect area measures more than 6km x 0.5km, so the work to date is within a small portion of the very large system. The initial drilling commenced where there was more rock outcrop, and with the trenching program, the greatest amount of geological control and understanding existed. Each drill hole will add to the knowledge base allowing the Company to develop and test various theories as to the location of the gold mineralisation which is responsible for the significant quantities of alluvial and colluvial gold previously mined at or near surface by garimpeiros.

A total of 150 additional core samples from holes 2 and 3, plus 115 of the highest gold count samples from the trenching have been despatched for assay in Perth, Australia. Results are expected by the end of November.

The system being explored offers encouragement to host large disseminated style ore bodies. The extent of workings, both along and across strike and structures, the very large past gold production from superficial mining, the style of alteration and the pervasive nature of the fluid reaction with the bedrocks of the region, all support this.

Shareholders are reminded that success is rarely achieved from the first stages of exploration. Time and information is required for the geological team to understand the complex geology and structures of the area to be able to identify and target the zones that have potential to host economic mineralisation. The current program is providing this information.

#### **Granting of additional tenements**

Cougar has now been granted all but 415km<sup>2</sup> of tenements applied for and available within the Peixoto Garimpeiro Reserve. The Company anticipates these final tenements should be offered and granted to Cougar in the near future. Preparations and planning are underway to commence

exploration activities in the early part of next year. Additional personnel will be added to facilitate this increased work program. Initial programs will consist of reconnaissance and follow up mapping and sampling of selected prospects and specific areas, some based on the results of exploration work conducted by Cougar in past years. This is expected to be followed up with trenching and shallow drilling, followed by deeper drilling of priority targets

The Company continues to seek potential JV partners for parts or all of the Alta Floresta Project, in order to advance the evaluation and potential discoveries in a timely manner. Several companies recently have indicated interest.

### **Pyke Hill Project**

The Pyke Hill Project is located 40km southeast of the Murrin Murrin Nickel Operation in Western Australia. The project hosts a JORC compliant Measured & Indicated Resource of 14.7 million tonnes grading 0.9% Ni and 0.06% Co for 131,621 tonnes of contained nickel metal (0.5% Ni cut-off).

No new work was conducted during this period, but the Company continues to seek third parties who may have an interest in participating in the project in the future.

## **BRAZILIAN MINERAL DRILLING BUSINESS**

Cougar's wholly owned mineral drilling business GeoLogica Sondagens reached full capacity with the current rig fleet in Brazil during the quarter. New projects commenced in Para, Mato Grosso and Rio Grande do Sul. In addition an extension to the current phosphate drilling program employing two diamond rigs was awarded.

Tragically the quarter began with a fatal accident on a diamond drill rig operating on a coal project in Santa Catarina, in the South of Brazil. This tragic incident occurred when the driller raised the mast of a drill rig into an overhead power line, electrocuting him at the controls. The Company has been in close contact with the family and work colleagues of the deceased to provide assistance and support. Management worked closely with the relevant authorities during an investigation of the accident in addition to our own internal investigation.

A 4,000m contract of RAB drilling on a gold project was awarded and commenced during the quarter. To deliver the contract a locally built RAB rig was sourced on a rental agreement. After some mechanical improvements to the equipment the contract was delivered with high productivity and no significant down time.

One diamond rig was allocated to drill for Cougar on the Apiacas project in Mato Grosso during the quarter. A second rig was mobilized to Mato Grosso during the quarter to drill on a gold prospect managed by an Australian exploration company.

A R\$1M contract was awarded allowing a return to a gold project in the state of Rio Grande do Sul. The rig was mobilized during September and production commenced in October. GeoLogica Sondagens now has significant experience drilling in this region with an established logistical support network in place.

The ongoing mechanical problems with the KL150 RC rig were resolved during the quarter and the rig return to full production in mid September. Since returning to service the rig has exceeded all previous production levels for drilling in iron ore and management are confident all mechanical issues have now been resolved.

## PLANNED ACTIVITIES FOR THE NEXT QUARTER

### Exploration - Alta Floresta Project:

- ❑ Continue the diamond drilling program at Porto Estrela prospect.
- ❑ Initiate field mapping and evaluation work in the Peixoto region to identify high priority targets for subsequent drill testing
- ❑ Continue to seek potential JV partners to advance the Alta Floresta Project in a timely manner.

### Mineral Drilling Business (GeoLogica Sondagens):

- ❑ Completion of the current iron ore exploration project and relocation of the KL150 rig to commence Reverse Circulation grade control trial
- ❑ Confirmation on two new large Reverse Circulation projects is anticipated
- ❑ Further progress the importation of a new RC rig from South Africa and associated equipment

For further information please contact the writer preferably by email using [r.swick@cgm.com.au](mailto:r.swick@cgm.com.au)

Yours faithfully



**RANDAL SWICK**  
Executive Chairman

**Background - About Cougar Metals NL:**

Cougar Metals NL is a Perth based exploration company listed on the Australian Stock Exchange (ASX Code: CGM). The Company is focused on the development of three primary “projects” - the Alta Floresta Gold Project in Brazil, the Pyke Hill Nickel Project in Western Australia and GeoLogica Sondagens, a mineral drilling business operating in Brazil.

**Alta Floresta:** The Alta Floresta Project is located in the north of Mato Grosso State in central west Brazil, covering an area of approximately 3,000km<sup>2</sup> within a 330km long portion of the Alta Floresta gold belt. Past production within this belt is estimated at five million ounces of gold. Cougar is undertaking a range of exploration activities at the project, including soil sampling and drilling, to identify both high-grade quartz vein gold systems and bulk tonnage, disseminated gold systems.

**Pyke Hill:** The Pyke Hill Project is located 40km southeast of the Murrin Murrin Nickel Operation in Western Australia. The project hosts a JORC compliant Measured & Indicated Resource of 14.7 million tonnes grading 0.9% Ni and 0.06% Co for 131,621 tonnes of contained nickel metal (0.5% Ni cut-off).

**GeoLogica Sondagens:** Cougar provides both surface diamond and reverse circulation drilling to the Brazilian mining industry through its wholly owned Brazilian subsidiary, GeoLogica Sondagens. Brazil offers further significant opportunities for the growth of the drilling business.