ASX Announcement 4 June 2010

Outstanding Gold Assays Returned from Surface Sampling at the Alta Floresta Project

HIGHLIGHTS

Apiacas District

- **Gold grades up to 1,420g/t in quartz veins confirm bonanza-style mineralisation at Ceara prospect**
- **Gold grades up to 44.9g/t and silver grades up to 364g/t in quartz veins and mineralised wallrock at Sitio Santa Fe prospect**

Peixoto District

- **Gold grades up to 626g/t in a 70 centimetre wide quartz vein reveal new Filao do Luizao prospect**
- **Confirmation of a 10 kilometre gold mineralised shear zone including Flor da Serra, Peteca and Queiroz prospects**

Cougar Metals NL (ASX:CGM) (**Cougar** or the **Company**) is pleased to announce that numerous high grade gold assay results have been returned from rock grab, chip and channel sampling programmes at the Company's Alta Floresta Gold Project in Mato Grosso State, Brazil (see Figure 1 below). The results were returned from samples collected during target development work in the Apiacas and Peixoto Districts.

The Company considers the results as extremely encouraging and confirming the high exploration potential of the Alta Floresta Gold Project.

Sampling at an additional nine targets is scheduled over the next month in the Peixoto district. When this work is finished, all targets will be ranked and prioritised for detailed work programmes. The Company anticipates that these programmes will include systematic trenching and induced polarisation ("IP") geophysical programmes, followed by drilling.

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Figure 1: Location of Alta Floresta Gold Project, Mato Grosso State, Brazil

Apiacas District

Ceara Prospect

Ceara Prospect is located within 400 metres of Porto Estrela Prospect, where Cougar recently announced results up to 9 metres averaging 7.8g/t gold (PEDDH007 from 79 metres[1]). Gold mineralisation at Ceara prospect (being bonanza gold grades in narrow sheeted veins hosted by weakly altered or fresh granite) is considered to be similar to a group of large gold deposits broadly referred to as "reduced intrusion related", which includes deposits such as the multi-million ounce Fort Knox deposit in the Tintina Gold Belt, Alaska.

Ceara hosts up to three narrow (2 centimetres wide), parallel quartz veins which are intermittently exposed in a 0.3 metre to 1.1 metre wide zone and over a strike length of more than 100 metres. The host rock comprises undeformed saprolitic granite with no evident hydrothermal alteration.

All samples were taken from a 60 metre long and 1.1 metre wide trench left after artisanal workings.

[1] Cougar Metals NL March 2010 Quarterly Report to ASX

Significant results, which are presented in Table 1 below, include:

- A 2 kilogram sample taken exclusively from the main quartz vein returned a bonanza grade of **1,420 g/t Au**;
- two 30 centimetre long horizontal channel samples, one taken from the southern trench wall and the second from the southern trench floor, returned **230g/t Au** and **105g/t Au**, respectively. Each of these channel includes three 2 centimetre wide quartz veins plus host saprolitic granite;
- two grab samples of saprolitic granite host rock plus quartz fragments from the trench wall returned **129g/t Au** and **327g/t Au**, respectively; and
- a 1 metre long horizontal channel, including two quartz veins plus the host granitic saprolite, from the northern trench wall returned a gold grade of **20.5g/t Au.**

The results showed high bismuth (up to 2,860ppm) and tellurium (up to 84ppm) and low base metals abundances, characteristics which are consistent with reduced intrusion related gold deposits.

Sitio Santa Fe Prospect

Sitio Santa Fe prospect is located in the western portion of the Apiacas District. Mineralisation occurs in sub-parallel sulphide-bearing quartz veins and veinlets in a 1.2 metre wide zone, hosted by hydrothermally altered felsic volcanic rock. Rock chip samples of quartz vein and altered volcanic rocks were taken from three old pits worked over about 650 metre of strike. Results include gold up to **45g/t** and silver up to **364g/t** (see Table 1 below).

Sample No	East (mE)	North (mN)	Prospect	Au (g/t)	Ag (g/t)	Detail Description
111388	33388	19834	Ceará	230	4	30cm channel of trench wall, including 3 quartz veins plus saprock
111390	33388	19834	Ceará	105	2	30cm channel of trench floor including 3 quartz veins plus saprock
111391	33400	19856	Ceará	1,420	39	2cm quartz vein
111392	33400	19856	Ceará	129	3	granitic saprolite including fragments of quartz vein
111393	33400	19856	Ceará	327	7	granitic saprolite including fragments of quartz vein
111394	33400	19866	Ceará	50.6	1.5	20cm horizontal channel including two 2cm quartz veins
111395	33400	19866	Ceará	17.3	bld	1m horizontal channel including two 2cm quartz veins plus granitic saprolite
111400	12433	22184	Sítio Santa Fé	44.9	364	pyritic quartz vein
111401	12433	22184	Sítio Santa Fé	6.52	33.5	hydrothermal altered volcanic rock
111403	12215	21880	Sítio Santa Fé	1.23	41	hydrothermal altered volcanic rock

Locations in Apiacas Local Grid; bld: below limit of detection (0.5g/t for silver)

Table 1: Significant Rock Chip and Channel Sampling Gold Assay Results, Apiacas District

Peixoto District

Flor da Serra, Peteca and Queiroz Prospects

The Flor da Serra, Peteca and Queiroz prospects are located in a 10 kilometre long corridor which encompasses several sub-parallel shear zones. The shear zones run along or close to the contact between quartz-diorite and syenogranite and are characterised by the presence of gneiss and mylonite. The shear zones are also associated with dolerite dykes and quartz veins.

Gold mineralisation occurs as sulphide-bearing quartz veins which pinch and swell over widths from 0.3 metres to 2.0 metres, and which are enclosed by chlorite-sericite-pyrite+/-chalcopyrite alteration.

Seventeen samples collected along the 10 kilometre corridor confirm the high-grade gold nature of these prospects, with grades varying from **3.6g/t Au** up to **145g/t Au** (see Table 2 below)**.** The results include rock chip samples across quartz veins up to 2 metres wide. Three samples of fresh granitic host rock did not give significant gold mineralisation.

Filao do Luizao Prospect

The Filao do Luizao prospect is located approximately 1 kilometre to the north of the Flor da Serra-Peteca-Queiroz corridor. Artisanal mining activity has resulted in a 570 metre long pit, now filled with water, and a 40 metre deep shaft from which 100 metres of driving and stoping is reported. The artisanal activity reportedly ceased due to low gold recoveries from gravity processing once mining encountered the deeper sulphide mineralisation.

The mineralisation consists of a 70 centimetre wide quartz vein hosted in a second order fracture system. Massive pyrite and chalcopyrite occur in open-voids or fractures within the veins, which are surrounded by up to 1.2 metres of chlorite-sericite-minor pyrite altered wallrock.

A channel sample across the quartz vein and altered wallrock returned **bonanza grades of** gold up to **626g/t Au**, and a total intercept of **1.9 metres averaging 250g/t Au**.

Sample No	East (mE)	North (mN)	Prospect	Au (g/t)	Ag (g/t)	Detail Description
120058	15404	30678	Flor da Serra	3.57	1	2m wide quartz vein
120059	15398	30680	Flor da Serra	4.44	bld	2m wide quartz vein
120063	15431	30654	Flor da Serra	14.10	1.5	Fragment of quartz vein
120053	16337	31096	Flor da Serra	40.20	92.5	60cm wide quartz vein
120054	16333	31102	Flor da Serra	26.60	42	60cm wide quartz vein
120074	16328	31102	Flor da Serra	5.00	4	12cm wide quartz vein
120044	20126	27946	Peteca	62.30	264	Pyritic quartz vein
120045	20126	27946	Peteca	120.00	36.5	Pyritic quartz vein
120046	19891	28474	Peteca	2.68	1.5	Mylonite with quartz veinlets, trace pyrite
120047	19891	28474	Peteca	145.00	26.5	Mylonite with quartz veinlets, trace pyrite
120048	19665	28626	Peteca	15.00	9	Fragments of quartz vein, pyritic
120049	19430	28306	Peteca	39.40	112	Mylonite with quartz veinlets, pyritic
120050	19625	28168	Peteca	21.20	7	Saprolite including brecciated quartz vein
120064	22372	26446	Queiroz	7.25	1	Quartz vein including fragments of host altered rock

120067	22366	26416	Queiroz	5.37	2.5	1m wide quartz vein
120055	19556	30524	Filao do Luizao	60.20	11.5	Hydrothermally altered wallrock
120056	19555	30524	Filao do Luizao	527.00	91	70 cm wide quartz vein with trace amount of pyrite
120057	19555	30524	Filao do Luizao	626.00	72	70 cm wide quartz vein with trace amount of pyrite
120001	27594	13704	Cidinha	90.00	3	Fragments of quartz vein
120002	27598	13716	Cidinha	3.05	bld	Fragments of quartz vein
120003	27594	13714	Cidinha	49.05	3	Fragments of quartz vein
120010	27145	13312	Cidinha	2.48	bld	Float quartz fragments
120012	27141	13312	Cidinha	4.92	1	10cm wide quartz vein
120016	27053	13304	Cidinha	4.23	bld	Quartz vein, pyritic
120018	27220	13572	Cidinha	2.94	bld	Quartz vein, pyritic
120019	27184	13578	Cidinha	1.72	1	Quartz vein, pyritic
120024	26941	13156	Cidinha	27.45	2	Quartz vein, pyritic
120025	26941	13154	Cidinha	20.80	2	Quartz vein, pyritic
120026	26905	13096	Cidinha	1.85	bld	Brecciated quartz vein, pyritic
120029	18989	13724	South Paraiba	17.40	2.5	40 cm wide brecciated quartz vein, pyritic
120030	18989	13724	South Paraiba	6.19	1.5	40 cm wide brecciated quartz vein, pyritic
120034	18998	13582	South Paraiba	3.17	bld	Fragments of quartz vein

All coordinates in Peixoto Local Grid; bld: below limit of detection (0.5g/t for silver)

Table 2: Significant Rock Chip and Channel Sampling Gold Assay Results, Peixoto District

Cidinha Prospect

Cidinha prospect area was subjected to past artisanal mining leaving a 500 metre long open pit and four shallow shafts to a maximum depth of 40 metres. The main structure is a black and fine-grained mylonite which hosts quartz veins and veinlets.

The main vein is about 40 centimetres wide whereas the secondary veins vary from 20 centimetres up to 1 metre in width.

Table 2 above includes significant results from eleven out of a total of 16 samples submitted for analysis.

South Paraiba Prospect

South Paraiba prospect includes a 250 metre long open pit and one shallow shaft to 32 metres depth, from which a 42 metre gallery was mined. The main structure is a green black and fine-grained mylonite which hosts a 40 centimetre wide brecciated quartz vein. Pyrite is the only accessory sulphide phase observed. The three samples of the quartz vein reported between **3.17g/t** and **17.4g/t Au**.

Current work and future work

The Company is continuing a programme of initial mapping and sampling over 15 gold targets in the Peixoto area. A follow-up programme of exploration will be prepared for each prospect and work carried out according to a ranking of priority. Cougar's aim is to advance the prospects to drilling stage as quickly and efficiently as possible.

For further information, please contact the undersigned on (08) 9381 1755.

Yours faithfully

RANDAL SWICK
Executive Chairman

The information in this report that relates to exploration results is based on information compiled by Dr Christopher Stephens who is consultant to the Company. Dr Stephens is Principal of CJ Stephens Consulting Pty Ltd and is a member of the Australian Institute of Geoscientists (AIG) and the Australasian Institute of Mining and Metallurgy (AusIMM). Dr Stephens has sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration, and to the activity which he is undertaking, to qualify as a Competent Person as defined in the 2004 edition of the "Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Dr Stephens consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

About Cougar Metals NL

Cougar Metals NL is a Perth based exploration company listed on the Australian Securities Exchange (ASX:CGM). The Company is focused on exploring the Alta Floresta Gold Project in central west Brazil, where past production is estimated at five million ounces of gold. The Company also operates a growing mineral drilling business in Brazil and Uruguay, providing surface diamond, reverse circulation and RAB drilling services to the Brazilian and Uruguayan mining industries, and holds the mineral rights to the Pyke Hill JORC compliant Resource of 14.7mt @ 0.9% Ni and 0.06% Co.

Sampling Technique and Quality Control

Chip sample - typically comprises 2kg of sample material taken exclusively from one single rock unit.

Channel sample –a horizontal channel approximately 10 cm high and 10 cm deep for a determined length which can be a trench wall, trench floor or any natural wall. Usually channel samples are 1 m maximum length. Samples are collected in plastic bags and labelled in the field.

Grab samples correspond to rock fragments (±2kg) usually found as pieces left from old workings or from outcrops.

Sampling Preparation

At Cougar's sample preparation facility in Peixoto de Azevedo, samples are placed into trays and dried at 150°C for one hour. After drying, the entire sample is crushed to -2 mm size. A Jones splitter is used to take a 1kg sub-sample, which is ground to -150 mesh. A 125gm homogenized pulp fraction is placed in a plastic bag, labelled and sent for assaying. The residual split is stored for future analyses if necessary.

Quality control

Reference standards are routinely submitted to monitor a range of assay grades. Assay results for the standard samples are routinely monitored for both precision and accuracy.

Sample analysis

Samples were analysed by UltraTrace Laboratory in Perth, Western Australia. Au, Pt and Pd are analysed by 40gm fire-assay; Ag, As, Bi, Pb, Te, W, Sn by ICP-MS and Cu, K, Fe, K, Zn, S by ICP-OES.