



Atacama Pacific's Gold Mineralogical Studies Confirm Cerro Maricunga is Amenable to Heap Leaching

TORONTO, February 2, 2011 – Atacama Pacific Gold Corporation (TSXV:ATM) (“Atacama Pacific”) is pleased to report that gold mineralogical studies, undertaken to assess the mineralogical factors which may influence gold recoveries during heap leach processing, has determined that principal form of gold at its Cerro Maricunga Gold Project is fine grained native gold of a high purity, approximately 97%. Atacama Pacific's 100% owned Cerro Maricunga Gold Project is located in 140 kilometres northeast of Copiapo, Chile and 20 kilometres south of Kinross Gold's La Coipa mine.

The small grain size and high purity of the gold explain the fast leach times that were observed in recent column test work (see Atacama Pacific press release dated December 9, 2010) with 75% to 90% of the extractable gold obtained in the first seven days of the tests. The mineralogical studies confirm that the Cerro Maricunga gold mineralization is amenable to heap leaching.

Table 1, below, summarizes the characteristics of the gold observed in the two composite samples. The total percentage of free or liberated and exposed gold is 88.7% in Composite 1 and 80.0% in Composite 2. These percentages compare favourably with the gold recoveries achieved from the column leach tests of 89% from Composite 1 and 79% from Composite 2.

Table 1 – Gold Characteristics and Associations

Nature of Gold Mineralization	Composite 1 (%)	Composite 2 (%)
Free / Liberated Gold Grains		
greater than 10 microns	3.8	2.0
less than 10 microns	32.7	31.1
Exposed Gold Grain Associations		
iron oxide – hematite	6.9	1.3
iron oxide – magnetite	13.7	16.2
oxide/rock composite particles	8.6	7.3
rock minerals	23.0	22.1
Subtotal - Free / Liberated & Exposed Gold	88.7	80.0
Enclosed Gold Grains (potentially recoverable)	5.9	11.8
Submicroscopic (refractory – not recoverable)	5.5	8.3
Subtotal - Enclosed & Submicroscopic Gold	11.4	20.1
Total *	100.1	100.1

** Total percentages exceed 100% as a result of rounding errors.*



Gold is preferentially associated with iron oxides; however, rock mineral particles are principal carriers of gold. As expected, sulphides, essentially pyrite, were rarely observed (<0.1%) in the samples as the gold mineralization is associated with highly oxidized breccias to depths in excess of 450 metres below surface. The sub-microscopic gold is dominantly hosted by iron oxides.

The primary rock mineralogy is similar in both composite samples and comprises approximately 60% feldspars (oligoclase >> microcline), less than 20% quartz, 10% clays (dominantly smectite), 5% dolomite and 5% iron oxides.

Analysis Methodology

The characteristics (deportment) of the gold was determined from two 12 kilogram sub-samples of the Cerro Maricunga master composite samples 1 and 2 which were used in the column leach permeability testing, results from which were reported by Atacama Pacific on December 9, 2010. Composite 1 was ground to 80% passing 160 microns and Composite 2 was ground to 80% passing 110 micron. The gold grains were concentrated by gravity methods from ten kilograms from each sample material with two kilograms stored for future work. A sub-set of the grains was extracted for analysis with several micro-beam techniques to fully characterize all forms and carriers of gold. Each form/carrier of gold was assessed independently and the sum of all mineralogically accounted for gold grains should not deviate more than 10% from the assayed value. A scanning electron microscope equipped with an energy dispersive X-ray analyzer was used to determine the composition of gold grains, microscopy/stereoscopy to size, determine the shape and association of gold mineral grains, secondary ion mass spectrometry to quantify sub-microscopic gold, time of flight laser ionisation mass spectrometry to determine surface contaminants which hampered complete gold dissolution.

The gold deportment study was completed by AMTEL (Advanced Mineral Technology Laboratory Ltd), London, Canada. AMTEL specializes in assisting in the selection of the recovery process for new gold projects and process optimization for existing gold beneficiation plants.

About Atacama Pacific Gold Corporation

Atacama Pacific's principal business is the acquisition, exploration and development of precious metals resource properties in Chile. Atacama Pacific's principal mineral property is the Cerro Maricunga oxide-associated, breccia-hosted gold project, located in Region III, 140 kilometres by road northeast of the city of Copiapo. Atacama Pacific's goal is to become a producer of gold through the exploration and development of the Cerro Maricunga Gold Project. Atacama Pacific also owns four other mineral properties within close proximity to the Cerro Maricunga Project and a fifth property in Chile's Region I.



National Instrument 43-101 Compliance

Under National Instrument 43-101 (“NI 43-101”) of the Canadian Securities Administrators, the qualified person for the Cerro Maricunga Property is Michael Easdon, a resident of Santiago, Chile and a Professional Geologist registered with the State of Oregon, USA. Mr. Easdon, an independent qualified person as defined by NI 43-101, has reviewed and verified the contents of this press release.

For further information please contact:

Carl B. Hansen
President and CEO
416 861 8267

or visit Atacama Pacific’s website at www.atacamapacific.com

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