



## Atacama Pacific Announces Positive Metallurgical Results from Cerro Maricunga Gold Project

### Column Leach Tests Return Gold Recoveries Of Up To 89%

**TORONTO, December 9, 2010 – Atacama Pacific Gold Corporation** (TSXV:ATM) (“Atacama Pacific”) is pleased to report that column percolation leach tests returned gold recoveries of up to 89% from samples from Atacama Pacific’s Cerro Maricunga Gold Project, located 140 kilometres east of Copiapo, Chile and 20 kilometres south of Kinross Gold’s La Coipa mine.

Gold recoveries from three column leach tests ranged from 79% to 89% with the higher gold recovery associated with higher gold grades (see Table 1). Column tests 1 and 2a were conducted utilizing material crushed to 80% passing 19 mm and column test 2b was conducted on material crushed to 80% passing 9.5 mm. Crush size had no significant impact on gold recoveries as shown from a comparison of results from Composite 2a (19 mm crush and 79% Au recovery) and Composite 2b (9.5 mm crush and 80% Au recovery).

The column tests, conducted by Kappes, Cassidy and Associates (“KCA”), Reno, Nevada, were run for 57 days with leach recoveries levelling out after only seven days indicating fast leach kinetics. Column tests were not optimized for sodium cyanide (“NaCN”) consumption with 1.03 to 1.19 kg/t NaCN consumed. Projected NaCN consumption in production heaps is typically 25 to 33% of the NaCN consumption achieved from laboratory testing. All three column tests showed no slumping which is an indication of good potential permeability in production heaps.

“The high gold recoveries and excellent column permeability clearly demonstrates that the Cerro Maricunga gold mineralization is amenable to heap leach processing methods at a coarse crush size”, said Carl B. Hansen, President and CEO of Atacama Pacific. “As part of our ongoing 19,100 metre Phase II drill program, we are continuing to collect material for further metallurgical testing with a particular focus on examining gold recoveries at coarser crush sizes and optimizing cyanide consumption.”

**Table 1 – Summary of Column Leach Test Results**

<b>Composite Test</b>	<b>Crush Size (mm)</b>	<b>Head Grade (g/t Au)</b>	<b>Gold Recovery (%)</b>	<b>NaCN Consumption (kg/t)</b>	<b>Hydrated Lime (kg/t)</b>	<b>Additional Lime (kg/t)</b>	<b>Slump Percentage (%)</b>
1	19.0	1.13	<b>89</b>	1.03	3.08	1.01	0
2a	19.0	0.76	<b>79</b>	1.06	3.07	1.01	0
2b	9.5	0.79	<b>80</b>	1.19	3.06	1.01	0



Atacama Pacific's metallurgical testing program is managed by AMTEL (Advanced Mineral Technology Laboratory Ltd), London, Canada.

### Metallurgical Test Details

Three column percolation leach tests were conducted utilizing two composited samples of quartered HQ diamond drill core from Atacama Pacific's Cerro Maricunga Phase I drill program completed in April 2010. One column test was completed utilizing material from Composite 1 which graded 1.13 grams per tonne gold ("g/t Au") and was crushed to 80% passing 19 mm. A further two column tests were completed utilizing material from Composite 2 crushed to two different sizes to determine the impact of crush size on gold recoveries. Composite sample 2a graded 0.76 g/t Au and utilized material crushed to 80% passing 19 mm and composite sample 2b graded 0.79 g/t Au and utilized material crushed to 80% passing 9.5 mm.

Approximately 29.5 kilograms of composite sample material was stacked to a height of 1.6 metres in 127 mm diameter columns. The columns were run as continuously drained leach tests with alkaline cyanide solution continuously cycled through the columns at a rate of 10 to 12 litres per hour per square metre of column surface area. The initial leach solution for each column contained 1.0 gram NaCN per litre ("g NaCN/L") of solution and during the test, the continued cyanide strength was maintained at a target level of 0.5 g NaCN/L. Protective alkalinity was maintained at a pH level of 9 to 11 by the initial addition of hydrated lime and cement during the column setup and additional lime was added, if necessary, to maintain the alkalinity.

The column tests continued for a period of 57 days. Leach solutions were tested daily for pH and NaCN, gold and silver content. Starting on leach day 44, the columns were allowed to rest from leaching for seven days to determine if gold extractions would increase after the rest period. After the seven day rest period, the columns were leached for an additional 3 days and rested for a further 4 days. Gold recoveries, as reported in Table 1, varied from 79 to 89%.

The height of each column was measured before and after leaching to calculate the percent slump of the sample material. The percent slump gives an indication of potential permeability problems in production heaps. All three column tests showed no slumping with a percent slump of 0%.

Upon completion of the 57 day leach test, all columns were dumped, reloaded and releached for a period of 14 days to determine if additional gold extraction was possible. The gold extraction from this period is not included in the results presented in Table 1. Approximately 1% additional gold extraction was observed during the additional 14 day period.

Column test extraction results were based upon granular activated carbon assays vs. the calculated head grade (carbon assays plus tail assays).



## **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 primary 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 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](http://www.atacamapacific.com)*

## **FORWARD LOOKING STATEMENTS**

This release contains forward-looking statements, including predictions, projections and forecasts. Forward-looking statements include, but are not limited to, statements with respect to completion of economic assessments, exploration results, the success of exploration activities generally, mine development prospects, and future gold production. Often, but not always, forward-looking statements can be identified by the use of words such as "plans", "planning", "expects" or "does not expect", "continues", "scheduled", "estimates", "forecasts", "intends", "potential", "anticipates", "does not anticipate", or "belief", or describes a "goal", or variation of such words and phrases or state that certain actions, events or results "may", "could", "would", "might" or "will" be taken, occur or be achieved.

Forward-looking statements involve known and unknown risks, future events, conditions, uncertainties and other factors which may cause the actual results, performance or achievements to be materially different from any future results, prediction, projection, forecast, performance or achievements expressed or implied by the forward-looking statements. Such factors include, among others, the results of due diligence activities, the interpretation and actual results of current exploration activities; changes in project parameters as plans continue to be refined; future prices of gold; possible variations in grade or recovery rates; failure of equipment or processes to operate as anticipated; labour disputes and other risks of the mining industry; delays in obtaining governmental approvals or financing or in the completion of exploration, as well as those factors disclosed in Atacama Pacific's publicly filed documents. Although Atacama Pacific has attempted to identify important factors that could cause actual actions, events or results to differ materially from those described in forward-looking statements, there may be other factors that cause actions, events or results not to be as anticipated, estimated or intended. There can be no assurance that forward-looking statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Accordingly, readers should not place undue reliance on forward-looking statements.

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