



## Atacama Pacific Announces Positive Preliminary Economic Assessment for the Cerro Maricunga Oxide Gold Project, Chile

**TORONTO, January 28, 2013** – Atacama Pacific Gold Corporation (TSXV:ATM) (“Atacama Pacific”) is pleased to announce the results from a Preliminary Economic Assessment (“PEA”) for its 100% owned Cerro Maricunga oxide gold project located in Chile’s Maricunga Mineral Belt. The PEA was prepared by NCL Ingeniería y Construcción SA (“NCL”), Santiago, Chile, in accordance with Canadian National Instrument 43-101 “Standards of Disclosure for Minerals Projects” (“NI 43-101”).

### **Preliminary Economic Assessment Highlights** *(All amounts in US dollars)*

- Potential for average annual gold production, over the first five years, of 298,000 ounces
- Projected total gold production of 2.7 million ounces over a 10-year mine life
- Life of mine estimated operating cash costs of \$652 per ounce gold (“/oz Au”)
- Preliminary capital cost estimate of \$514.6 million with sustaining capital of \$249.0 million

The PEA demonstrates the potential economic viability of the Cerro Maricunga project as noted in Table 1.

**Table 1 - Economic Summary**

	Before Tax Case		After Tax Case	
	Base <i>(\$1,450/oz Au)</i>	Spot <i>(\$1,700/oz Au)</i>	Base <i>(\$1,450/oz Au)</i>	Spot <i>(\$1,700/oz Au)</i>
IRR (%)	33.9%	51.2%	26.6%	40.5%
NPV 5% Discount (US\$ M)	\$741	\$1,247	\$531	\$923
Average Annual Cash Flow (US\$ M)	\$189	\$256	\$161	\$213
Payback Period (years)	2.5	1.7	3.1	2.2

*Note - Assumes 100% equity financing*

“We are very pleased with the robust results from the PEA for our Cerro Maricunga oxide gold deposit,” said Carl Hansen, President and CEO of Atacama Pacific. “With a processing rate of over 80,000 tonnes per day and the potential for average annual production of 298,000 ounces of gold over the first 5 years, Cerro Maricunga is globally one of the largest oxide gold projects under consideration for development. The high processing rate and positive metallurgical characteristics combined with a low 1.6 to 1 strip ratio, cost effective open pit mining and heap leach processing methods establish the potential for an economically strong project with quick payback on capital expenditures for a project of this scale. With the PEA completed, we will move forward towards a feasibility study and will examine the opportunities to potentially improve the results of the PEA by increasing the overall resource through additional drilling and leaching coarser crushed material in a valley-fill heap leach scenario.”

The PEA is preliminary in nature and includes Inferred Mineral Resources that are considered too speculative geologically to have the economic considerations applied to them that would enable



them to be categorized as Mineral Reserves. There is no certainty that the PEA results will be realized. The PEA is not a preliminary feasibility study or feasibility study. The PEA has been completed to a level of accuracy of +35% to -10%.

### **Economic Analysis**

The PEA calculates a base case pre-tax net present value at a 5% discount rate (“NPV<sup>5%</sup>”) of \$741 million, a pre-tax internal rate return (“IRR”) of 33.9% and an average pre-tax cash flow from operations of \$189 million per year. Table 1 summarizes the key economic results of the PEA. The base case was calculated at a gold price of \$1,450. The three-year historical gold price, as of January 1, 2013, was approximately \$1,490/oz Au.

The following operational parameters and costs were used in the PEA:

Processing Rate ( <i>tonne per day</i> )	80,000
Gold Recoveries	79.5%
Mining Costs ( <i>\$/tonne mined</i> )	\$1.43
Processing Costs ( <i>\$/tonne</i> )	\$2.56
G&A Costs ( <i>\$/tonne processed</i> )	\$0.53

### **Mining and Processing**

Projected total gold production over a potential 10-year mine life is 2.7 million ounces at an average operating cash cost of \$652/oz Au. The gold is produced from heap leaching 261 million resource tonnes with an average grade of 0.40 grams per tonne gold (“g/t Au”). An average life of mine strip ratio of 1.6 to 1 (waste to resource) was calculated. Table 2 summarizes a potential mining schedule base on this mine life.

Conventional open pit mining methods have been considered in mining the Cerro Maricunga deposit. The PEA considers utilizing a fleet of 16 haul trucks (Komatsu 9300E – 290 tonne), five diesel shovels (Komatsu PC5500 – 38 yard), five production drills (Sandvik DR460 – 10 5/8 inch) and various ancillary equipment. No additional production fleet equipment is considered during the mine life. The preliminary open pit design incorporates 10 metre (“m”) high benches with 40 metre wide main haul roads at a maximum grade of 10% and pit walls at an average 42 degree angle.

The PEA envisions that oxide mineralization will be trucked to a primary gyratory crusher facility, with a minimum capacity of 4,200 tonne per hour, located to the immediate west of the Lynx Zone where it will be crushed to 165 mm. The primary crushed material will then be conveyed approximately 3.4 kilometres (“km”) to feed three secondary cone crushers and three tertiary cone crushers. The final crushed product, measuring (P<sub>80</sub>) 19 mm, will be conveyed 2.8 km to the heap leach pads.



**Table 2 - Conceptual Mining and Processing Schedule**

<b>Year</b>	<b>Resource</b> <i>('000 tonnes)</i>	<b>Waste</b> <i>('000 tonnes)</i>	<b>Strip Ratio</b>	<b>Grade</b> <i>(g/t gold)</i>	<b>Production</b> <i>(oz Au)</i>
-1	6,624	4,776	0.7	0.38	-
1	22,576	27,874	1.2	0.44	318,500
2	29,200	55,350	1.9	0.41	309,100
3	29,200	55,350	1.9	0.41	305,200
4	29,200	55,350	1.9	0.40	296,600
5	29,200	55,350	1.9	0.35	260,900
6	29,200	55,273	1.9	0.36	268,700
7	29,200	49,929	1.7	0.38	282,600
8	26,759	41,040	1.5	0.40	269,700
9	20,685	18,615	0.9	0.47	247,400
10	8,537	3,132	0.4	0.58	129,000
11	742	118	0.2	0.66	12,800
<b>Totals</b>	<b>261,123</b>	<b>422,157</b>	<b>1.6</b>	<b>0.40</b>	<b>2,700,500</b>

Crushed material would be stacked on the heap leach pad by a radial stacker in 50 by 50 metre modules in layers 10 m thick. Every five layers, a geomembrane will be placed on the heap to separate subsequent layers from the underlying material. The final leach pad height will be approximately 100 m. A pad irrigation rate of 10 liters/hour/metre<sup>2</sup> has been considered. Sodium cyanide and lime consumption are expected to be 0.24 kilograms per tonne (“kg/t”) and 1.4 kg/t respectively. The pregnant leaching solution containing gold would then be pumped to a conventional carbon adsorption facility (ADR plant) where gold from process solutions would be recovered to a final gold doré product.

Average gold recoveries of 79.5% have been used in the PEA based on bottle roll and column metallurgical testing. To date, over 75 bottle roll tests and 20 column tests have been completed on material from the Cerro Maricunga deposit. The majority of the column tests have been completed on mineralization crushed to 19 millimetres (“mm”), however, 78% gold recoveries were also achieved on material crushed to 50 mm and 77% recoveries were achieved on 100 mm crushed material. In order to evaluate gold recoveries at various crush sizes, further metallurgical test work is continuing.

### **Capital Requirements**

The PEA initially estimates capital expenditures for the potential development of an open pit mining and conventional heap leach processing operation at the Cerro Maricunga project at \$514.6 million, which includes contingencies of \$41.3 million and Engineering, Procurement, and Construction Management (“ECPM”) costs of \$28.9 million. A breakdown of these costs is provided in Table 3. Additional capital requirement during the life of the mine, including annual heap leach pad expansions and closure costs total \$249.0 million, which includes a 5% contingency. The capital



costs presented are based on quotes received from equipment manufactures or contractors. The PEA assumes, on the basis of quotes received, that the mining fleet will be acquired through a manufacturer lease arrangement payable over the life of the mine at a total cost of \$214.1 million.

**Table 3 – Preliminary Summary of Capital Expenditures**

Item	US\$ (millions)
<b>Open Pit</b>	
Pre-strip	17.1
1 <sup>st</sup> Fleet Lease Payment	14.7
Mining Support (incl. truck shop)	27.6
<b>Processing</b>	
Crushing & Stockpiles	108.2
Leach Pads	93.2
ADR & EW/Smelting	29.5
Indirect	55.6
<b>Infrastructure</b>	
Water	84.8
Warehouse, Office, etc	7.7
Roads	3.0
Indirect	3.1
<b>Capital Costs (without contingencies)</b>	<b>444.5</b>
Contingencies**	41.3
EPCM**	28.9
<b>Total Capital</b>	<b>514.6*</b>

\* The PEA has been completed to a level of accuracy of +35% to -10%.

\*\* Contingencies are 10% and EPCM are 7% of capital expenditures excluding Pre-strip and 1<sup>st</sup> Fleet Lease Payment

## Taxes

The federal Chilean tax rate used in the PEA is 20%. In addition, included in the economic analysis is the variable Chilean tax on mining activities levied on operational income.

## Resource Estimate

On September 25, 2012, Atacama Pacific published a global unconstrained resource estimate summarized in Table 4. The pit constrained resource estimate used in the preliminary open pit mine model, Table 5, includes approximately 75% of the Measured and Indicated and 33% Inferred resources from the global unconstrained resource estimate.

The pit constrained resource estimate includes those resources which lie within the boundary of a conceptual open pit designed at an average gold price of \$1,400 using the mining and processing parameters and associated costs outlined in the PEA. The cut off grade used in the estimation of the pit constrained resource is variable at 0.18 g/t Au up to the third year and at 0.15 g/t Au from year 4 to the end of the proposed mine life.



**Table 4 - Cerro Maricunga Oxide Gold Project Global Unconstrained Resource Estimate**

Cut-off (g/t Au)	Measured		Indicated		Measured and Indicated			Inferred		
	Tonnes (millions)	Grade (g/t Au)	Tonnes (millions)	Grade (g/t Au)	Tonnes (millions)	Grade (g/t Au)	Gold Ounces (000's)	Tonnes (millions)	Grade (g/t Au)	Gold Ounces (000's)
0.2	60.4	0.44	187.5	0.41	247.9	0.42	3,344	226.3	0.36	2,654
0.3	40.7	0.53	123.1	0.50	163.9	0.51	2,667	120.7	0.47	1,810
0.4	24.5	0.64	71.2	0.61	95.8	0.62	1,912	57.8	0.60	1,118
0.5	15.1	0.77	42.8	0.72	57.9	0.74	1,370	32.3	0.73	754

**Table 5 - Cerro Maricunga Oxide Gold Project Pit Constrained Resource Estimate**

<i>Constrained at \$1,400/oz Au</i>	Tonnes	Grade	Gold Ounces
	(millions)	(g/t Au)	(000's)
<b>Measured</b>	48.6	0.43	668
<b>Indicated</b>	137.1	0.41	1,791
<b>Measured and Indicated</b>	185.8	0.41	2,460
<b>Inferred</b>	75.4	0.39	938

The PEA includes Inferred Mineral Resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as Mineral Reserves. There is no certainty that the PEA results will be realized. The PEA is preliminary in nature and is not a preliminary feasibility study or feasibility study. The mining study for the PEA was developed by NCL. The parameters of the mining study were used to develop the constrained resource.

#### **Water**

The PEA considers that water will be transported by pipeline from Atacama Pacific's water exploration concessions, under option from AMX de Chile S.A., located approximately 100 km north to the Cerro Maricunga project. Atacama Pacific has received a quote of \$85 million for the construction of the pipeline. Power for the pumping stations will be supplied by leased generators.

Water requirements of 100 litres per second are projected. Atacama Pacific is presently completing water exploration drilling and has encountered significant water flows in the first two holes drilled on the exploration concessions. The acquisition of other water sources is also being considered.

#### **Permitting**

Chile has an established and clearly defined and regulated permitting process for development projects. In order to develop a mining and processing operation at the Cerro Maricunga project,



an Environmental Impact Assessment (“EIA”) must be obtained from the Chilean environmental authority, Servicio de Evaluación Ambiental (“SEA”). The EIA process takes 6 to 18 months to complete and takes into consideration all aspects of a proposed development. Once permits of this nature are granted, Atacama Pacific would have a five year period to start construction of the project.

Atacama Pacific has been gathering baseline environmental information for more than two years and has contracted Arcadis Chile S.A. to prepare baseline study documentation. Further works, including basic engineering, geotechnical drilling, approval of water extraction rights, are necessary before an EAI application can be submitted for approval.

### **Project Opportunities and Risks**

Atacama Pacific has identified a number of opportunities that may positively impact the economics of the Cerro Maricunga project which will be evaluated. These opportunities include but may be not be limited to the following:

- Expansion of the current resource and reduction of the strip ratio through positive results from the current drilling program;
- Examining the impact of increasing the crush size from 19 mm to coarser crush sizes including run of mine;
- Evaluating contracting crushing and conveying operations,
- Sale and leaseback of water supply; and
- Adoption of valley fill heap leach processing within a valley adjacent to the deposit.

Aside from the risks typical of all large scale mining projects, such as, but not limited to, confidence in mineral resource estimates, metallurgical performance, capital and operating cost increases, commodity price decreases, securing reasonably priced project financing, etc., principal project risks specific to Cerro Maricunga include the following:

- Identification or acquisition of sufficient water resources for the project;
- Ability to acquire water rights and mining and other permits while maintaining a reasonable development timeline; and
- The ability to attract and retain experienced professionals given the competitive state of the global mining industry.

### **Project Developments**

Atacama Pacific is currently undertaking a 20,000 m infill drilling program with the goal of converting existing inferred category resource to the measured and indicated category as well as targeting areas within the projected \$1,400/oz Au pit shell which have not been drilled to date and are considered unmineralized in the PEA.



Upon completion of the currently drilling program, Atacama Pacific will prepare an updated pit confined resource estimate that should be available early in the third quarter of 2013. The updated resource estimate will form the basis for a feasibility study intended to commence shortly thereafter.

### **PEA Study Basis and Assumptions**

This study constitutes a PEA for NI 43-101 purposes and is preliminary in nature. It includes Inferred Mineral Resources that are considered too speculative geologically to have the economic considerations applied to them that enable them to be categorized as Measured or Indicated Resources or Mineral Reserves. Mineral Resources used in this study are not Mineral Reserves and require further work to demonstrate their economic viability. There is no certainty that the Inferred resources will be converted to Measured or Indicated resources. There is no certainty that the PEA results will be realized. Since the analysis is based on a cash flow estimate, it should be expected that actual economic results might vary from these results. The PEA has been completed to a level of accuracy of +35% to -10%. The PEA is not a preliminary feasibility study or feasibility study.

The NI 43-101 compliant PEA study was prepared by NCL for Atacama Pacific based on inputs from the following entities:

NCL Ingeniería y Construcción SA	– Mining and Project Implementation
Alquimia Conceptos S.A.	– Process and Infrastructure
Arcadis Chile S.A.	– Environmental Permitting and Closure

Key assumptions used in the economic analysis in the PEA include the following:

Gold Price (US\$/oz Au)	\$1,450
Exchange Rate (Chilean Peso/US\$)	500
Fuel Price WTI (\$/barrel)	\$90
Electricity (MWh)	\$115

### **National Instrument 43-101**

Carlos Guzmán, a mining engineer, Fellow of the Australasian Institute of Mining and Metallurgy and a registered member of the Chilean Mining Commission, is the independent qualified person as defined by National Instrument 43-101 (“NI 43-101”) for the Preliminary Economic Assessment for the Cerro Maricunga project. Mr. Guzmán is a Principal and Project Director with NCL Ingeniería y Construcción Ltda., Santiago, Chile and has reviewed, approved and verified the content of this press release.

Michael Easdon, a professional geologist registered with the State of Oregon, USA, is the independent qualified person for the current exploration program.





John Wells, a mining engineering with Alquimia Conceptos S.A., Chile, is the independent qualified person who prepared the information related to processing and site infrastructure.

Dr. Eduardo Magri, a mining engineer (University of Witwatersrand) and a Fellow of the Southern African Institute of Mining and Metallurgy, is the independent qualified person for the Cerro Maricunga resource estimate released September 25, 2012. The Cerro Maricunga resource estimate was prepared under Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") Definition Standards (2005). NCL Ingeniería y Construcción Ltda. undertook to prepare and is responsible for the resource estimate under the supervision of Dr. Eduardo Magri and Antonio Couble (NCL Associate). The \$1,400 pit constrained resource estimate was estimated through the use of economic and mining parameters applied to the global resource.

Atacama Pacific will file a new NI 43-101 Technical Report on the Cerro Maricunga Oxide Gold project with the applicable Canadian securities regulatory authorities within 45 days of this press release.

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## FORWARD LOOKING STATEMENTS

This news release contains forward-looking statements, including predictions, projections and forecasts. Forward-looking statements include, but are not limited to, statements with respect to the PEA, including the potential for annual gold production in the first five years of production of 298,000 ounces, total gold production of 2.7 million ounces over a 10.1 year mine life, initial life of mine estimated operating cash costs of \$652 /oz Au, preliminary initial capital cost estimate of \$514.6 million with sustaining capital of \$249.0 million, pre-tax pay-back period of 2.5 years at \$1,450/oz Au and 1.7 years at \$1,700/oz Au, pre-tax NPV of \$741 million at \$1,450/oz Au and a 5% discount rate After-tax NPV5% of \$531 million, pre-tax NPV5% of \$1,247 million and an after-tax NPV5% of \$923 million at \$1,700/oz Au, pre-tax IRR of 33.9% at \$1,450/oz Au (after-tax IRR of 26.6%), statements regarding the expectation to increase mineral resources, statements regarding expectations for receipt of permits and environmental approvals, exploration results (including with respect to water resources), the success of exploration activities generally, mine development prospects, and potential 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, changes in economic parameters and assumptions, the interpretation and actual results of current exploration activities; changes in project parameters as plans continue to be refined; the results of regulatory and permitting processes; 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; the results of further economic and technical studies, 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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