

Rio Alto Mining Limited: La Arena Gold Oxide Reserves Increased to 1.08mm oz at Au Price of \$1,200

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Drilling, metallurgical test work and new resource model add 22% to reserves even after stacking 261,232 oz in 2013

VANCOUVER, BRITISH COLUMBIA -- (Marketwired - Feb 24, 2014) - [Rio Alto Mining Ltd.](#) (Rio Alto" or the "Company") (TSX:RIO) (BVL:RIO) (NYSE:RIOM) (DBFrankfurt:MS2) is pleased to announce that it has completed updated oxide mineral resource and reserve estimates for its 100% owned La Arena Mine located in Peru. All resources and reserves described below are as of December 31, 2013, and take into account the 261,232 oz of gold stacked during 2013.

The updated oxide mineral resource and reserve estimate is limited to the Calaorco open pit area and includes an adjacent gold colluvium zone and three nearby oxidized intrusive zones. An update of sulphide resources and reserves at La Arena will be estimated and published later this year, when a feasibility study on sulphide mining (Phase II) is planned to be completed.

The highlight of the new estimate is an increase in oxide (i.e. heap leachable) Proven and Probable (P&P) Reserves to 1.08mm oz, comprising 78.2mm tonnes at an average grade of 0.43 g/t gold. This reserve has an extremely low forecast LOM stripping ratio of 0.76:1, reserve, versus the 1.47:1 strip ratio in last year's reserve.

The P&P reserve is the mineable portion of a pit-constrained oxide Measured and Indicated Resource of 1.33mm oz gold. The reserve estimation was performed based on an assumed gold price of \$1200/oz, with the resource constrained by a pit based on \$1400/oz gold (the comparable gold prices used for YE12 resources/reserves were \$1400 and \$1800/oz, respectively).

Updated mining, processing and G&A costs based on the Company's actual results over the mine's operating history were used in the new estimate, as was metallurgical data collected over the course of 2013 for intrusive-hosted gold oxide material. This intrusive ore had previously been excluded from the reserve. The third generation resource model this release is based on incorporates the results of mining to date. To this point actual ounces mined have been significantly greater than indicated by the resource model - this new model is expected to give a more accurate estimate of in situ gold ounces.

Oxide gold mineralization still remains open in several areas, offering the opportunity for continuing growth in resources and reserves. Rio Alto is planning a 14,200 meter drill program in 2014 with a view to expanding the oxide resource base.

Rio Alto President & CEO Alex Black commented, "We are extremely happy with the result of our 2013 geological and metallurgical programs. Even after stacking 261,232 ounces in 2013, our Proven Reserves grew by 452,232 oz - accounting for depletion this represents a 51% increase over our year-end 2013 reserve, and this is in spite of using materially lower assumed gold prices. Our planned 2014 drill program has the potential to continue this resource and reserve growth, further adding to the heap leach mine life at La Arena".

TECHNICAL DETAILS

The previous resource and reserve estimate for oxide mineralization were published in the La Arena Project Technical Report with an effective date of January 1, 2013 prepared on behalf of the Company by Kirk Mining Consultants Pty Ltd (the "January 2013 Report"). Comparisons between resource and reserve estimates at January 1, 2014 and the January 2013 Report are set out below. The January 2013 Report may be found within the Company's SEDAR profile at www.sedar.com.

The key parameters used to constrain the oxide resources and reserves within pit shells optimized using Whittle pit optimization software were:

Key Input Parameters for Oxide Resources and Reserves Pit Optimization	January 1, 2014		January 2013 Report	
	Reserves	Resources	Reserves	Resources
Gold price per oz	\$1200/oz	\$1400/oz	\$1400/oz	\$1800/oz
Payable proportion of gold	0.999	0.999	0.999	0.999
Minimum government royalty	1%	1%	1%	1%
Discount Rate	8%	8%	8%	8%
Mining Recovery	98%	NA	98%	NA
Dilution	5%	NA	5%	NA
Ore processing rate	13Mtpa	13Mtpa	13Mtpa	13Mtpa
Gold processing recovery sediments	85%	85%	85%	85%
Gold processing recovery intrusive	82%	82%	NA	NA
Mining Cost per tonne of material moved	\$2.99/t	\$2.99/t	\$2.50/t	\$2.50/t
Processing cost per tonne of Sediment ore	\$1.53/t	\$1.53/t	\$2.06/t	\$2.06/t
Processing cost per tonne of Intrusive ore	\$1.65/t	\$1.65/t	NA	NA
G&A cost per tonne of ore mined	\$1.69/t	\$1.69/t	\$2.45/t	\$2.45/t
Sustaining Capex	\$140,000 pa	\$140,000 pa	\$250,000 pa	\$250,000 pa

OXIDE MINERAL RESOURCES

The updated oxide resource incorporates an additional 14,875 meters of reverse circulation ("RC") drilling from a total of 338 drill holes when compared to the January 1, 2013 resource estimate which, after mining depletion, has resulted in a marginal decrease in total oxide mineral resources.

To view the first image associated with this press release, please visit the following link:
http://www.marketwire.com/library/20140224-RIOimage1_800.jpg.

The oxide resource is confined within an optimized undiscounted pit shell based on a gold price of US\$ 1,400/oz gold and anticipated metallurgical recovery, costs to mine, produce and sell potential metal production as well as estimated leach pad expansion costs.

The oxide resource estimate in the January 2013 Report was based upon a gold price of US\$ 1,800/oz gold. The gold oxide cut-off grade has decreased marginally to 0.07 g/t Au from 0.1 g/t Au despite a decrease in metal prices. This change is due to three main factors:

- A reduction of processing costs due in part to a planned change from diesel generated power to grid power in August 2014 and lower reagent costs.
- A strip ratio of 0.76, which is significantly lower than the 1.47 strip ratio of the oxide mineral reserves outlined in the January 2013 Report.
- The location of the new colluvium and oxide intrusive mineral resources which are all near surface resulting in a lower cut-off grade in comparison to deeper portions of the oxide mineral resource.

The oxide intrusive material and colluvium material were not included in the January 2013 Report due to a lack of metallurgical test work on those material types at the time. Metallurgical test work was completed on these two material types during 2013 and summarized below.

The third iteration of the resource block model has incorporated slightly revised high grade and low grade domains which have been justified from grade control trends observed from mining over the past two and a half years. Grade composite lengths in the oxide domain have been increased to 8 meters from 6 meters to reflect current minimum bench heights in the mine. Upper cuts have not been applied to the grade composites due to continued positive grade reconciliation as shown in the table below.

YEAR	As Mined (Dry Tonnes)			Resource (Jan2013)			Variance to Resource			
	Months	Tonnes	Au (g/t)	Ozs	Tonnes	Au (g/t)	Ozs	Tonnes	Au	Ozs
2011	Apr-Jun	551,098	0.54	9,538	384,382	0.46	5,656	30%	15%	41%
2011	Jul-Sep	1,226,950	0.63	24,948	925,408	0.51	15,318	25%	19%	39%
2011	Oct-Dec	1,885,704	1.14	69,061	1,879,133	0.85	51,484	0%	25%	25%
Sub- Total 2011		3,663,751	0.88	103,548	3,188,922	0.71	72,458	13%	20%	30%

2012	Jan-Mar	1,505,960	1.23	59,445	1,582,166	1.13	57,268	-5%	8%	4%
2012	Apr-Jun	1,820,213	1.05	61,221	1,814,378	1.21	70,344	0%	-15%	-15%
2012	Jul-Sep	2,369,259	0.59	44,737	2,349,690	0.60	45,608	1%	-3%	-2%
2012	Oct-Dec	2,571,532	0.63	51,725	3,105,078	0.58	57,569	-21%	8%	-11%
Sub- Total 2012		8,266,965	0.82	217,128	8,851,312	0.81	230,789	-7%	1%	-6%
2013	Jan-Mar	2,393,789	0.51	39,507	2,411,096	0.50	39,033	-1%	2%	1%
2013	Apr-Jun	3,034,844	0.65	63,055	2,419,517	0.59	46,019	20%	8%	27%
2013	Jul-Sep	4,996,298	0.58	93,542	4,586,092	0.47	69,684	8%	19%	26%
Sub- Total 2013		10,424,931	0.59	196,103	9,416,706	0.51	154,736	10%	13%	21%
Grand Total		22,355,647	0.72	516,779	21,456,939	0.66	457,983	4%	8%	11%

Note: Results for Q4 2013 not included as numbers have not been finalized

The updated oxide mineral resource estimate outlined in Table 1 is summarized as follows:

100.2 million tonnes grading 0.41 g/t gold in the measured and indicated categories containing 1,327,000 ounces of gold ounces, which after mining 261,232 ounces during the January 1, 2013 to January 1, 2014 period represents a decrease of 69,768 ounces (-4%) from the oxide mineral resource estimate in the January 2013 Report.

Oxide mineral resources in the Calaorco pit area remain open along strike and at depth and as a result, the Company has budgeted to complete a 14,200 meter RC drilling program at Calaorco during 2014 to test potential extensions to the oxide mineralization.

To view the second image associated with this press release, please visit the following link:
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Classification	Material Type	Tonnes (Mt)	Au g/t	Cu %	Ag g/t	Mo ppm	Au ('000 oz)
Measured	Sediments	1.8	0.43	0.01	0.46	5.95	25
	Intrusive	0.3	0.38	0.26	0.36	25.46	3
	Colluvium	0.0	0.00	0.00	0.00	0.00	0
Measured	Total	2.0	.43	0.04	2.56	4.68	28
Indicated	Sediments	71.9	0.45	0.01	0.54	4.66	1,045
	Intrusive	24.1	0.30	0.11	0.41	20.40	231
	Colluvium	2.2	0.34	0.01	0.15	4.40	24
Indicated	Total	98.2	.41	0.04	1.47	7.8	1,299
Meas. + Ind.	Sediments	73.7	0.45	0.01	0.54	4.69	1,070
	Intrusive	24.4	0.30	0.11	0.41	20.46	234
	Colluvium	2.2	0.34	0.01	0.15	4.40	24
Meas. + Ind.	Total	100.2	0.41	0.04	1.49	7.81	1,327
Inferred	Sediments	0.2	0.17	0.01	0.49	4.22	1
	Intrusive	0.1	0.30	0.01	0.19	9.80	1
	Colluvium	0.0	0.00	0.00	0.00	0.00	0
Inferred	Total	0.3	0.20	0.01	0.68	5.79	2

Ausenco Peru SAC ("Ausenco") has been engaged by the Company to undertake a review of all relevant metallurgical data pertaining to leaching in the dump leach processing facilities and to prepare the relevant sections of a Technical Report to back up the updated oxide mineral resource and reserve estimate.

Metallurgical test work has been undertaken predominantly in La Arena's on-site facilities, managed by

CERTIMIN SA ("Certimin"), to assess the gold oxide intrusive material's leaching characteristics when blended with the sediment material. The current plan is to blend the new oxide intrusive material with sediments at a ratio of two parts sediments to one part oxide intrusive. The test work focused on gold recovery, copper dissolution and cyanide consumption but also noted solution breakthrough time (indicative of initial percolation rate).

Since all previous column leach testing on the blend of oxide intrusive material with sediment material was conducted by the "in-house" Certimin-managed laboratory, quality assurance test work was initiated, duplicating two column tests on site with two at SGS del Peru SAC to check the consistency and repeatability of the column tests.

From this test work Ausenco concluded that a dump leach recovery of 82% was appropriate for the blended material and that a sodium cyanide consumption of 0.2 kg/t and lime consumption of 1.5 kg/t were appropriate as input parameters for mineral resource and reserve estimation purposes at pre-feasibility study level. Ausenco has recommended further investigation of the permeability characteristics of blends of oxide intrusive and sediment material, pilot scale testing of bulk sample(s) under dump leach operational conditions (work already in progress), and improved tracking of samples and ore from mining blocks to metallurgical testing to dump leach cells to increase confidence in scale-up from test results to mineral reserve estimates.

OXIDE MINERAL RESERVES

The previous reserve estimate for oxide mineralization was published in the January 2013 Report. Differences in estimated tonnes, grades and metal content between the January 2013 Report and the updated oxide mineral reserve estimate are described below.

Oxide mineral reserves have been based on a pit design that has been derived from pit optimization, using Whittle software, of the new total oxide measured and indicated mineral resources. Included in the oxide mineral reserve estimate is low grade stockpile material that has previously been mined and stockpiled for blending with oxide intrusive mineralization at a later date. The pit optimization input parameters are as for the mineral resources outlined above except that only Measured and Indicated Resources are included and a gold price of \$1,200/oz was assumed.

The updated oxide mineral reserve estimate outlined in Table 2 is summarized as follows:

78.2 million tonnes grading 0.43 g/t gold in the proven and probable categories containing 1,078,000 ounces of gold ounces, which after mining 261,232 ounces during the January 1, 2013 to January 1, 2014 period represents an increase of 452,232 ounces (+51%) from the oxide mineral reserve estimate in the January 2013 Report (or a 22% increase from 887,000 ounces at January 1, 2013 to 1,078,000 ounces at January 1, 2014).

Classification	Material Type	Tonnes (Mt)	Au g/t	Cu %	Ag g/t	Au ('000 oz)
Proven	Sediments	1.4	0.45	0.01	0.44	20
	Intrusive	0.2	0.38	0.26	0.34	3
	Colluvium		0.00	0.00	0.00	0
	LG stockpile	1.2	0.23	0.004	0.81	9
Proven	Total	2.8	0.35	0.03	0.59	32
Probable	Sediments	56.9	0.47	0.01	0.46	853
	Intrusive	16.5	0.32	0.14	0.37	172
	Colluvium	2.0	0.34	0.005	0.15	21
Probable	Total	75.4	0.43	0.04	0.43	1,046
Proven and Probable	Sediments	58.2	0.47	0.01	0.48	873
	Intrusive	16.8	0.32	0.14	0.39	175
Stockpile	Colluvium	2.0	0.32	0.01	0.16	21
	LG stockpile	1.2	0.23	0.00	0.81	9
Proven and Probable	Total	78.2	0.43	0.04	0.46	1,078

The updated reserve features a waste to ore ratio of 0.76 to 1 in comparison to a waste to ore ratio of 1.47 to 1 for the reserve stated in the January 2013 Report. The waste to ore ratio estimated for mining in 2014 is

0.87 to 1.

GUIDANCE FOR 2014

For 2014 the Company anticipates gold production of 190,000 to 210,000 ounces, roughly equivalent to production in 2013.

Adjusted operating costs for 2014 are forecasted to be in the range of \$625 to \$700 per ounce of gold sold.

For 2014 all-in sustaining costs - including selling, general and administrative costs, exploration, and sustaining capital - are forecast to fall within a range of \$825 to \$900 per ounce and all-in costs within a range of \$1,000 to \$1,100 per ounce for the year.

PHASE II UPDATE

The focus of Phase II development at La Arena will be sulphide mining operations producing a copper and gold concentrate, initially based on a starter pit with reserves containing between 30 million tonnes and 40 million tonnes of high grade near surface mineralization. The starter plant throughput rate of Phase II is targeted at 18,000 tonnes per day.

On January 6, 2014, the Company announced that it had received formal notification from the Ministry of Energy and Mines of Peru that approval had been given for modifications to its Environmental Impact Study (EIA) for the La Arena Project Gold Oxide Mine. This EIA modification allows Rio Alto to apply for permits for a future Phase II open pit sulphide mine, construct an 18,000 tonne per day copper/gold concentrator, expand the current waste dump facilities to accommodate sulphide waste and to use the Calaorco Pit for tailings deposition once open pit oxide reserves are exhausted.

The metallurgical test work programme is in its final phase optimising grind size and completing flotation test work, which will be completed in 3-4 weeks. Process design is essentially fixed with only minor adjustments arising from recent test work if deemed necessary. All principal mechanical equipment has been sized and quotations obtained for all major equipment. The plant location and basic layout has been confirmed, and design is progressing to satisfy both the requirements of the Feasibility Study and Beneficiation Concession application. The conceptual study for future Tailings Storage Facility options has been completed as have trade off studies for in pit crushing & conveying, and plant through-put rate.

The objectives of the feasibility study will be to achieve an initial project capital cost as low as practicably possible in order to provide for capital payback in the shortest estimated time period and to utilize as much of the infrastructure of the existing gold oxide mine as possible.

Timing for the completion of the feasibility is constantly being reviewed and the current expectation is for technical work related to the study to be completed late in Q2 / early Q3, 2014.

NI 43-101 and JORC Compliant

The current mineral resource and mineral reserve estimates were prepared in conformity with National Instrument 43-101 *Standards of Disclosure for Mineral Projects* ("NI 43-101"). These estimates will be incorporated in a National Instrument 43-101 Technical Report with an effective date of January 1, 2014 to be filed on the Company's SEDAR profile within 45 days of this press release.

The updated oxide mineral resource and mineral reserve estimates were prepared and classified in accordance with the guidelines set out in the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves of December 2004 as prepared by the Joint Ore Reserves Committee of the Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia ("JORC"). This resource and reserve classification is also in accordance with the classification standards of National Instrument 43-101 *Standards for Disclosure for Mineral Projects* ("NI 43-101") and the reporting classification standards on Mineral Resources and Reserves of The Canadian Institute of Mining, Metallurgy and Petroleum.

Mr. Enrique Garay, MSc. P.Geo (AIG Member), Vice President Geology of Rio Alto, is the Qualified Person (as defined by NI 43-101) responsible for managing the Company's exploration programs and disclosure of drilling results. Mr. Ian Dreyer, B.App.Sc. (AusIMM 305241, CP), a Qualified Person (as defined by NI 43-101), Geology Manager, MIC S.A.C., designed and reviewed the Quality Control and Assurance Program

of the Company and prepared the resource estimates. Mr. Garay and Mr. Dreyer have read and verified the scientific and technical information related to the mineral resource estimate in this press release.

Mr. Marek Mroczek, P.Eng., Senior Mining/Geology Consultant, Mining Plus Canada Consulting Ltd., supervised the review of the reserve estimates. Mr. Mroczek is a Qualified Person as defined by NI-43-101 and has read and verified the scientific and technical information related to the reserve estimate contained in this press release.

Mr. Greg Lane, FAusIMM, Chief Technical Officer, Ausenco, supervised the review of metallurgical test work used for the reserve estimates. Mr. Lane is a Qualified Person as defined by NI-43-101 and has read and verified the scientific and technical information related to metallurgical data pertaining to leaching in the dump leach processing facilities for the mineral resource and reserve estimates contained in this press release.

Forward Looking Statements: This news release contains certain forward-looking information including statements concerning the expected timing for the release of a Technical Report of resource and reserve estimates, future exploration, metallurgical testing programs and the timing of feasibility studies and permitting activities. All statements included herein, other than statements of historical fact, are forward-looking information and such information involves various risks and uncertainties. There can be no assurance that such information will prove to be accurate and actual results and future events could differ materially from those anticipated in such information. A description of assumptions used to develop such forward-looking information and a description of risk factors that may cause actual results to differ materially from forward-looking information can be found in Rio Alto's disclosure documents on the SEDAR website at www.sedar.com. Rio Alto does not undertake to update any forward-looking information except in accordance with applicable securities laws.

To learn more about Rio Alto Mining Limited, please visit: www.rioaltomining.com or Rio Alto's SEDAR profile at www.sedar.com.

Editors note: There are two images associated with this press release.

ON BEHALF OF THE BOARD OF RIO ALTO MINING LIMITED

Alex Black
President & CEO

Contact

[Rio Alto Mining Ltd.](#)

Alex Black, President & CEO
+511 625 9900
alexblack@rioaltomining.com

Rio Alto Mining Ltd.
Alejandra Gomez, Investor Relations
604.628.1401
866.393.4493
alejandrag@rioaltomining.com
www.rioaltomining.com

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