

Monarques Announces a Positive Prefeasibility Study for the Croinor Gold Project

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QUEBEC CITY, QUEBEC--(Marketwired - Oct 17, 2014) - [Monarques Resources Inc.](#) ("Monarques" or the "Corporation") (TSX VENTURE:MQR)(FRANKFURT:MR7) is pleased to announce the results of a prefeasibility study update and mineral resource estimate (the "Prefeasibility Study") for its wholly-owned [Croinor Gold](#) project near Val-d'Or, Quebec. The Prefeasibility Study, which was carried out by InnovExplo Inc. with the participation Golder Associates ("Golder") and WSP Group ("WSP"), confirms the project's economic viability.

The Croinor property is located near the Trans-Canada Highway (Route 117) and is accessible via a gravel road. The property has a ramp and a development shaft. There are four mills in Val-d'Or that could process the Croinor Gold ore. Val-d'Or is also recognized as a world-class mining camp where one can find a skilled workforce and good-quality infrastructure. These are all factors that support the development of the Croinor Gold mine.

"The positive results of the Prefeasibility Study confirm that we are drawing closer to our goal of becoming a Val-d'Or gold producer," said Jean-Marc Lacoste, President and Chief Executive Officer."

In parallel with the Prefeasibility Study, Minrail Inc. ("Minrail") was retained to assess the potential impact of the use of its new technology. "We believe that using Minrail's S.A.M.S.® 100%-electric technology will enable us to generate substantial economies of scale during mine development and operation. We also intend to start testing Minrail's technology in the preproduction phase." Added M. Lacoste.

(Readers should note that as at the date of the report, assessment of the factory-tested S.A.M.S.® technology was considered preliminary in nature, as the method had not been tested in an underground environment.)

The Prefeasibility Study considers an underground mining operation with custom milling of the ore at a fully-permitted milling facility near Val-d'Or. The expected mine life is five years. The Prefeasibility Study will be filed on SEDAR today. The following table shows the highlights from the Prefeasibility Study report; all currency is in Canadian dollars unless otherwise indicated.

PREFEASIBILITY STUDY HIGHLIGHTS ⁽¹⁾

Parameters	Prefeasibility Study Results
Proven and probable mineral reserves	541,534 t at 6.77g/t ⁽²⁾
Mine life (including 18 months of preproduction)	5 years
Daily mine production	425 tpd rising to 675 tpd in Year 4
Recovery	97.5 %
Annual gold production	21,259 to 40,540 oz
Gold recovered over the life of the mine.	114,916 oz
Average operating cost/tonne	\$180/tonne
Average operating cost/oz	US \$757/oz
Capital cost ⁽³⁾	\$42.3 million
Total all-in cost per ounce	US \$1,038/oz
Total gross revenue	\$175.1 million
Total operating cost	\$91.2 million
Total cost of the project	\$133.4 million
Operating cash flow (before taxes and royalties)	\$34.7 million
Estimated income taxes and mining duties	\$12.5 million

Net cash flow (after income taxes and royalties)	\$22.1 million
Pre-tax NPV (5% discount rate)	\$25.0 million
Pre-tax IRR	34 %
After-tax NPV (5% discount rate)	\$14.9 million
After-tax IRR	24 %
Pay-back period	3.8 years
Preproduction period (including production of 35,980 t)	18 months

(1)

Oct-14	Year 2	Year 3	Year 4	Year 5
US \$1,200	US \$1,260	US \$1,323	US \$1,389	US \$1,459
Gold price indexed at 5% per year. Exchange rate (\$CA/US \$) = 1.12				

(2) Volume and grade include mining dilution and recovery.

(3) Includes approximately \$14.96 million for working capital and sustaining capital

OUTLOOK

The Corporation intends to pursue project financing based on this new information. Subject to the success of such financing, the Corporation plans to proceed with mine dewatering and pre-production as outlined in the Prefeasibility Study.

The mineral resource estimate was performed by Karine Brousseau, Eng., under the supervision of Carl Pelletier, B.Sc., P.Geo. All three are consultants with Val-d'Or-based InnovExplo Inc. One of goals of InnovExplo's work was to prepare a 43-101 mineral resource estimate for the deposit.

At a 4 g/t Au cut-off grade, the deposit contains a measured resource of 80,000 tonnes grading 8.41 g/t Au for 22,000 ounces, an indicated resource of 600,000 tonnes at 9.18 g/t Au for 177,000 ounces, and an inferred resource of 160,000 tonnes at 8.56 g/t for 44,000 ounces.

The mineral resource estimate was prepared using a 3-D block model and inverse distance interpolation (ID6) for a 1,570-metre strike length corridor of the Croinor property, to a vertical depth of 545 metres below surface, on 54 mineralized zones.

InnovExplo compiled the drill data for the Croinor property. The assay results for holes drilled from surface in 2010 and 2011, up to Hole CR-11-413, were included in the mineral resource estimate. The current estimate includes 1,219 underground and surface diamond drill holes and covers an east-west distance of 1,530 m on the Croinor deposit.

The database contains a total of 27,655 assays from the 122,339 metres of core drilled in 1,219 holes, as well as 4,309 assays from 1,927 channel samples compiled by InnovExplo in 2005 (Pelletier, C. and Boudrias, G., 2005) that comprises samples from development headings driven between 1983 and 1986.

The following table shows the mineral resource estimate at cut-off grades ranging from 3 g/t Au to 5 g/t Au.

MINERAL RESOURCE ESTIMATE (including mineral reserves)

Mineral Resources Estimate												
	Measured			Indicated			Measured + Indicated			Inferred		
Cut-off (g/t)	Tonnes	Au g/t	Oz Au	Tonnes	Au g/t	Oz Au	Tonnes	Au g/t	Oz Au	Tonnes	Au g/t	Oz Au
> 5 g/t	59,400	9.81	18,700	447,300	10.78	155,000	506,700	10.66	173,700	102,400	10.90	35,900
> 4 g/t	80,500	8.41	21,800	599,600	9.18	176,900	680,100	9.08	198,700	160,100	8.56	44,100
> 3 g/t	112,400	7.00	25,300	848,300	7.51	204,700	960,700	7.45	230,000	227,800	7.03	51,500

- The Independent Qualified Persons for the Mineral Resource Estimate, as defined by Regulation 43-101, are Karine Brousseau, P.Eng., and Carl Pelletier, B.Sc., P.Geo. (InnovExplo Inc.); the effective date of the estimate is 8 August 2014. Mineral Resources, which are not Mineral Reserves, do not have demonstrated economic viability.
- The Mineral Resource is presented inclusive of Mineral Reserves; in other words, the Mineral Reserves have not been subtracted from the Mineral Resource presented above.
- The results are presented undiluted and in situ; the estimate includes 54 gold-bearing zones.
- The Mineral Resource was compiled at cut-off grades of 3, 4 and 5 g/t Au.
- Cut-off grade must be re-evaluated in light of prevailing market conditions (gold price, exchange rate and mining cost).
- A density of 2.8 g/cm³ was used for the mineralized zones and the waste rock.
- A minimum true thickness of 1.8 m was applied, using the grade of the adjacent material when assayed, or a value of zero when not assayed.
- High grade capping was applied on raw assay data, and was established at 70 g/t Au for the diamond drill core and 55 g/t Au for the underground channel samples.
- Compositing was done on drill hole sections and underground channel sections falling within the mineralized zones (composite = 1 metre).
- Resources were evaluated using GEMCOM GEMS 6.3 software from drill holes and underground channel samples using an ID6 interpolation method in a block model.
- The Measured, Indicated and Inferred categories are defined using the parameters for the various passes.
- Ounce (troy) = Metric Tonnes x Grade / 31.10348. Calculations used metric units (metres, tonnes and g/t).
- The number of metric tonnes was rounded to the nearest hundred. Any discrepancies in the totals are due to rounding effects; rounding followed the recommendations in Form 43-101F1.

Reserve Estimation

Mineral reserves were classified in accordance with the CIM Definition Standards for Mineral Resources and Mineral Reserves. Mineral reserves for the project incorporate appropriate allowances for mining dilution and mining recovery for the selected mining method.

MSO (Mineable Shape Optimizer), a Datamine software application, was used to determine the resource to be converted to reserves. MSO software generates individual stope designs from the block model on the basis of specified stope parameters.

Longhole retreat and room-and-pillar appear to be the two mining methods best suited to the Croinor deposit. In order to select the most appropriate method, two MSO runs were done on the block model using the parameters shown below the two methods. Small blocks (5m x 2.5m x 2.5m) were generated to obtain suitable results adapted to the narrow vein nature of the deposit:

Longhole method:

- Cut-off grade: 3.7 g/t
- Minimum mining width: 1.8 m (stope height)
- Mining dilution: 0.4 m on the hangingwall and 0.2 m on the footwall
- Minimum stope footwall angle: 45 degrees
- Sublevel spacing: 13 m vertical
- Block length: 5 m (stope width)

Room and pillar method:

- Cut-off grade: 5.4 g/t
- Minimum mining height: 1.8 m (stope height)
- Maximum mining height: 3 m (stope height)
- Maximum stope angle: 45 degrees
- Stope size: 5m x 5m

The estimated proven and probable reserves are shown in the table below; they total 117,870 ounces after applying the mining recovery and dilution factors for the selected method.

Diluted Mineral Reserve Estimate

Category	Tonnes	Grade g/t	Ounces
Proven	68,625	6.25	13,789
Probable	472,079	6.85	104,081
Total Reserves	541 534	6.77	117,870

Ore Recovery and Dilution

The recovery and dilution factors applied in the mine plan and reserve calculations were based on a rock mechanics study and factors commonly used for the selected method.

In the longhole method, small blocks generated by MSO were grouped to form larger stopes, and pillars were established based on the rock mechanics study. A 95% recovery factor was then applied to the remaining tonnage. A 0.6-metre thickness of dilution was initially applied in the MSO parameters, resulting in 24% overall stope dilution once the data was compiled. To remain conservative, a 6% dilution factor was added, for an overall dilution factor of 30% for the longhole stopes, resulting in an average mining width of 4.0 m, including 1.2 m of dilution. The dilution grade was set at 0.0 g/t Au.

The room-and-pillar stopes were evaluated on the basis of an 85% recovery factor. For smaller stopes considered stable in the geomechanical study, a 100% recovery factor was applied. A 5% dilution factor was used for the room-and-pillar stopes.

Cut-off Grade

For the present study, the same stopes created in the previous study were used (Poirier et al., 2012), but a new cut-off grade was calculated and some stopes were discarded because they were no longer profitable. Each stope that was close to the cut-off grade was evaluated individually to determine whether it would be included in the study or discarded. For the calculation of this cut-off grade, a metal price of \$1,300 at an exchange rate of 1.10 was used. The remaining parameters used in the cut-off grade estimation are presented in the following table.

Cut-off Grade Parameters

	Long-hole	Room and pillar
Operating Cost	\$182.75/t	\$232.33/t
Mint cost	\$5.00 /oz	\$ 5.00/oz
Mill recovery	97.5 %	97.5 %
Mining dilution	Included in MSO parameters	5.0 %
Cut-off grade	4.1 g/t	5.5 g/t

Mining

The proposed mine plan for the Croinor project involves the underground mining of narrow subvertical veins. A large portion of the identified resource dips at less than 45 degrees, and is not well-suited to longhole mining, as the broken ore does not flow easily. It is no better suited to room-and-pillar mining, as the dip makes it difficult for workers to navigate the stopes with equipment and materials.

"The dip of the Croinor Gold mineralization has led the Corporation to work with Minrail and InnovExplo to test the use of Minrail's S.A.M.S. technology," noted Jean-Marc Lacoste. "Chapter 24, "Other Data and Relevant Information", is devoted to this, and discusses the assumption of using this technology, the potential for improving various operating aspects, the health and safety aspect and the potential savings that could substantially improve the economics of the Croinor Gold project."

The mine plan for the Croinor project is based on a combination of conventional and mechanized mining

methods. The approach in the study was to force the application of the longhole method by ensuring a minimal footwall angle of 45 degrees through the addition of dilution. When this was not suitable, room-and-pillar mining was used. This stope analysis was possible through the use of MSO software, which optimizes stope design for specified mining parameters.

The ore will be hauled to surface using a combination of 3.5-yd and 6-yd scoop trams and a 30-tonne truck. Waste rock will either be brought to surface or used to fill the mined-out stopes when possible.

The deposit will be accessed via a ramp. The existing ramp will be repaired down to Level 125 and a new section will be excavated to access all the reserves. The production drifts will be accessed via crosscuts connecting to the ramp.

Existing Mine Infrastructure

The Croinor deposit is serviced by a ramp measuring 300 metres long by 4 metres high by 4.5 metres wide (4 metres x 4.5 metres) that extends to Level 125 (38 metres), and by a 195-metre deep three-compartment shaft. Mine development has been done on four levels: 496 metres on Level 125, 560 metres on Level 250, 233 metres on Level 375 and 730 metres on Level 500. Approximately 320 metres of raise development was also done. The Croinor mine is currently flooded to the portal entrance.

Production Schedule

InnovExplo developed a preliminary production and development schedule, taking into account the existing underground workings. Production will take place on an operating schedule of two 10-hour shifts, six days a week, for a total of 300 days per year. The underground mine design provides for a five-year mine plan that produces 541,534 tonnes of ore grading 6,77 g/tonne. At a 97.5% mill recovery, a total of 114,916 ounces of gold would be produced during this period.

The mining method will be 75% longhole and 25% room-and-pillar. The mine plan includes all the development required to access and mine the mineralized zones. The table below shows the production schedule over the life of the mine.

Prefeasibility Mine Life Production Schedule

	Year 1	Year 2		Year 3	Year 4	Year 5	Total
	Pre-Prod	Pre-Prod	Prod	Prod	Prod	Prod	
Longhole (t)		19,110	53,455	74,782	149,621	109,732	406,700
Grade (g/t)		6.05	7.70	5.14	6.26	5.53	6.04
Room & Pillar (t)			7,691	31,732	30,340	15,594	85,357
Grade (g/t)			8.41	14.34	9.40	7.78	10.85
Development (t)	4,914	7,623	6,552	18,040	12,348		49,477
Grade (g/t)	5.63	6.40	5.73	5.50	5.81		5.76
Total volume (t)	4,914	26,733	67,698	124,554	192,309	125,326	541,534
Grade (g/t)	5.63	6.15	7.59	7.53	6.72	5.81	6.77

Mineral Processing and Metallurgy

Ore from Croinor will be processed at a Val-d'Or area mill with excess capacity for the duration of the Croinor Gold operation. Contact has been made with potential custom milling partners and tentative commitments have been arranged for processing the ore. Ore previously mined from the Croinor open pit operation was processed at a local mill, and the 97.5% gold recovery used in the study was based on actual results achieved during these runs.

Infrastructure

A 25 KV transmission line will be extended from the nearby Chimo mine site to the Croinor Gold property to

supply electrical power for the site. The existing roads to and on the site will be upgraded to support vehicle travel to and from the site, including the offsite transportation of ore for processing.

The mine will be dewatered and the existing 300-metre ramp and 2 kilometres of mine development will be upgraded and extended to meet the mine's requirements. The existing 200-metre deep shaft will be reconditioned and used as a ventilation raise and emergency escape way. Ore and waste will be hauled to surface via ramp. An existing building will be set up for use as a warehouse, and additional buildings will be erected to serve as a dry, offices, garages and a core shack.

Environmental Studies and Permitting

The Corporation has a Certificate of Authorization to operate the mine from the MDDEP, issued in September 2010. The other studies and permits required to operate a mine, relating to the environment, rehabilitation and the crown pillar, are also complete or in hand. Other miscellaneous accessory permits will be obtained once the project is underway, following financing.

Operating Costs

Operating costs are estimated at US \$848 per ounce over the life of mine. The expected cost breakdown is shown in the following table:

Summary of Total Life-of-Mine Operating Costs

Description	Total costs	Unit cost	
Delineation drilling	1,850,313	\$3.66/t	\$17.20/oz
Drift development	11,891,108	\$23.52/t	\$110.51/oz
Mining	16,894,672	\$33.42/t	\$157.01/oz
Monarques' team (salaries)	10,821,595	\$21.41/t	\$100.57/oz
Contractors (indirect costs)	18,931,540	\$37.45/t	\$175.94/oz
Surface services	266,595	\$0.53/t	\$2.48/oz
Energy	4,456,328	\$8.81/t	\$41.42/oz
Milling and transportation	25,208,667	\$49.86/t	\$234.28/oz
Environment	903,731	\$1.79/t	\$8.40/oz
Total	91,224,549	\$180.45/t	\$847.81/oz

Capital Costs

Pre-production costs are estimated at \$27.36 million, including \$7.08 million in capitalized operating costs, net of revenue from production during the pre-production period. Sustaining capital is estimated at \$14,65 million, excluding \$0.7 million for final closure costs.

Breakdown of Capital Expenditures

Description	Preproduction (\$)	Sustaining (\$)	Total costs (\$)
Capitalized operating costs	17,223,056		17,223,056
Capitalized revenues	-10,143,025		-10,143,025
Royalty	500,000		500,000
Dewatering and reconditioning	1,192,469		1,192,469
Surface infrastructure	3,488,670	871,604	4,360,274
Electrical distribution	5,135,790	660,246	5,796,036
Mine infrastructure	810,787	157,514	968,301
Mobile equipment	3,618,041	5,032,494	8,650,535
Development	4,819,567	8,065,391	12,884,958
Environment	717,813	169,304	887,117
Total	27,363,167	14,653,993	42,319,720

Economic Analysis

An after-tax model was developed for the Croinor project. All costs are in 2014 Canadian dollars, with no allowance for inflation or escalation. The Croinor project is subject to the following taxes:

- Quebec mining duties
- Federal and provincial income tax

The economic analysis for the project was performed using the Internal Rate of Return (IRR) and Net Present Value (NPV) methods. The IRR on an investment is defined as the rate of interest earned on the unrecovered balance of an investment. The NPV method uses a specific discount rate to convert all cash flows for investments and revenues occurring throughout the planning horizon of a project to an equivalent single sum at the present time. The discount rate used in the analysis was 5%. According to the NPV method, a positive NPV represents a profitable investment where the initial investment is recovered, along with any financing interest.

Qualified Persons

This press release was prepared, reviewed and approved by Sylvie Poirier, P.Eng., Karine Brousseau, P.Eng. and Carl Pelletier, who are qualified persons as defined under Regulation 43-101 guidelines.

The resources estimate was prepared under the supervision of Carl Pelletier, P.Geo, a consulting geologist with InnovExplo Inc. Mr. Pelletier is a qualified and independent person as defined in Regulation 43-101. He has reviewed and approved the technical contents of this press release pertaining to the resource estimate in the technical report he prepared and authored. The Prefeasibility Study was prepared under the supervision of Sylvie Poirier, P.Eng., a senior engineer with InnovExplo Inc. Ms. Poirier is a qualified and independent person as defined in Regulation 43-101. She has reviewed and approved the technical contents of this press release pertaining to the Prefeasibility Study she prepared and authored.

ABOUT MONARQUES

Monarques is a gold exploration company currently focusing its efforts on the development of gold projects along the Cadillac Break, in the [Val-d'Or](#) area of Quebec. Monarques currently has nearly 200 km² of property holdings in the Val-d'Or area consisting of 582 claims, two mining concessions and one mining lease, and over \$9.4 million in credits from the *Ministère de l'Énergie et des Ressources naturelles*.

Forward-Looking Statements

The forward-looking statements in this press release involve known and unknown risks, uncertainties and other factors that may cause Monarques' actual results, performance and achievements to be materially different from the results, performance or achievements expressed or implied therein. *Neither TSX Venture Exchange nor its Regulation Services Provider (as that term is defined in the policies of the TSX Venture Exchange) accepts responsibility for the adequacy or accuracy of this press release.*

Contact

Jean-Marc Lacoste
President and CEO
1-888-994-4465 x 201
jm.lacoste@monarquesresources.com
Vincent Janelle
Vice President, Investor Relations
1-888-994-4465 x 202
vincent.janelle@monarquesresources.com
www.monarquesresources.com

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