

# Golden Queen Mining Co. Ltd. Announces Updated Feasibility Study for Soledad Mountain Project

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VANCOUVER, April 6 /[CNW](#)/ - [Golden Queen Mining Co. Ltd.](#) (TSX: GQM) ("Golden Queen" or the "Company") is pleased to present an updated feasibility study and economic analysis for its Soledad Mountain Project. The updated feasibility study and economic analysis was prepared by Norwest Corporation with input from independent consulting engineers and management.

The US dollar is used in this news release.

## High Points

- A projected, all-inclusive, average cash cost per ounce of gold produced, net of silver credits at current silver prices, of \$133/oz
- Major approvals and permits have been secured
- Estimated capital costs, including working capital, are \$88.9million
- The Project is serviced by existing infrastructure, accessible by state highway, and proximate to a local experienced workforce and housing
- A relatively low waste to ore stripping ratio of 1.85:1 (tons:tons)

## Cash Flow Analyses

The cash flow analyses in the updated feasibility study were done on a constant dollar, pre-tax, all-equity basis. The study provides the following economic estimates for the Project:

The Project has an indicated internal rate of return ("IRR") on capital employed of 83.7%. The net present value ("NPV") is \$722million with a discount rate of 8.0% and the undiscounted, cumulative net cash flow is approximately \$1.16billion. The indicated contribution of gold and silver to gross revenues is 77% and 23% respectively at current gold and silver prices with an all-inclusive, average cash cost per ounce of gold produced, net of silver credits, of \$133/oz. Gold and silver prices used to model the cash flows were \$1,457.00 and \$39.63 respectively, the London a.m. fix for precious metals on April 6, 2011.

If gold and silver prices are reduced by 10% from current levels, the indicated IRR is 74.1%, the NPV is \$579million with a discount rate of 8% and the undiscounted, cumulative net cash flow is \$996million. The all-inclusive, average cash cost per ounce of gold produced, net of silver credits, increases from \$133/oz to \$157/oz at these lower gold and silver prices.

When trailing 36-month average gold and silver prices of \$1061.25/oz and \$17.78/oz respectively to the end of March 2011 are used to model the cash flows, the indicated IRR is 51.6% before taxes, the NPV is \$343million with a discount rate of 8% and the undiscounted, cumulative net cash flow is \$617million. The all-inclusive, average cash cost per ounce of gold produced, net of silver credits, increases further to \$313/oz. The trailing 36-month average precious metals prices are accepted by the U.S. Securities And Exchange Commission when reporting mineral reserves.

The current number of shares issued and outstanding is 94,378,380 and the fully-diluted number is 100,478,380 shares.

## Overview

The Company plans to develop a gold-silver, open pit, heap leach operation on its Soledad Mountain property, located just outside the town of Mojave in Kern County in southern California. The Project will use

conventional open pit mining methods and the cyanide heap leach and Merrill-Crowe processes to recover gold and silver from crushed, agglomerated ore. The planned, average ore and waste mining rates are 4.9million tons and 9.1million tons per year with a stripping ratio of 1.85:1 for a combined mining rate of ore and waste of 14million tons per year. Gold and silver production is projected to average 75,000oz and 950,000oz respectively per year although this is expected to fluctuate considerably from year to year depending upon the ore head grades. Gold and silver production is projected to be 936,332oz of gold and 10,426,654oz of silver over a period of 13 years.

The Company also plans to process approximately 19million tons of waste rock as aggregate, with production continuing for a minimum of 15 years after gold and silver production has ended. No contributions from the sale of aggregate products have been included in the cash flow projections.

### Mineral Resource Estimates

The Company engaged SRK Consulting (U.S.), Inc. in 2005 to prepare a National Instrument 43-101 compliant Technical Report to validate and confirm mineral resource estimates. The Technical Report was released on March 6, 2006. The mineral resource estimates are set out in the table below.

#### Mineral Resource Estimates

| Resource Category | tonnes     | ton        | g/t   | Grades      |                   | Contained Metal |           |            |
|-------------------|------------|------------|-------|-------------|-------------------|-----------------|-----------|------------|
|                   |            |            |       | Gold oz/ton | Silver g/t oz/ton | Gold oz         | Silver oz |            |
| Measured          | 39,720,000 | 43,692,000 | 0.926 | 0.027       | 14.86             | 0.43            | 1,181,100 | 18,941,100 |
| Indicated         | 50,774,000 | 55,851,000 | 0.603 | 0.018       | 11.47             | 0.33            | 981,100   | 18,686,400 |
| Total & Average   | 90,494,000 | 99,543,000 | 0.744 | 0.022       | 12.96             | 0.38            | 2,162,200 | 37,627,500 |
| Inferred          | 32,073,000 | 35,280,000 | 0.497 | 0.014       | 10.84             | 0.32            | 510,700   | 11,154,000 |

#### Note:

1. *AuEq* is the gold-equivalent grade, which is calculated as follows:  $AuEq\ g/t = Au\ g/t + \{(Ag/R1) \times R2\} g/t$  where  $R1 = Au\ price\ in\ \$/oz / Ag\ price\ in\ \$/oz$ ;  $R2 = Ag\ recovery\ in\ \% / Au\ recovery\ in\ \%$ . Prices used in the calculations are \$450.00/oz and \$7.50/oz for gold and silver respectively. Recoveries used in the calculations are 78.0% and 60.0% for gold and silver respectively.

2. Ore zones were shaped manually with a cutoff grade of 0.274g/t (0.008oz/ton) AuEq.

3. The mineral resources were calculated with a cutoff grade of 0.274g/t (0.008oz/ton) AuEq.

The NI 43-101 compliant Technical Report dated March 6, 2006 is available on SEDAR and on the Company's web site at [www.goldenqueen.com](http://www.goldenqueen.com).

### Mineral Reserve Estimates

The Company engaged Norwest Corporation ('Norwest') of Vancouver in 2007 to assess mineral reserves for the Project as part of an independent feasibility study based upon the technical work that had been completed to the end of 2006. The results of the Norwest study were disclosed in a press release on December 14, 2007 and in a NI 43-101 compliant Technical Report dated January 23, 2008, which is available on SEDAR and on the Company's website at [www.goldenqueen.com](http://www.goldenqueen.com).

Norwest has now completed substantial additional mine design with a focus on reducing the stripping ratios. The mineral reserve estimates as determined by Norwest in the 2011 updated feasibility study are set out in the table below.

#### Proven and Probable Mineral (Ore) Reserve Estimates

| Reserve Category | tonnes     | ton        | g/t   | Diluted Grades |            |               | Contained Metal |            |
|------------------|------------|------------|-------|----------------|------------|---------------|-----------------|------------|
|                  |            |            |       | Gold oz/ton    | Silver g/t | Silver oz/ton | Gold oz         | Silver oz  |
| Proven           | 28,301,000 | 31,196,000 | 0.823 | 0.0240         | 13.72      | 0.400         | 748,700         | 11,478,400 |
| Probable         | 20,091,000 | 22,146,000 | 0.545 | 0.0159         | 11.45      | 0.334         | 352,900         | 7,381,900  |
| Total & Average  | 48,392,000 | 53,342,000 | 0.708 | 0.0207         | 12.77      | 0.372         | 1,101,600       | 18,860,300 |

Allowance has been made for dilution in determining the mineral reserve estimates. Dilution has been assigned a zero grade. The average stripping ratio is now 1.85:1 compared to a stripping ratio of 2.12:1 in 2008.

A NI 43-101 compliant Technical Report will be available on SEDAR and on the Company's website within the next ten days.

Less than 50% of the mineral resource estimates have been included in the planned 12-year gold and silver heap leach operation and this is to some extent dictated by the open pit backfilling requirements as discussed in more detail under the Permitting Update heading below. The Company expects to be able to extend the gold and silver heap leach operation beyond the initial 12 years if the Company can confirm in its annual reports to the Kern County Planning Department and the State Office of Mine Reclamation that all reclamation requirements have been and can be met.

### Cutoff Grades

Note that ore zones were shaped manually by Company geologists with a cutoff grade of 0.274g/t (0.008oz/ton) AuEq and that both mineral resource and mineral reserve estimates are calculated with a cutoff grade of 0.274g/t (0.008oz/ton) AuEq. An in-house cutoff grade analysis based upon current gold and silver prices and processing costs indicates lower cutoff grades of 0.137g/t (0.004oz/ton) AuEq. The implications of lower cutoff grades are potentially lower stripping ratios with more ore to the heap and higher gold and silver production, but these upside opportunities are subject to backfilling and other permitting constraints.

### Infill Drill Program

The Company announced that it had initiated an infill drill program in a news release on October 21, 2010.

The drill program will test targets within the areas of the planned North-West and East open pits. A total of 15 holes are proposed within the North-West open pit area with a total length of 1,500m. The North-West open pit is the planned location of the first phase of mining. A total of 9 holes are proposed within the East open pit area with a total length of 1,200m.

The program will consist primarily of infill drilling with the objective of upgrading inferred resources to a level of assurance which would allow for re-classification as reserves. In addition, the drilling will confirm the design and location of access roads and test continuity of mineralization, which typically has been excellent in most areas previously tested. The impact is expected to be a further lowering of stripping ratios.

The Company is in the process of upgrading access roads and preparing drill pads for the program. The drill is currently being mobilized and it is expected that drilling will start within the next ten days. It is expected that the drill program will take 45 days to complete.

### Gold And Silver Recoveries

Extensive process development done on Soledad Mountain ores from 1988 to 2007 shows that these ores are readily amenable to heap leaching if the ore is crushed to relatively small sizes. Three series of metallurgical test programs that evaluated the use of a high-pressure grinding roll ('HPGR') to size and prepare ore particle for heap leaching were completed between 2003 and 2007. The indicated benefits of using the HPGR will be:

- Higher recoveries in the heap leach operation due to micro-cracks in the ore particles

- Faster gold and silver extraction rates
- Stronger agglomerates due to a more favorable overall particle size distribution and this will also impact the flow rates of solution through the heap
- Lower capital costs than a conventional crushing - screening plant
- Manageable dust control with fewer transfer points
- Lower energy consumption and thus lower operating costs
- Enhanced circuit flexibility that will permit future upgrades such as a finer HPGR feed size or the recycle of edge product

The Company's consulting engineers project recoveries of 85.0% for gold and 52.5% for silver for the commercial operation. Extended leach times are available in a commercial operation and the Company expects that silver recoveries could be as high as 65.0%, based upon historical test work. The all-inclusive average cash cost per oz of gold produced is projected to be lower by \$18/oz for every increase in silver recovery of 2.5% above the projected recovery of 52.5% at current silver prices.

### **Capital And Operating Costs**

Engineering has been substantially completed for all major components of the Project and this includes the design of the crushing-screening plant with the HPGR as the key comminution device by a Vancouver-based consulting engineering firm. Capital cost estimates are based upon quotes for construction from a number of key vendors and contractors based in southern California. The capital cost required is estimated to be \$80.2million and this includes unallocated costs of 10% or \$7.2million. It is estimated that a further \$8.7million will be required as working capital. Total estimated capital costs are therefore \$88.9million. Cash flow is expected to turn positive nine months after the start of production with payback on capital employed of approximately 22 months after the start of production. The sustaining capital is estimated to be a further \$24.8million over the life of the gold and silver heap leach operation. The bulk of the sustaining capital will be required for construction of the second and third stages of the heap leach pad and for major equipment replacement.

Detailed operating cost estimates have been prepared with information provided by independent consulting engineers and vendors of services and supplies such as diesel fuel and explosives, reagents such as cement and sodium cyanide and operating supplies and spare parts for both the major mining equipment and support equipment and equipment in the various processing facilities. The all-inclusive average cash operating cost is projected at \$10.03/ton of ore mined for the life of the gold and silver heap leach operation.

The Company is expected to be a significant employer in the area with the number of fulltime jobs ranging averaging 165 and this will have a positive impact on the Mojave area economy.

### **Permitting Update**

#### ***Land Use - Conditional Use Permits***

The Kern County Planning Commission unanimously approved the Project at its regularly scheduled meeting in Bakersfield on April 8, 2010. All appeals that were subsequently filed against the Commission's decision have been withdrawn and the decision made by the Planning Commission is now final. The Planning Commission approved minor wording changes to the Conditions of Approval on October 28, 2010.

The State of California introduced backfilling requirements for certain types of open pit metal mines in December 2002. Norwest Corporation prepared a life-of-mine waste rock management plan and this plan incorporates sequential backfilling of mined-out phases of the open pit with limited double-handling of waste rock at the end of the mine life. This plan has been incorporated in the Planning Commission approvals. The Company is currently preparing a submission to be made to the Kern County Planning Department demonstrating ultimate disposition of leached and rinsed residues from the heap leach operation consistent with performance standards in applicable regulations.

The Bureau of Land Management confirmed that its Record of Decision approving the Plan of Operations under NEPA in November 1997 remains valid.

### **Water Quality - Waste Discharge Requirements**

The Lahontan Regional Water Quality Control Board (the 'Board') unanimously approved Waste Discharge Requirements and a Monitoring and Reporting Program for the Project at a public hearing held in South Lake Tahoe on July 14, 2010. The Board order was subsequently signed by the Executive Officer of the Board and is now in effect.

### **Air Quality - Authority to Construct and Permit to Operate**

The Air Quality and Health Risk Assessments for the Project were completed and submitted to the Planning Department and the Eastern Kern Air Pollution Control District ('EKAPCD') on July 21, 2009. This report was approved by Kern County Planning Commission on April 8, 2010, as part of the certification of the Supplemental Environmental Impact Report.

Ten applications for Authority to Construct were submitted to the EKAPCD in February 2011. It is expected that EKAPCD will issue Authority To Construct approvals in May 2011.

The Authority to Construct approvals will be converted to a Permit to Operate after construction has been completed and subject to inspection by EKAPCD.

### **Aggregate**

It is expected that a byproduct aggregate and construction materials business can be developed once the heap leach operation is in full production, based on the location of the Project in southern California with close proximity to major highways and railway lines. The source of raw materials will be suitable quality waste rock specifically stockpiled for this purpose. The waste rock can be classified into a range of products such as riprap, crushed stone and sand with little further processing. Test work done in the 1990s confirmed the suitability of waste rock as aggregate and construction material. The Company also plans to process and sell leached and rinsed residues from the heap leach operation for a range of uses to local and regional markets. It is intended that these products will be sold over an extended mine life of 30 years, but no contributions from the sale of such products will be included in the cash flow projections until long term contracts for the sales of these products are secured.

### **Outlook**

Golden Queen will evaluate various possible financing options for the Project, which may be combined. Those options include equity financing, debt financing, and merger with an established mining company. The Company estimates that construction can be completed in nine months once financing has been secured.

It is not expected that the Company will hedge any of its gold or silver production.

### **Qualified Persons**

Mr. Sean Ennis, P.Eng., Vice President Mining with Norwest Corporation, is a qualified person for the purposes of National Instrument 43-101 and has reviewed and approved the technical content of this press release as it relates to the feasibility study completed by Norwest Corporation.

Mr. H. Lutz Klingmann, P.Eng., the President of the Company, is a qualified person for the purposes of National Instrument 43-101 and has reviewed and approved the technical content of this press release.

### **Cautionary Note To U.S. Investors Regarding Reserve and Resource Estimates**

*The information in this press release includes certain "forward-looking statements". All statements, other than statements of historical fact, included herein including, without limitation, plans for and intentions with respect to the Company's properties, statements regarding intentions with respect to obligations due for various projects, quantity of reserves, permitting, construction and production and other milestones, and the Soledad Mountain project's future operating or financial performance including production, rates of return, recoveries, cash costs and capital costs are forward-looking statements. Statements concerning Mineral Reserves and Mineral Resources are also forward-looking statements in that they reflect an assessment, based on certain*

*assumptions, of the mineralization that would be encountered and mining results if the project were developed and mined in the manner described. Forward-looking statements involve various risks and uncertainties. There can be no assurance that such statements will prove to be accurate, and actual results and future events could differ materially from those anticipated in such statements. Important factors that could cause actual results to differ materially from Golden Queen's expectations include the uncertainties involving the availability of project financing in the debt and capital markets; uncertainties involved in the interpretation of drilling results and geological tests and the estimation of reserves and resources; risks of construction and mining projects such as accidents, equipment breakdowns, non-compliance with environmental and permit requirements, unanticipated variation in ore grades or recovery rates; unexpected cost increases; fluctuations in metal prices and currency exchange rates, and other risks and uncertainties disclosed in Golden Queen's Annual Report on Form 10-K for the year ended December 31, 2010, filed with U.S. and Canadian securities regulatory authorities and in other reports and documents filed with applicable securities regulatory authorities from time to time. These forward looking statements reflect the beliefs, opinions and projections on the date the statements are made. Forward looking statements are based on numerous assumptions and are subject to all of the risks and uncertainties inherent in Golden Queen's business, including risks inherent in mineral exploration and development. Investors are cautioned that forward-looking statements are not guarantees of future performance and, accordingly, should not to put undue reliance on forward-looking statements.*

Information on Golden Queen Mining Co. Ltd. is available on the SEDAR web site at [www.sedar.com](http://www.sedar.com) and on the Company's website at [www.goldenqueen.com](http://www.goldenqueen.com) or contact us as follows:

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