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**Report Issuance Date:** 06 January 2013

**Evaluating Laboratory:** Gaming Laboratories Australia  
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**Report Recipient:** Marquee Holdings Ltd.  
Akara Bldg., 24 De Castro Street  
Wickhams Cay 1  
Road Town, Tortola  
British Virgin Islands

**Submitting Party:** Marquee Holdings Ltd.  
Akara Bldg., 24 De Castro Street  
Wickhams Cay 1  
Road Town, Tortola  
British Virgin Islands

**Jurisdiction:** Non-applicable

**Product Tested:** Roman Empire

**Evaluation Period:** 10 December 2013 to 26 December 2013

**GLI File Number:** MA-00-MQH-13-01

**Report Sections:**

- Introduction
- Game Description
- Mathematics Evaluation
- Conditions of Evaluation
- Terms and Conditions

**Signature:** 

Mr. Larry Xiao

General Manager

GLI Asia Ltd.

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**This report only pertains to GLI's verification of the mathematical aspects of the "Roman Empire" game against submitted game mathematics and rules documentation from Marquee Holdings Ltd. (hereafter referred to as "Marquee"). This report DOES NOT offer any opinion on whether or not this game is currently or will be recommended for approval in any particular jurisdiction.**

## **Introduction**

GLI was contracted by Marquee to perform an independent verification of the mathematical model of the reel-based "Roman Empire" game. The submission was not evaluated against any particular jurisdictional technical standards or requirements.

## **Game Description**

A description of the "Roman Empire" game as derived from the submitted game rules is provided below.

"Roman Empire" is a five-reel, 30-payline slot game with the 'Wheel of Fortune' and 'Double Up' game features. The expanding '*Wild*' symbol is wild and substitutes for all symbols except for the "Bonus" symbols. The expanding '*Wild*' symbol only appears on the second, third and fourth reels. Winning combinations for all symbols pay from the leftmost to right reels except for the scatter '*Bonus*' symbol. Line wins are multiplied by the amount bet per line while scatter wins are multiplied by the total amount bet. Only the highest winning combination is awarded on each pay-line being bet on.

The 'Wheel of Fortune' game feature is triggered when three or more '*Bonus*' symbols are visible on the reels, and the player may spin the resulting wheel of fortune once. The prize that the player wins on the wheel of fortune will be multiplied by the number of active pay-lines and by the active line bet. The possible prize multipliers on the wheel of fortune are in the range of x1 to x41 with an average payout of x19.

At the end of a game play, the 'Double Up' game feature is available whenever the player has achieved game winnings. The 'Double Up' game feature is initiated by pressing the 'Double Up' button. If the 'Double Up' button is selected, the player will have a chance to double or lose the entire winning amount. The player can continue to play the 'Double Up' game feature until an incorrect guess on the coin face (Head or Tail) is made, the maximum limit of 10 'Double Up' rounds are played, or the 'Collect' button is selected. When the 'Double Up' game ends, the player returns to the main game screen and any winning credits will be added to the account balance.

**Mathematics Evaluation**

GLI’s mathematics evaluation of the “Roman Empire” game was performed with the aim of providing an independent calculation of the theoretical Percentage Return-to-Player (%RTP) of the game, based solely on the game mathematics and rules documentation submitted from Marquee.

The results of GLI’s %RTP analysis of the “Roman Empire” game are presented in the table below.

Types of %RTP	Marquee’s Submitted %RTP	GLI’s Mathematics Results	
		GLI’s %RTP	Method of Analysis
Minimum %RTP	93.81%	93.81% <i>(Note 1)</i>	Analytical
Maximum %RTP	94.11%	94.11% <i>(Note 2)</i>	Analytical

*Note 1: GLI’s minimum %RTP was determined from a play configuration of five pay-lines.*

*Note 2: GLI’s maximum %RTP was determined from a play configuration of two pay-lines.*

The maximum non-progressive award details of the “Roman Empire” game as determined by GLI are as follows:

Game Name	Maximum Non-Progressive Award	Maximum Non-Progressive Award Event(s)	Odds of Maximum Non-Progressive Award
Roman Empire	6,000	Achieving five ‘Bonus’ symbols with the maximum number of pay-lines being played	1 in 138,084

### Conditions of Evaluation

GLI's evaluation of Marquee's "Roman Empire" game mathematics is subject to the following limitations:

- The recipient, by its acceptance of this report or analysis, will be deemed to have acknowledged and agreed to all of the "Terms and Conditions" set forth below. If the recipient does not agree to all of such terms and conditions, GLI withdraws the certification provided or analysis established by this report and the recipient must immediately return to GLI all copies of this report and make no reference to this report for any purpose at any time.
- GLI's evaluation of Marquee's "Roman Empire" game mathematics was related only to the technical scope of work elements discussed herein. This specifically excludes any other features or functions provided by the submission not related to these elements.
- GLI's findings concerning any statistical analysis of the game mathematics are within the 95% confidence interval.
- All testing results are based on information and materials submitted by Marquee to GLI throughout the duration of the project. There are inherent limitations to performing compliance testing within a laboratory environment, and within a finite time period. As a result of these limitations, anticipating all possible configurations, scenarios and events which could potentially occur in the live environment was not feasible.

Please refer to the attached "Terms and Conditions" which apply to the information provided herein.

Should you have any questions or require any additional information, please feel free to contact our office.

Sincerely,

A handwritten signature in blue ink that reads "Larry Xiao". The signature is fluid and cursive, with the first name "Larry" and the last name "Xiao" clearly distinguishable.

Mr. Larry Xiao  
General Manager  
**GLI Asia Ltd.**

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