

EXHIBIT I

DR. CHRIS P. TSOKOS

UNITED STATES DISTRICT COURT
MIDDLE DISTRICT OF FLORIDA
TAMPA DIVISION
IN ADMIRALTY

ODYSSEY MARINE EXPLORATION, INC. :
 :
 Plaintiff, : CIVIL ACTION
 :
 v. :
 : Case No: 8:07-CV-00614-SDM-MAP
 THE UNIDENTIFIED, SHIPWRECKED VESSEL, :
 if any, its apparel, tackle, appurtenances and :
 cargo located within a five mile radius of the :
 center point coordinates provided to the Court :
 under seal, :
 :
 Defendant; :
 in rem :
 and :
 :
 The Kingdom of Spain and the Republic of Peru, :
 :
 Claimants. :
 _____ / :

AFFIDAVIT OF CHRIS P. TSOKOS, Ph.D.
IN SUPPORT OF ODYSSEY MARINE EXPLORATION, INC.'S RESPONSE TO
CLAIMANT, SPAIN'S, MOTION TO DISMISS OR FOR SUMMARY JUDGMENT

This AFFIDAVIT is being filed in case 8:07-CV-00614-SDM-MAP.

1. My name is Chris P. Tsokos, Ph.D. I am a Distinguished University Professor of Mathematics and Statistics at the University of South Florida, Tampa, Florida. In addition to my graduate educational responsibilities, I am also an expert and professional consultant in my specialty—statistics. I am a Fellow of the American Statistical Association and the

International Statistical Institute, among others. I am competent to testify as to all facts and issues addressed in this report.

2. I prepared the attached report for Odyssey Marine Exploration Inc. in support of its Response to Claimant, Spain's, Motion to Dismiss or for Summary Judgment in this case.

3. I have carefully reviewed the opinion of Carmen Marcos Alonso, (Dkt. 131-18) the numismatics expert used by Spain concerning the origin of the coins recovered by Odyssey and identifying the vessel that contained these coins. Thus, I will comment on the validity of the sampling process and the classification remarks of the expert.

Sampling

Alonso, in a systematic matter, inspected a very small number of coins, 1,505 (1,295 silver and 210 gold coins), out of more than 580,000 coins recovered and made available to her. The conclusions that were stated by the expert concerning the origin of the coins are wrong and very misleading concerning the nature of the total population of the subject coins for the following reasons:

- (1) The expert should have a priorily identified number of coins that should be inspected with an acceptable degree of confidence so that she could infer as to the origin of the total collection. That is, I have inspected n coins and based on my inspection of them, I can conclude, for example, with at least 95% confidence that the nature of the coins in question is "x." An explanation of the subset (number of coins examined) as related to the number of the whole (number of coins recovered), and the degree of certainty of the conclusion should be included in

any statistical analysis. Such an explanation is clearly lacking from Ms. Alonso's statement. In fact, it is clear from review of the opinion, that such an analysis was not performed.

- (2) The number of coins identified to be inspected must be randomly selected (not systematically) from the totality of the number of coins.
- (3) Under the present circumstances of the total collection of the coins, it is not possible to perform any valid sampling procedure concerning the origin of the coins. (Ms. Alonso has considered neither the recovery methods used by Odyssey, nor the storage or categorization systems used by the conservators, which are specifically designed to keep the coins organized in a systematic manner. Also, a truly random sampling would require disturbance of clumps of coins and analysis of coins which have not reached the final stage of conservation. Indeed, Ms. Alonso has examined only those coins which have been finally conserved – a sampling which is anything but random).

Thus, I finally conclude that the expert did not use anything close to a scientifically acceptable procedure to identify the origin of the coins discovered. Again, it is impossible to perform such a task given the present condition of the coin collection, and the expert's conclusions on the subject matter are wrong and misleading.

Vessel Classifications

There are no scientific or statistical bases for the expert to have identified a vessel from which the coins originated. Again, her opinion is based on a very small and extremely biased sample of the coins.

There are well-structured statistical methods that, when used correctly, can identify the amount of information necessary and a very precise procedure on how this information must be obtained from the totality of the coins recovered, along with other attributable variables. Only with this information at hand, could we conclude with any degree of accuracy which, from a number of vessels, the coins originated.

Furthermore, it would be necessary to have a database of the types of coins that various vessels carried during the historical period, noted from the dates on the coins viewed, in order to identify one vessel, out of several or many, with a certain degree of confidence. Even then, an analysis would require proper sampling methods, using a random sampling (which as discussed is presently not possible to obtain), and any conclusion derived therefrom could never be 100% accurate.

Finally, the numismatics expert, Carmen Marcos Alonso's statement “. . . conclude with confidence that the coins Odyssey retrieved from the site were taken from *Mercedes*,” is irresponsible and misleading. The expert has not performed adequate statistical procedures to make such a conclusion.

4. I have personal knowledge regarding the information contained herein and hereby swear that the information is true and accurate to the best of my knowledge.

I CERTIFY THAT THE ABOVE IS TRUE AND CORRECT TO THE BEST OF MY
KNOWLEDGE

Chris P. Tsokos
Chris P. Tsokos, Ph.D.

STATE OF Florida)
COUNTY OF Hillsborough)

The foregoing instrument was acknowledged before me this 12th day of
November, 2008, by Chris P. Tsokos, who is personally known by me.

Imelda B. Higgins
Notary Public

My Commission expires: _____

