

Orezone Increases Segá Project Gold Resources

January 5, 2010 – Orezone Gold Corporation (ORE: TSX) is pleased to announce an increase in the NI 43-101 compliant gold resource estimate of its Segá Project in Burkina Faso, West Africa (see Table 1). The updated estimate incorporates an additional 8,050m of RC drilling (+10%) and 4,421m of diamond drilling (+53%). In 2009, a quality control program was also undertaken, which included re-logging all of the previous RC and DD holes to further refine and standardize the geological model. As part of this quality control program, the frequency of density determinations from core samples was increased in old and new holes, with the database now including 5,501 valid determinations (+137%). The result of this work is a geological model that is more robust and can be used in a scoping study with a higher degree of confidence than the previous 2009 geological model. This work provides the foundation for advancing the Segá Deposit to the feasibility stage for a small heap leach operation similar to the neighbouring Kalsaka Mine (less than 20km to the south) owned by Cluff Gold.

Table 1: January 2010 Orezone NI 43-101 resource estimate for the Segá deposit, Burkina Faso, West Africa.

Category	Tonnes*	Au Grade (g/t)	Ounces
Indicated	8,289,128	1.69	450,366
Inferred	2,907,556	1.58	147,344

*0.5 g/t Cut-off

Dr. Pascal Marquis, V.P. Exploration for Orezone is a qualified person under NI 43-101 and has overseen the resource estimate. Dr Marquis utilized the same resource modeling techniques as those used for the previous resource estimates that were completed by Orezone and independently audited and validated by Met-Chem Canada Inc.. Met-Chem did not audit nor validate the January 2010 resource estimate.

Table 2: January 2009 Met-Chem Canada Inc. NI 43-101 resource estimate for the Segá deposit, Burkina Faso.

Category	Tonnes*	Au Grade (g/t)	Ounces
Indicated	7,150,000	1.94	446,000
Inferred	1,320,000	1.50	64,000

*0.5 g/t Cut-off

Met-Chem Canada Inc. audited and validated the January 2009 resource estimate performed by Orezone.

Orezone will complete a scoping study focusing on the near-surface oxide and semi-oxidized ores that represent about 50% of the total resources, including about 260,000 ounces in the Indicated category. The oxide and semi-oxidized ores exhibit heap leach recoveries of 80% or more based on a bottle-roll test results. A detailed metallurgical study, including heap leach column tests, will be completed on the oxidized, semi-oxidized and sulphide ores as part of the scoping study. The potential to continue to expand the oxide and sulphide resources at Segá is high with many untested targets in the 250km² land package.

“We are pleased with the geological continuity and the increase in resources at Segá. The success of the adjacent Kalsaka Mine confirms the significant value of this project to Orezone and its stakeholders. The results validate Orezone’s ability to add additional resources through drilling and allow the company the confidence to take the deposit to the feasibility stage.” stated Ron Little, President and CEO for Orezone.

Orezone is a gold exploration and development company with more than 15 years experience in West Africa, one of the world’s fastest growing gold producing regions. Orezone delineated, developed, financed and sold Burkina Faso’s largest deposit (Essakane) to IAMGOLD for \$350M and continues to focus on developing the rest of its pipeline of advanced projects including Bombore, one of the largest deposits in Burkina Faso. Orezone’s mission is to create wealth by discovering and developing gold resources in an efficient and responsible manner for the benefit of its shareholders and other stakeholders.

For further information please contact Orezone at (613) 241–3699 or Toll Free: (888) 673–0663

Ron Little, CEO, rlittle@orezone.com

Pascal Marquis, V.P. Exploration, pmarquis@orezone.com

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FORWARD-LOOKING STATEMENTS are based on the opinions and estimates of management at the date the statements are made, and are subject to a variety of risks and uncertainties and other factors that could cause actual events or results to differ materially from those projected in the forward-looking statements. These factors include the inherent risks involved in the exploration and development of mineral properties, the uncertainties involved in interpreting drilling results and other geological data, fluctuating metal prices, the possibility of project cost overruns or unanticipated costs and expenses, uncertainties relating to the availability and costs of financing needed in the future and other factors. The Company undertakes no obligation to update forward-looking statements if circumstances or management's estimates or opinions should change. The reader is cautioned not to place undue reliance on forward-looking statements.