

Suite 1103-750 West Pender Street, Vancouver, B.C., Canada, V6C 2T8 ph: 604.689.7644 + fax: 604.689.7645 + www.almadenminerals.com

NEWS RELEASE December 21, 2010 Trading Symbols: AMM :TSX, AAU : NYSE: AMEX www.almadenminerals.com

ALMADEN COMPLETES 2010 IXTACA PROGRAM, ANNOUNCES 2011 PLANS

Almaden Minerals Ltd. ("Almaden" or "the Company"; AMM:TSX; AAU:NYSE) is pleased to announce that it has completed its successful 2010 drill program at the Ixtaca zone on its 100% owned Tuligtic project, Mexico. Operations have ceased for a Christmas break and will resume in January. Fourteen holes were drilled in 2010 for a total of 6465.12 meters (see drill map attached). Results from the first six holes (TU-10-1 through TU-10-6) have already been announced (see Almaden news releases of August 9, August 17th, November 23 and November 24, 2010). Almaden anticipates announcing complete results from holes TU-10-7 through TU-10-14 in early January. The 2011 drill program is scheduled to commence in mid to late January with two drill rigs, to be expanded as necessary.

J.D. Poliquin, Chairman of Almaden commented, "Previously announced step out drilling in hole TU-10-6 confirmed the presence of the broad zone of epithermal veining at Ixtaca 100 meters northeast of where the initial discovery was made. Further holes have been drilled to confirm the orientation of the veins in this blind discovery. This drilling also traced the continuity of the vein zone along strike and to depth. We are very pleased with this drilling discovery and eagerly anticipate commencing 2011 with a drill program designed to test the strike extent and vertical continuity of the Ixtaca zone of veining which appears to be marked by strong IP and gold in soil responses for at least a kilometre northeast of present drilling."

The overall vein zone is thought to have a north-easterly trend. While true widths still cannot be calculated with confidence at this time, the vein zone is currently interpreted to be steeply dipping. The drilling completed to date has traced mineralisation over roughly 300 meters along this northeast trend. The Ixtaca vein zone is a blind discovery with little surface manifestation and the 2010 drill program was successful in confirming its general orientation. Based upon observations at surface and of core as drilling progresses, there is now thought to be at least two major sets of veins within the vein zone; one along bedding striking roughly 150 to 170 degrees and one perpendicular to bedding striking roughly 50 to 70 degrees. Holes TU-10-2 through TU-10-6, TU-10-9, TU-10-11, TU-10-13 and TU-10-14 were drilled sub parallel to bedding at 150 degrees azimuth. While this orientation is deemed best to cross the vein zone perpendicularly, management is reviewing if this drilling azimuth may in fact be parallel to the other major vein set. Holes TU-10-1, TU-10-9, TU-10-10 and TU-10-12 were drilled at 100 degrees, an azimuth thought best to intersect both vein sets. Due to mechanical difficulties, hole TU-10-9 could not be completed from the location at which it was collared and was terminated before getting to the target depth. Holes TU-10 through TU-10-14 intersected the vein zone roughly where it was expected. Once all assay results have been received the company will compile and interpret the complete drilling dataset to determine the best azimuth for future drilling.

Induced polarization ("IP") geophysics was conducted over the Ixtaca zone in 2010 as well as extensive soil sampling. A preliminary anomaly map of these results is attached to this news release. This map will be updated when further data, currently being processed, are received in final form. The geophysical and geochemical data indicate that coincident IP chargeability and gold in soil highs, thought to represent the vein zone, continues to the north and south from the area drilled. These data also show that the vein zone may have a northeast orientation in the vicinity of the drilling that changes to a more north-south orientation away from this discovery area. The furthest holes to the southwest, TU-10-7 and TU-10-8 both drilled on the same section, intersected a shale unit which appears to have been a poor host to veining as less veining was noted. These holes may also have been located off the vein trend as the IP and soil anomalies suggest a more north-south trend here. Further to the south ash and fields may be masking the geochemical soil response of the vein zone. To the northeast the zone has been traced with strong coincident IP chargeability and soil geochemistry for at least a kilometer beyond hole TU-10-6, the furthest northeast drilled to date. The 2011 drill program will focus on testing the strike extent of the vein zone both to the north/northeast and south/southwest.

Morgan J. Poliquin, Ph. D., P. Eng., the President and CEO of Almaden, and a qualified person under the meaning of National Instrument 43-101, reviewed the technical information in this news release. The analyses reported were carried out at ALS Chemex Laboratories of North Vancouver using industry standard aqua regia, ICP and fire assay techniques. Blanks, field duplicates and certified standards were inserted into the sample stream as part of Almaden's quality assurance and control program which complies with National Instrument 43-101 requirements. Gold equivalent ("AuEq" or "Gold Eq.") and silver equivalent ("AgEq" or "Silver Eq.") values were calculated using silver to gold ratios of 50 to 1. Intervals that returned assays below detection were assigned zero values. Metallurgical recoveries and net smelter returns are assumed to be 100% for these calculations. Intervals that returned assays below detection were assigned zero values. Registered geologist Jim Lunbeck, a qualified ("QP") person under the meaning of NI 43-101, will be the QP and project manager of Almaden's 2011 Ixtaca program.

About Almaden

Almaden is a well-financed (no debt, approximately \$C25 MM in working capital) mineral exploration company working in North America. The company has assembled mineral exploration projects, including Tuligtic, through its grass roots exploration efforts. While the properties are largely at early stages of development they represent exciting opportunities for the discovery of significant gold, silver and copper deposits as evidenced at Ixtaca. Currently six projects (Caldera, Caballo Blanco, Tropico, Nicoamen River and Matehuapil and Merit), are optioned to separate third parties who each have the right to acquire an interest in the respective project from Almaden through making certain payments and exploration expenditures. Four further projects are held in joint ventures. Almaden also holds a 2% NSR interest in 11 projects. Almaden's business model is to find and acquire mineral properties and develop them by seeking option agreements with others who can acquire an interest in a project by making payments and exploration expenditures. Through this means the company has been able to expose its shareholders to discovery and capital gain without the funding and consequent share dilution that would be required if the company were to have developed these projects without a partner. The company intends to expand this business model, described by some as prospect generation, by more aggressively exploring several of its projects including the Ixtaca Zone.

On Behalf of the Board of Directors

<u>"Morgan Poliquin"</u> Morgan J. Poliquin, Ph.D., P.Eng. President, CEO and Director Almaden Minerals Ltd.

The Toronto Stock Exchange and NYSE AMEX have not reviewed nor accepted responsibility for the adequacy or accuracy of the contents of this news release which has been prepared by management. Statements contained in this news release that are not historical facts are forward looking statements as that term is defined in the private securities litigation reform act of 1995. Such forward -looking statements are subject to risks and uncertainties which could cause actual results to differ materially from estimated results. Such risks and uncertainties are detailed in the Company's filing with the Securities and Exchange Commission. Except for the statements of historical fact contained herein, certain information presented constitutes "forward-looking statements" within the meaning of the United States Private Securities Litigation Reform Act of 1995 and Canadian securities laws. Such forward-looking statements, including but not limited to, those with respect to potential expansion of mineralization, potential size of mineralized zone, and size and timing of exploration and development programs, estimated project capital and other project costs and the timing of submission and receipt and availability of regulatory approvals involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievement of Almaden to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. Such factors include, among others, risks related to international operations and joint ventures, the actual results of current exploration activities, conclusions of economic evaluations, uncertainty in the estimation of mineral resources, changes in project parameters as plans continue to be refined, environmental risks and hazards, increased infrastructure and/or operating costs, labour and employment matters, and government regulation and permitting requirements as well as those factors discussed in the section entitled "Risk Factors" in Almaden's Annual Information form and Almaden's latest Form 40-F on file with the United States Securities and Exchange Commission in Washington, D.C. Although Almaden has attempted to identify important factors that could cause actual results to differ materially, there may be other factors that cause results not to be as anticipated, estimated or intended. There can be no assurance that such statements will prove to be accurate as actual results and future events could differ materially from those anticipated in such statements. Almaden disclaims any intention or obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, other than as required pursuant to applicable securities laws. Accordingly, readers should not place undue reliance on forwardlooking statements.



