

VANCOUVER, BC--(Marketwired - June 13, 2016) - [Almaden Minerals Ltd.](#) ("Almaden" or "the Company") (TSX: AMM) (NYSE MKT: AAU) is pleased to report on the on-going development and exploration activities at the Company's 100% owned Tuligtic project and the Ixtaca gold-silver deposit located in Puebla State, Mexico.

## Development Activities

Advanced engineering and environmental baseline studies designed to meet the requirements of a Pre-Feasibility Study ("PFS") and the submittal of an environmental permit application and risk assessment to the Mexican regulatory agency responsible for mine permitting are ongoing.

As announced on October 19, 2015, Almaden secured the option to purchase the Rock Creek mill, which only operated for several months before the mining operation was curtailed in 2008 and has been kept in excellent condition during subsequent care and maintenance. The mill was built to process 7,000 tonnes per day, and includes a three-stage crushing plant, gravity circuit, ball mill, flotation cells, leaching facilities, conveyors, metallurgical and chemical fire assay laboratories, a water treatment plant, full electrical circuitry including generators, and a number of spare parts for the ball mill and crushers.

In order to demonstrate the impact of this option agreement on Ixtaca economics, Almaden updated its preliminary economic assessment ("PEA") on Ixtaca (see Amended PEA filed on SEDAR on April 13, 2016). This study demonstrates that for initial capital costs of US\$100 million, the Ixtaca project shows (after tax basis) a 30% IRR and a US\$166 million NPV (5%) using \$1150 gold and \$16 silver all the while producing on average 108,000 ounces AuEq per year (using a 72:1 silver:gold ratio) for approximately 13 years.

In addition to reflecting the Rock Creek mill in the economics, the Amended PEA incorporates a smaller, near surface and payback-focussed pit, and optimised waste placement and tailings management facilities in addition to other changes. Subsequent site visits by the independent consulting engineering team of Moose Mountain Technical Services and Knight Piesold Ltd. have identified further optimization opportunities through updated waste placement and facilities locations. The related geotechnical, geomechanical, and hydrologic field programs will be completed to a PFS level this year, allowing for the completion of a PFS and submittal of environmental permits shortly afterwards.

To date Almaden has completed or initiated the following studies:

- Hydrologic studies including the drilling of water test wells and installation of hydrologic equipment for baseline monitoring of existing subsurface water flow and quality on the project site;
- Baseline surface water quality and flow measurements;
- Geochemical characterization of rock materials;
- Condemnation drilling of areas where mine infrastructure and waste rock placement is planned;
- Geotechnical drilling to confirm foundation, footing and subsurface material quality;
- Geomechanical drilling to confirm rock strength, hardness and pit slope parameters;
- PFS level metallurgical testwork;
- Flora and fauna studies;
- Installation of a weather station.

## Exploration Activities

In addition to the ongoing PFS program, Almaden is initiating an exploration drilling program designed to test both regional and near resource targets. Recently an induced polarisation ("IP") geophysical survey was completed over a prospective but covered area, along strike and southwest of the resource. The survey was done in a roughly 2 kilometre gap in drilling between the resource area and the Tano Zone, located roughly 2 kilometres southwest along strike from the resource. The IP survey in this area defined both weak chargeability and resistivity targets similar to the responses seen in the resource area. These targets will be tested in the upcoming drill program. A complete list of targets where further work and/or drilling is planned include (see map appended to news release):

- Tano Zone: Located roughly 2 km southwest along strike from the Ixtaca resource area. Past drilling at the Tano Zone intersected 2.00 meters @ 1.76 g/t gold and 5.45 g/t silver. New IP geophysics has defined an undrilled target in this area as well as in the untested area between the Tano zone and the resource.
- SE Clay alteration zone: This area is located immediately south of the resource area and is marked by clay alteration and epithermal elemental markers similar to those observed in the volcanic hosted clay alteration immediately above the resource.
- Ixtaca East Zone: Gold values in soil and silt samples are elevated in this area of clay alteration. Further mapping is planned before drilling. This area is located to the NE along strike from the Ixtaca deposit.

- **Near Resource Drilling:** Resource drilling intersected veins adjacent to the resource not incorporated into the Amended PEA pit. A review of past drilling data indicates the potential for finding additional veins parallel to the Ixtaca vein system and immediately adjacent to the resource. In the Main Ixtaca Zone, IP chargeability responses correlate well with vein density and grade. Untested IP chargeability targets adjacent to the resource will also be tested in this program. The potential for near resource discovery is highlighted by Section 10 + 550E where hole TU-11-056, drilled in 2011, intersected two high grade veins which returned 1.26 metres @ 2.45 g/t gold and 854 g/t silver and 0.95 metres @ 13.86 g/t gold and 2577 g/t silver respectively (see attached section) These intersections are outside and north of the Amended PEA pit and point to the potential for additional parallel veining.

J. Duane Poliquin, chairman of Almaden commented: "We continue to advance Ixtaca towards a production decision. We are proud of our hardworking team that has allowed the Company to effect significant progress while limiting shareholder dilution despite the downturn in mining. We look forward to updating shareholders with further progress in the coming months as we focus on the preparation of a PFS study and permit submittal as well as exploration. Going forward we will begin to build a mining team to handle the final push towards production."

#### About the Ixtaca Drilling Program and the Ixtaca Project

The 100% owned Ixtaca Zone is a blind discovery made by the Company in 2010 on claims staked by the Company. The deposit is an epithermal gold-silver deposit, mostly hosted by veins in carbonate units and crosscutting dykes ("basement rocks") with a minor component of disseminated mineralisation hosted in overlying volcanic rocks.

The Ixtaca deposit is located in a developed part of Mexico in Puebla State, the location of significant manufacturing investments including Volkswagen and Audi plants. The project is accessed by paved road and is roughly 20 kilometres from an industrial park with rail service where significant manufacturers such as Kimberly Clarke have facilities. Any potential mining operation at Ixtaca would be located in an area previously logged or cleared with negligible to no current land usage.

The Company has access to the entire project area and works closely with local officials and residents. The Company has employed roughly 70 people in its exploration program who live local to the Ixtaca deposit. For example, local employees have made up virtually all the drilling staff and have been trained on the job to operate the Company's wholly owned drills. The Company has implemented a comprehensive science based and objective community relations and education program for employees and all local stakeholders to transparently explain the exploration and development program underway as well as the potential impacts and benefits of any possible future mining operation at Ixtaca. The Company regards the local inhabitants to be major stakeholders in the Ixtaca deposit's future along with the Company's shareholders. Every effort is being made to create an open and clear dialogue with our stakeholders to ensure that any possible development scenarios that could evolve from the anticipated PFS are properly understood and communicated throughout the course of the Company's exploration and development program. To better explain the impacts of a mining operation at Ixtaca the Company has conducted numerous tours for local residents to third party operated mines in Mexico so that interested individuals can form their own opinions based on first-hand experience. The Company invites all interested parties to visit [www.almadenminerals.com](http://www.almadenminerals.com) to find out more about our community development, education and outreach programs.

#### Technical Details

The potential quantity and grade of these exploration targets described in this news release are conceptual in nature. There has been insufficient exploration and/or study to define these exploration targets as a Mineral Resource. It is uncertain if additional exploration will result in these exploration targets being delineated as a Mineral Resource. The potential quantity and grade of these exploration targets has not been used in the Amended PEA.

The Main Ixtaca and Ixtaca North Zones of veining are interpreted to have a north-easterly trend. Holes to date suggest that the Main Ixtaca and Ixtaca North Zones are sub vertical with local variations. This interpretation suggests that true widths range from approximately 35% of intersected widths for a -70 degree hole to 94% of intersected widths for a -20 degree hole. The drilling completed to date has traced mineralisation over 1,000 meters along this northeast trend. The Chemalaco (Northeast Extension) Zone strikes roughly north-south (340 azimuth) and dips at 55 degrees to the west. This interpretation suggests that true widths range from approximately 82% of intersected widths for a -70 degree hole to 99% of intersected widths for a -40 degree hole.

Morgan J. Poliquin, Ph.D., P.Eng., a qualified person ("QP") under the meaning of NI 43-101, the President CEO and a Director of the Company, reviewed the technical information in this news release. The analyses reported were carried out at ALS Chemex Laboratories of North Vancouver using industry standard analytical techniques. For gold, samples are first analysed by fire assay and atomic absorption spectroscopy ("AAS"). Samples that return values greater than 10 g/t gold using this technique are then re-analysed by fire assay but with a gravimetric finish. Silver is first analysed by Inductively Coupled Plasma - Atomic Emission Spectroscopy ("ICP-AES"). Samples that return values greater than 100 g/t silver by ICP-AES are then re analysed by HF-HNO<sub>3</sub>-HClO<sub>4</sub> digestion with HCL leach and ICP-AES finish. Of these samples those that return silver values greater than 1,500 g/t are further analysed by fire assay with a gravimetric finish. 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.

#### About Almaden

Almaden owns 100% of the Tuligtic project in Puebla State, Mexico, subject to a 2% NSR royalty held by [Almadex Minerals Ltd.](#) Tuligtic covers the Ixtaca gold/silver deposit, which was discovered by Almaden in 2010.

On Behalf of the Board of Directors

Morgan J. Poliquin, Ph.D., P.Eng.

President, CEO and Director

[Almaden Minerals Ltd.](#)

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