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## **SIGNIFICANT PROGRESS TOWARDS COMPLETION OF THE PRE-FEASIBILITY STUDY REPORTED ON METATES**

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Chesapeake Gold Corp. (“Chesapeake”) is pleased to provide an update to various activities and related developments on its 100% owned Metates gold-silver project located in Durango State, Mexico. Metates hosts one of the largest known undeveloped gold and silver deposits containing 17.2 million ounces gold, 466 million ounces silver and 3.4 billion pounds zinc (Measured + Indicated) and 2.6 million ounces gold, 62 million ounces silver and 360 million pounds zinc (Inferred). The April 2011 updated Preliminary Economic Assessment (“PEA”) reported that the Metates project would produce an average of 759,000 ounces gold and 20.0 million ounces silver annually over a 19 year mine life with strong project economics.

Metates is envisioned as a conventional open pit mining operation with ore fed to a crushing/grinding circuit with the ground material fed to a bank of flotation cells. The bulk sulphide flotation concentrate is then transported downhill to the Ranchito processing site via a slurry pipeline. At Ranchito, the concentrate is placed into an autoclave circuit where the sulfides are oxidized prior to cyanidation to recover the gold and silver as dore bars. The zinc in the concentrate will be recovered as zinc cathode using solvent extraction/electrowinning methods (SX/EW). Based on the results of pilot and lab scale metallurgical test work reported in September, current overall recoveries based on the above flowsheet average 90% for gold, 77% for silver, and 81% for zinc.

### **Natural Gas Pipeline and Electric Power**

Based on the costs estimated in the PEA, approximately 35%-40% of the total operating cost per tonne of ore processed is related to electric power costs. The PEA assumed power was generated from a dedicated coal fired power plant to be constructed in Tobolampo, a west coast industrial port in Sinaloa State. In November 2011, the Mexican national power commission (Comision Federal Electricidad or CFE) announced their intent to construct a natural gas pipeline along the northwest coast of Mexico. The pipeline would extend south from the current terminus at Hermosillo approximately 900 kilometres to Mazatlan. Gas would be supplied from existing pipelines in the southwest United States. The gas pipeline is slated for completion in 2015.

The importance of this gas pipeline to the Metates project is significant on several fronts. First, a gas fired power plant often has lower operating costs per unit of energy produced and is more environmentally friendly relative to a coal fired plant. Secondly, the capital cost to construct a gas fired plant is approximately one half or less that of a coal fired plant of similar capacity. Third, the pipeline allows for more flexible siting options for the power plant which may result in further capital cost savings. In addition, the gas pipeline will allow for the construction of a smaller spur line to the Ranchito processing site where the gas can substitute for coal as the fuel source for the lime kiln and possibly as a combustion source to drive the steam turbines linked to the oxygen plant installation.

Pace Global, a leading energy consulting and management company with headquarters in Fairfax, Virginia, (“Pace”), has been engaged by Chesapeake to advise and support the Company towards its goal to secure a long term, low cost power supply agreement from a third party owner/operator. Pace has reported that several independent power producers have expressed interest in financing and operating a gas fuelled power plant for the Metates project.

Air Products of Allentown, Pennsylvania, (“Air Products”), a leading worldwide supplier of large air separation plants has been providing design and costing guidance for the oxygen plant installation related

to the autoclave circuit as part of the Metates pre-feasibility study (“PFS”). Air Products has recently developed a new oxygen production technology (Ion Transfer Membrane or ITM) that offers significantly lower operating and capital costs to produce high purity oxygen while consuming less water and with a smaller physical installation footprint. Oxygen represents the single largest area of operating cost at the Metates project owing to electric power consumption. Air Products believes this technology will have a significant positive impact on the project’s operating costs. Commercialization of this technology for large applications is expected to be compatible with the development timeframe of the Metates project.

### **Integrated Mine Waste Rock and Flotation Tailings Storage Facility**

Work has continued on the optimization of waste rock and flotation tailings storage at the Metates site by Ausenco Vector (“Vector”) of Denver, Colorado. In the PEA, separate storage facilities were designed for the waste rock and flotation tailings at the Metates mine site. Detailed engineering and design work has confirmed that disposal of both of these products in a common facility located in an area of favourable natural topography within the Arroyo San Nicolas drainage is technically feasible as well as economically and environmentally attractive. In addition the integration of these two waste streams will allow the implementation of a range of acid rock drainage mitigation options using a portion of the tailings as a benign “cap and cover” material. Chesapeake is also evaluating the option of using various tailings dewatering methods to both conserve water and provide even greater flexibility with the placement and operation of this integrated storage facility. Design for closure options currently under consideration includes the partial backfilling of the pit and establishing a natural outlet to eliminate a potential pit lake. Significant long term capital and operating cost savings are associated with this common storage facility and related mine closure.

Work by Vector is also moving forward at the Ranchito site where integrated disposal of both the autoclave acid neutralization residue with the precious metal leach tailings is being evaluated. Characterization testing of both of these materials is on-going. Disposal of both of these materials in a common facility also appears to be geotechnically feasible and significantly less expensive versus the construction and operation of two separate facilities.

### **Metallurgy**

Additional sulphide flotation testing evaluating the impact of a suite of different reagents along with grind size and pH has been completed at Resource Development Inc. of Wheatridge, Colorado. The results of this flotation test matrix series is now available and are currently under review. Preliminary results suggest that high (+90%) gold recoveries are obtained for all test conditions and samples tested. Chesapeake continues to focus on optimizing flotation conditions that will consistently improve silver recoveries to the concentrate.

### **Geotechnical Investigations**

During the 2011 drilling campaign 12 geotechnical holes totalling 3,219 meters were completed as proposed by Call & Nicholas, Inc. of Tucson, Arizona, (“CNI”), to support pit slope recommendations. CNI are integrating the results obtained from these holes along with collected laboratory and field data to determine the pit slope angles to be used in the PFS design pit. CNI is nearing the completion of their studies. Vector has evaluated the results from a comprehensive investigative program that included a series of geophysical surveys, test pits and bore holes to evaluate ground conditions in areas of proposed high impact site facilities at both the Metates and Ranchito sites. These investigations are nearing completion with a few boreholes remaining. Results to date support the proposed location of these facilities as shown in the PEA.

## **Environmental Studies**

Environmental baseline data collection and reporting has been completed for the Metates, Ranchito and connecting infrastructure corridor with no significant environmental issues being identified. The environmental baseline work included a survey of biological, cultural and socio-economic resources. A number of surface and groundwater sampling stations have been established at both the Metates and Ranchito sites and a program of regular sampling is now underway on a quarterly basis.

## **Other Pre-Feasibility Study Investigations**

M3 Engineering & Technology of Tucson, Arizona (“M3”) is moving forward with a wide range of project related activities and recently finished the general arrangement drawings for the Metates site. Completed comminution testing and bond index work classified the Metates material as generally soft to moderately soft with reference to impact breakage and abrasion. Based partially on these results, M3 has determined that a more conventional SAG mill/ball mill circuit will be included in the PFS rather than the high pressure grinding rolls utilized in the PEA with a considerable capital cost savings. M3 is also working on obtaining vendor quotations for major capital cost items including crushing, grinding, flotation, thickening, precious metal recovery circuits and lime kiln. Sherritt Technologies will be developing the detailed design and capital and operating cost estimates for the pressure oxidation circuit for the PFS as well as the zinc recovery plant.

M3 has completed their initial design of an alternate access road and concentrate pipeline route from the Metates mine site to the Ranchito processing site. As currently surveyed, the road route is about 127 kilometers long with the pipeline perhaps 5-10% shorter owing to elimination of road switchback segments. The costing of the road and pipeline is underway.

## **2011 Drill Program**

The core drilling program for 2011 has now been finished with a total of 53 holes totalling 24,255 meters. Chesapeake drilled 30 infill holes totalling 14,960 meters to convert Inferred class material to Measured class, and 11 step-out holes totalling 5,307 meters. Final assays from the last core holes are expected this month. Independent Mining Consultants of Tucson, Arizona, (“IMC”), will be incorporating the 2011 drill data into a new resource estimate which should be available in January 2012. The new resource will be the basis for the mine schedule and reserve estimate for the upcoming PFS.

## **Summary**

The recent activities and developments reported represent significant and material new information that will enhance the economic profile of the Metates project. The construction of the natural gas pipeline will address the largest single area of operating cost at the Metates project at no direct capital cost to Chesapeake. Moreover, this pipeline affords the opportunity for further operating cost savings and synergies in numerous other areas. Chesapeake looks forward to integrating these new positive developments into the upcoming PFS. M3 and numerous other coordinating consultants working on the PFS anticipate the summary results of the study will be available during the first quarter of 2012.

Chesapeake currently has 39.8 million shares outstanding (47.5 million fully diluted) and \$14 million in cash and liquid investments.

Mr. Gary Parkison, CPG, Chesapeake Vice President Development and a Qualified Person as defined by NI 43-101 supervised the preparation of the technical information in this release.

For more information on Chesapeake and its Metates Project, please visit our website at [www.chesapeakegold.com](http://www.chesapeakegold.com) or contact investor relations at 604-731-1094.

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