

BUCKINGHAM COUNTY BRIEFING

Mineral Exploration by Aston Bay Holdings

▶ **Aston Bay Holdings Background**

Aston Bay Holdings LTD is a Toronto based minerals exploration company in the business of identifying and developing potentially valuable mineral deposits. It operates locally through its U.S. subsidiary, Blue Ridge Mining LLC.

Aston Bay has entered into agreements with local private land holders in Buckingham County, Virginia by which Aston Bay may conduct mineral exploration activities within areas of interest.

▶ **Mineral Exploration History**

Modern exploration activities in the region began in 1995 by BHP Minerals and Cominco American Inc. After 5 years of work, this partnership had invested approximately \$4.5M in the program which included sampling, limited diamond drilling and an airborne geophysical survey.

Jack's Fork Exploration Inc. began its exploration work in Buckingham County in 2000. Over the period 2000 – 2008 the Jack's Fork program also included sampling, diamond drilling, and other activities similar to those previously conducted by BHP. Six holes were drilled in the area by Jack's Fork in 2016. In late 2018, Aston Bay Holdings has purchased Jack's Fork and also the dataset acquired by BHP and Cominco.

In early 2019, Aston Bay began conducting mineral exploration activities under its subsidiary, Blue Ridge Mining LLC. These data gathering activities use the same equipment, tools, and processes that were used by its predecessors in the area. Aston Bay has drilled 23 holes to date, acquiring approximately 2,900 meters of rock core samples.

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▶ **Mineral Exploration vs. Mining**

Exploration activities are a necessary predecessor to any mining enterprise, but they are very different from mining in their purpose, scale, and land impact. Furthermore, an active exploration program does not by itself indicate that mining will eventually occur, or even that it would be a desirable investment. The road from exploration to mine production is a long one that involves multiple regulatory approvals, community input and a great deal of technical work normally encompassing a space of several years.



The purpose of mineral exploration activities is to collect information on the subsurface and surface geology and mineral of interest. As this information is collected, logged and accumulated over time, geologists use it to build a computer resource model, which gives them a view of the prospective ore body. As more exploration data is collected, the confidence in the accuracy of the resource model improves. If this emerging resource model looks promising, only then at some point, a much more significant set of studies must be done to see if the ore 1) can be mined and processed profitably and 2) can be permitted successfully – both questions which must be addressed thoroughly before there is an understanding of whether or not the area can be mined. Most exploration projects will invest tens of millions of dollars and several years in exploring questions (1) and (2), the latter of which normally includes an extensive engagement with the local community.

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▶ **Aston Bay’s Mineral Exploration Equipment**

Mineral exploration uses drilling rigs that are very similar to those used for geotechnical work or the drilling of wells for water sourcing. Below is a picture of one of Aston Bay’s diamond drill rigs and a well drilling rig for comparison.



Diamond drill rigs



Well drilling rig

These drills normally require a crew of two people to operate. The drill rigs are transported to and from the drill sites using existing logging roads with minimal surface disturbance (a few square yards) that is rehabilitated to its original state upon completion of the drill hole. In addition, the open drill hole is cemented from bottom to top in accordance with best practices. The drill rigs are the largest types of equipment used in previous and planned exploration activities.

The cylinder of rock (the “drill core”) extracted in the drilling process is approximately two inches in diameter. The drill core is then split off-site, with half of the core analyzed in an assay laboratory. The results of these analyses at Buckingham indicate that no deleterious or dangerous elements are present in the rock indicating a very clean drilling process.

In addition to collecting subsurface samples using drilling, Aston Bay’s field exploration program also includes the collection of soil and rock samples from the surface in areas of interest. These samples are small enough to be collected by hand tools.

▶ **Next Steps**

Aston Bay’s exploration activities were suspended on account of COVID-19 in early 2020 but they were able to complete the planned program in mid-summer. The company and its subcontractors have developed a comprehensive safety plan for the COVID-19 era and plans to re-start its activities in October 2020.

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Aston Bay and its local landowner partners are committed to working with Buckingham County and other local officials in a transparent, collaborative manner and in accordance with all local codes and ordinances.