

Innovation Case Study: Anaconda Mining Inc. (Pine Cove)

Pine Cove Mine, located on the Baie Verte Peninsula, is the flagship operation of Anaconda Mining Inc. Construction of the small footprint open-pit gold mine and milling operation started in 2007. Production commenced in 2008, followed by an expansion in the production facilities in 2010. Today Pine Cove is a major employer with approximately 50 employees plus contractors. As a result, Anaconda injects more than ten million dollars each year into the local economy.

The success of the mine has played an integral role in the transformation of the Toronto-based company, which grew from a 2010-2011 net loss of \$10 million dollars with control of 660 hectares and a 60% stake in the mine to a net income of \$7.4 million dollars with 6000 hectares and 100% stake in the mine in 2012-2013.

Allan Cramm, General Manager of Anaconda's Pine Cone Mine believes that innovation is critical for the continued success of the mine. He is a fifth generation miner and has been involved in all four major gold mining operations in Newfoundland to date. As a result, Allan is well aware of the challenges of operating in rural Newfoundland and Labrador and the importance of being innovative. For Pine Cove Mine, this starts with an innovative corporate culture and support for innovation within the company. You rarely hear "*It's not going to work, or it is not a good idea*" at Pine Cove, he explains, because the mine has a culture of innovation where everyone is engaged in the development of new ideas and shares in the successes and failures.



Figure 1 Pine Cove Mine, Baie Verte, NL (Anaconda Mining Inc., 2013)

Anaconda uses innovative human resources approaches to engage employees in decisions ranging from day-to-day operation to budget decisions. For example, employees are consulted during budget preparations where they can raise concerns and provide suggestions regarding capital and operating items. Anaconda also has an employee liaison committee that meets regularly to share concerns both from the operational and corporate side.

Launched in 2013, Anaconda's Consistency-Accountability-Low Variability-Measurable Success (CALM) campaign lays out specific goals and targets for departments to meet. In order for the entire operation to be run smoothly each department has specific responsibilities that have to be met *consistently*. They are held *accountable* for their performance, leading to *low variability* in the mine's production. When each department successfully completes all the parameters, the mine experiences *measurable* Success (ounces of gold sold). Employees are rewarded for this success with monetary bonuses.

Anaconda has also invested time into training their employees, working closely with the College of the North Atlantic at Baie Verte and developing career plans with them. In preparation for the CALM campaign Anaconda employees completed a ten week Supervisory Program to improve the supervisory, planning, and leadership capacity at Pine Cove. Working with the College of the North Atlantic (CNA), Anaconda is able to acquire and train employees with in demand skills (such as engineering technology) and provide employment for the region. This has contributed to Pine Cove Mine maintaining a strong human resource base located on the peninsula.

Technological innovations undertaken at Pine Cove include the use of a sulfur analysis to test for gold. Replacing gold testing with the sulfur analysis has allowed for faster sampling of the ore at less than a tenth of the cost. Anaconda has also started construction of "Material Handling Equipment" prototype to help reduce the cost of feeding ore during night shifts, when the crusher is not operating. This equipment has the potential to save them nearly \$250,000 a year of equipment if field testing is positive.

Anaconda and CNA are also working together to investigate grade control at the mine and to increase mill efficiency and gold recovery, for example, with funding from The Research & Development Corporation of Newfoundland and Labrador



Figure 2 Pine Cove Open Pit

through its R&D Vouchers program. Together with its partners Anaconda is researching ways to better define ore grades and to present ore-grade data in a computerized graphical model that will assist with mine planning. They are also working to develop an automated control system to be used during the flotation portion of the gold recovery process.

Unfortunately highly skilled professionals with specific technical skills (advanced scientific and engineering personnel) are unavailable on the peninsula and attracting these skilled personnel to the mine is difficult. Anaconda is currently looking for support from the Atlantic Innovation Fund through the Atlantic Canada Opportunities Agency (ACOA) to develop communication technologies where highly skilled professionals in their Toronto offices will be able to perform engineering and consultation tasks for Pine Cove and Pine Cove will be able to communicate day-to-day activities, suggestions, and data to Toronto. The development of a remote engineering support system would allow a virtual platform for performing engineering tasks from anywhere in the world.

Anaconda's Pine Cove personnel have many other innovative ideas in development that they are looking to pursue in 2014-2015. They are beginning to tap into resources available from organizations such as the Research & Development Corporation and College of the North Atlantic. However, the paper work and application process involved is often time-consuming and lengthy. The problem, they suggest, is not a lack of ideas, but rather taking it through the steps involved to follow through with these ideas, such as the official application processes of innovation support organizations.

Despite these challenges, Anaconda's Pine Cove Mine has a strong culture of innovation that has contributed to impressive financial gains and a consistent workforce in the Baie Verte Peninsula. General Manager Allan Cramm and his employees have set the mine on a trajectory for future success in the rural NL mining sector. Cramm believes that there are many people with great innovative ideas on the Baie Verte Peninsula with even more room for growth.

References

Anaconda Mining Inc. (2013). Gallery. Retrieved Dec. 29, 13, <http://www.anacondamining.com/gallery/>>

Anaconda Mining Inc. (2014). Profitable Gold Production in Newfoundland. Corporate Presentation. <http://www.anacondamining.com/_anacondamining.com/files/PresentationAndFactSheet/2014-02-13_-_Anaconda_Mining_Corporate_Presentation.pdf

Norman, Rudy (2008, November 28). Anaconda completes supervisory program. *The nor'wester*, <http://www.thenorwester.ca/News/Local/2013-11-28/article-3515483/Anaconda-completes-supervisory-program/1>

Research & Development Corporation (2013, June 7) Academic and Business-led R&D mining projects receive \$464,308 investment, <http://www.newswire.ca/en/story/1179903/academic-and-business-led-r-d-mining-projects-receive-464-308-investment>

*Information also derived from interviews conducted with individuals at Pine Cove mine in October 2013.

Prepared by: Nafis Karim with Dr. Heather Hall and Dr. Kelly Vodden, March 2014

**Canadian Regional
Development**
A Critical Review of Theory,
Practice, and Potentials



**Développement régional
canadien**
Un examen critique des théories,
des pratiques et des potentiels

This vignette was created as part of a multi-year research initiative focused on regional development in Canada. For more information about the project visit:

<http://cdnregdev.ruralresilience.ca>.