



## Case Study March 2004

# Awards for Excellence in Workplace Literacy, Large Business Winner, 2003 Mining for Performance Excellence at BHP Billiton Diamonds Inc.

The Education and Learning case studies examine outstanding education and lifelong learning programs and initiatives. This case study addresses workplace literacy.

### OVERVIEW

**B**HP Billiton Diamonds Inc., operator of Canada's first diamond mine, is committed to building a sustainable Aboriginal and northern workforce. The company is dedicated to giving hiring preference to Aboriginals and signed a socio-economic agreement in 1996 with the Government of the Northwest Territories (NWT) to that effect. In this agreement, the company committed itself to providing local and community benefits by hiring significant numbers of northerners (defined as permanent residents of the NWT) and northern Aboriginal peoples.

BHP Billiton Diamonds Inc. employs 750 people, with most employees working at its remote Ekati Diamond mine site. Located approximately 300 kilometres north-east of Yellowknife, this new mine operates 24 hours a day, 365 days a year. The main work rotation is two weeks in, two weeks out, with 12-hour shifts, seven days a

Effective practices case study  
in providing training and  
supporting workplace literacy

**Name of Program**  
Workplace Learning Program

**Date Established**  
1999

**Skills Developed**

- Literacy
- Numeracy
- Communication

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week. The company gives hiring preference to Aboriginal northerners and other NWT residents who have the required skills. It sets a hiring target of 62 per cent for northern residents and, within that target, 31 per cent for northern Aboriginals.

The northern and Aboriginal labour force from which the mine draws its workers presented several skills-related challenges: a population with a strong oral, rather than written, culture; workers with little or negative experience with schooling; and, for many of the workers, Ekati was their first formal workplace. As a result, company management was aware that the literacy skills of the workforce could be low. Newly hired workers' skills and education ranged from the level of beginning readers and writers to high school graduation equivalency and apprenticeships. To address the need among some for literacy skills upgrading, the company initiated a Workplace Learning Program (WLP) once a full-time workforce was in place at the new mine.

## OBJECTIVES

BHP Billiton Diamonds established the WLP to satisfy corporate production and safety needs, as well as the learning goals of individual workers. The WLP aims to:

- maintain and improve safety in the planning and execution of all work activities; and
- offer upgrading to learners of all levels (through literacy skills upgrading, pre-trades training and apprenticeship preparation, instruction and support for workers wishing to complete high school) and access to correspondence courses.

## TARGET GROUPS

The WLP is a resource for all workers who wish to upgrade their skills, including BHP Billiton employees and contractors. Workers who benefit from the program range from non-readers and non-writers to those wanting to complete high school, enter a trade or successfully complete their trades training.

## ACTIVITIES

The WLP develops skills through many learning delivery methods and activities. After an assessment of an individual's workplace literacy skills, a customized curriculum targeted at developing specific skills is designed for that worker. Typically in module format, the curriculum includes learning objectives, measure of mastery and completion, and use of authentic work documents and resource materials.

WLP adult educators are responsible for designing a relevant and useful curriculum. To that end, they shadow workers in their jobs, on their equipment, and in the field to see how and where literacy and essential skills are used on the job (for example, document use and logbook entries). Their diligence and "hands-on" approach to curriculum design help the company and the workers get what they need out of their investments in learning.

At the mine, the WLP offers one-on-one tutoring, in addition to small classes. And workers can always take advantage of pre-trades math and science classes, General Educational Development (GED) preparation classes and computer reading classes. Workers attend classes and other learning activities within the WLP for two hours every two to three days. They attend the program on a combination of work-release time and personal time.

## RESOURCES

After assessing the essential skills needs of workers, BHP hired two adult educators to design and develop the WLP. Later on, as demand for the program grew, a third pre-trades apprenticeship adult educator was hired. The company provided literacy and trades materials and resources; computers and some laptops for computer-based training; and WLP training classrooms. BHP also paid workers to attend training, through work-release time. The program is successful not only because BHP commits so many resources to it, but also because it invests in ongoing curriculum development: supervisors are consulted often for curriculum ideas and feedback on the company's skills upgrading efforts.

## INNOVATIONS

This program is unique in that it brings together workplace learning, Aboriginal content and functional literacy (which includes personal and community interests) while customizing program content for each individual learner. While the corporate need for a skilled workforce is an essential consideration, the learning program focuses on the individual—both at the assessment stage and in the delivery of the program. To promote the continuity of individual learning programs, the adult educators maintain close working relationships with community adult educators across the NWT to support workers' learning on their time off from the mine. The adult educators at the mine also facilitate training events for community adult educators and college staff to provide workplace training.

The program is designed in collaboration with supervisors and with input from workers. The adult educators have made a point of understanding workers' positions as well as possible, through job shadowing, learning how diamonds are mined, and by understanding everyone's role in the process. The resident adult educators work flexible shifts to accommodate day and night shift workers. Workers may join ongoing literacy classes and pre-trades upgrading offered at the mine, and they receive paid work-release time to do so. To help create and maintain an overall workforce with the best skills possible, the WLP is open to BHP Billiton employees and contractors alike.

## CHALLENGES

Creating a learning culture within a workplace at a remote northern location is challenging. Besides the lack of physical access to formal educational institutions due to geographic distance, several concerns are apparent in developing and maintaining the learning program:

### PROGRAM DEVELOPMENT CHALLENGES

- getting buy-in from all levels of management and from workers who may be coping with the stigma of low literacy;
- learning how literacy and essential skills are best developed at the mine site;

- scheduling time for learning when production and work at the mine site is continuous, 24 hours per day, seven days per week, 365 days per year; and
- understanding that, in terms of priorities, workplace learning must come second to safety and production targets (workers are not released from their work for training if their absence will jeopardize meeting minimum crew numbers for safety or production reasons).

### PROGRAM MAINTENANCE CHALLENGES

- dealing with an interrupted work and learning schedule (that is, workers are present at the mine site for two weeks, then are off-site for two weeks);
- working in isolation—program educators at the remote site cannot gain easy access to other educators for consultation, feedback and discussion;
- maintaining confidentiality of learners' progress when workers, supervisors and adult educators are always in close quarters at the remote site: living, travelling, eating and working together;
- progressing fast enough—workers at low literacy levels often want to get quick results from their efforts; and
- helping individuals to gradually take responsibility for their own learning paths and choices.

## SOLUTIONS/KEYS TO SUCCESS

Despite the considerable challenges of creating and maintaining a learning program at a remote northern mine site, the WLP at BHP Billiton Diamonds Inc. continues to be a great success. In addition to management support and worker enthusiasm, several elements are key to the program's sustainability:

- consistency, confidentiality and respect for workers, managers and supervisors is maintained;
- confidence is instilled in workers, motivating them to gradually take risks;
- educators are approachable and available to everyone; and
- educators consult and collaborate with adult educators at other remote mine sites and with local community adult educators to share resources and ideas, provide support and learning continuity, and to bridge isolation.

## OUTCOMES

Due to the enthusiastic support and hard work of all levels of employees, the learning efforts at the BHP Billiton Diamonds Inc. mine site yielded positive results. The outcomes range from some workers, formerly non-readers and non-writers, learning to read and write, to other workers passing pre-trades examinations. Workers at every level of skills upgrading are making strides towards improving their own performance and productivity, thus benefiting the organization as well as themselves. Other specific outcomes of the learning program include:

- workers improving literacy and numeracy skills;
- workers preparing to complete their high school equivalency examinations;
- Aboriginal workers moving from entry-level jobs into apprenticeships and receiving support from the company to ensure that they will succeed throughout their apprenticeship;
- workers improving their confidence and participating more often in safety meetings and discussions about equipment or processing;
- workers using their skills at home, with children, in money management issues, problem solving and decision making, and with band council meetings, etc.; and
- workers setting long-term goals as a result of increased morale.

## IMPACTS AND BENEFITS

The long-term impacts of this relatively new program have yet to be fully realized. However, a number of benefits are already apparent, due to upgraded skills:

- a safer and more productive workplace;
- increased participation in all workplace activities;
- workers taking on new roles as mentors and peer learning coaches;
- improved self-esteem of workers;
- increased motivation to learn, enhance skills and develop a career progression plan;

- workers pursuing educational goals that they would otherwise not be able to pursue because of their two-week-on/two-week-off work schedule;
- workers who may have had limited educational opportunities overcoming their fears of reading and writing;
- increased awareness of the importance and transferability of education, both on the job and at home;
- support towards achieving new goals in workers' lives; and
- continued hiring of northern Aboriginals from remote communities.

For many workers, having a pre-trades adult educator on site at the mine means the difference between pursuing a trade or giving it up. Many workers come from small communities that do not have a pre-trades college program or an apprenticeship program representative. With proper tutorials and general support from the pre-trades adult educator at the mine site, however, more workers are now able to succeed in the formal schooling component of their trades training programs.

## USE AS A MODEL

The WLP at BHP Billiton Diamonds Inc. is well-suited for northern or remote workplace sites, with its flexible training schedule and customized curriculum. It especially targets Aboriginal workers who may have had limited experience with written language or formal education.

### **Our thanks to the people we interviewed, and others who provided comment, including:**

Trevor Weir, Training Superintendent  
Susan Devins, Adult Educator  
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Dan Machnee, Pre-Trades Adult Educator

### About the Education and Learning Case Studies

The Education and Learning case studies examine outstanding education and learning programs and initiatives. The case studies provide in-depth analysis of the methods used to develop, assess, implement and deliver education and lifelong learning in schools, colleges, universities, workplaces and communities. They focus on goals, activities, resource requirements, achievements and outcomes, benefits, innovations, and keys to success and challenges.

This case study addresses the theme of workplace literacy and highlights an award winner from the Awards for Excellence in Workplace Literacy, funded by the National Literacy Secretariat, Human Resources Development Canada.

Awards for Excellence in Workplace Literacy, Large Business Winner, 2003: Mining for Performance Excellence at BHP Billiton Diamonds Inc.

by *Alison Campbell*

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