Report
Assessment Work Credit

## Identification of Mining Land

The claim numbers are: $1214624,1214625,1214626$
Claim numbers 1214625 and 1214626 are located in the Township of Baldwin and claim number 1214624 is located in the Township of Nairn. These claims are accessible by Jacklin Road which runs between Highway 17 and Highway 6. The attached map also provides Lot and Concession numbers corresponding to these claims.

The work conducted, as described in this report, was done on claim number 1214624.

## Purpose of Physical Work Performed

The purpose of the physical work performed was to assess the stone's ability to be processed into monuments, markers and decorative stone in general. Specifically, it needed to be determined if the stone would cut readily using Diamond Bit Blades, the size of blocks that could be extracted and cut, the type of finish (shine) the stone would take from polishing and the consistency of colour.

The assessment of the stone using this criteria was deemed necessary as per the information gathered from monument dealers, stone processors and other operating quarries already supplying stone into this market. At the time of the work being performed black granite was not readily available in Canada and importing was the primary means of obtaining it. Several dealers were seeking a Canadian supplier in order to reduce delivery times, which were excessive in the import market.

The work performed, as described in this report, was conducted in the summer and fall of 2001. The dates of the work are outlined in the section detailing the actual work.

## Detailed Description of Work Performed

1. An extension of the interior road had to be done in order for equipment to be able to access the area selected for extraction of stone to be processed. This area was at the highest peak located 100 metres from the boundary claim line. It was selected due to previous observation and small scale sampling, which showed promise that the stone had a deep black colour that was consistent and the visible fracture lines appeared to be fairly straight and deep.
2. Sudbury Cutting and Coring were selected as contractors. They had mobile cutting blades that would allow their laborers to cut into the stone facing along the fracture lines. There were two laborers operating the mobile saw under the supervision and guidance of James Owen. After two days of trying this method, it was determined that the selected site for extraction had deeper fractures than initially thought. Therefore, it was necessary to finish the extraction of the blocks with manual labour. The depth of the fracture before meeting a horizontal fracture was almost 36 ". It was also observed that the density of the stone caused intense vibration on the mobile style blade. Ongoing extraction of this method would be too timely and would ultimately ruin blades in a quick time period.
3. One block was extracted from this area by Sudbury Cutting and Coring and another was selected from approximately 100 feet away (moving towards the boundary line). The second raw block was from a previous exploratory pit and was selected due to its fairly squared shape and lack of apparent fractures.
4. These raw blocks were then moved down the facing of the mountain to flat land to be further processed. One block was successfully split using a power driven jack hammer. It was split down to a more manageable size for further cutting and polishing. It ultimately became a marker piece that was consistent with the size of markers sold by monument dealers.
5. The second, larger block was split with the power driven jack hammer as well. There was some shattering near the edges that occurred thus causing the block to be inconsistent in width from one end to the other. This block was shipped to a company in southern Ontario for further processing and later deemed to be waste material due to the fractures that only became evident during the cutting stage.
6. Based upon the associated costs of Sudbury Cutting and Coring, it was determined that manual wedging was a preferred method for the purpose of obtaining sample blocks. One laborer was hired in and utilized stone wedges and sledge hammers to wedge the blocks out along the fracture lines. By properly 'tuning' the wedges positive results were experienced. Two large size blocks wedged away enough to later have them pulled out using a front end loader and nylon straps. It took a total of 48 hours by the manual laborer and additional hours by James Owen and Teresa Owen to wedge these two blocks. It was determined that manual wedging was the preferred method of the two as it was more cost effective and there was less waste created because wedging allowed for the block to split along the natural fracture, which was very straight.
7. These two blocks were removed from the extraction area and taken down the face of the mountain by a front end loader. They were brought down the side of the mountain for cutting to square blocks that could later be taken for polishing at processing facilities.
8. A local contractor was hired, G.J. Buteau, to do the on-site cutting.
9. They utilized a seven foot diamond bit blade for cutting and had two operators and a generator with a water flow hose mechanism.
10. The first block that was cut revealed an interior fracture that was not seen during the extraction process. This fracture was located in the middle of the stone and did not allow for any part of the block to be salvaged for monument or marker size specifications. It was discovered through this process that the stone was very easy to cut and did not have ridging from the blade. This was a positive result and encouraging.
11. The second block was without fracture. It was cut to monument specification, which had to be $8^{\prime \prime}$ in depth, at least $24^{\prime \prime}$ high and at least $36^{\prime \prime}$ in length. Again the cutting of the stone proved that it was of a good density and allowed for ease of cutting. It also did not produce any ridging. The colour after the cutting was complete was consistent and the fine grain of the stone was also evident throughout all faces of the block.
12. Upon achieving the results of the second block, it was determined that no additional cutting was necessary and the contract with G.J. Buteau was ended. Based on their previous experience cutting stone, they agreed that the stone was of good quality and were pleased that there was no damage done to their blade. They were encouraged by the end result and offered their services for any future cutting.
13. The cut raw block was loaded on a truck several days later when weather was permitting. It was then delivered to Khouri Granite in Sudbury for further shaping and polishing.
14. Khouri Granite reduced the length of the block utilizing their cutting equipment, which is stationary and of a much higher grade than the equipment utilized by Buteau. After resizing it, the stone was then polished using a granite polishing process. The results were very favourable and Khouri Granite described the finished product as being of the same caliber and quality as black granite being imported from countries such as India and China.
15. The final results proved so satisfactory that pictures were taken and distributed to several monument dealers in southwestern Ontario and all were very pleased with the results achieved by an Ontario black granite.
16. Simultaneously, Ministry of Natural Resources requested the boundary claim lines be re-cut due to substantial growth over the previous years. James E. Kirkland was hired to do this process and cut all boundary claim lines and flagged them according to Ministry instructions. This work was conducted over the course of the fall of 2001.

It needs to be noted that the time line for this work was greater than originally forecasted due to excessive rain conditions during the fall of 2001. At times the mud from the overburden on the facing of the mountain made it impossible to work especially when utilizing the front end loader.

There are accompanying pictures showing various stages of this work. The attached maps will indicate the location of the extraction area and where the road was extended to and the small area where overburden was removed for ease of access by the equipment.

## $2.30 \cap \% 2$

Block being cut.



Extraction Area


Block being cut


## Block being cut




