



Cluff Resources Pacific NL

ABN 72 002 261 565

QUARTERLY REPORT FOR PERIOD ENDING 30 DECEMBER, 2009

HIGHLIGHTS:

- THIRTY-ONE DIAMONDS RECOVERED IN PIT MCR 45
- NATURE OF 'DIAMONDIFEROUS DRIFT' DISCOVERED
- 6 HOLES DRILLED, 2 BULK SAMPLES TAKEN FROM MCR 45

1. DIAMONDS

1.1 BINGARA DIAMOND PROJECT (Cluff 100%, Diamond Ventures 10% NPR, reducing to 5%)

Thirty one rough gem quality diamonds were recovered from two samples totalling 69 tonnes in the MCR 45 Pit at Monte Christo. The samples were taken to determine the grade and distribution of the diamonds in the shallowly dipping brown bed into which old tunnels have been driven. The results are below:

Layer	Thickness	Tonnage	Diamonds	Weight (carats)	Grade (cts / 100t)
1		49	20	3.74	7.6
2		20	11	3.14	15.7



20 diamonds = 3.741 ct



Diamonds recovered from Pit MCR 45

In total, seventy four diamonds and carbonados weighing 12.8 carats have recently been recovered by the Company from this old mine.

Bulk sampling is continuing to determine the lateral grade variation, and whether this diamondiferous bed is within the enclosing pelletal claystone, or is younger infill into a geyser vent. In the latter case, the diamonds may have been derived from breakdown of diamond bearing zones within the enclosing pelletal claystone by the hot spring activity. The pit is being extended in a southwest direction, and a trench to determine the downward extent of the old working stopes, their exact angle of dip,

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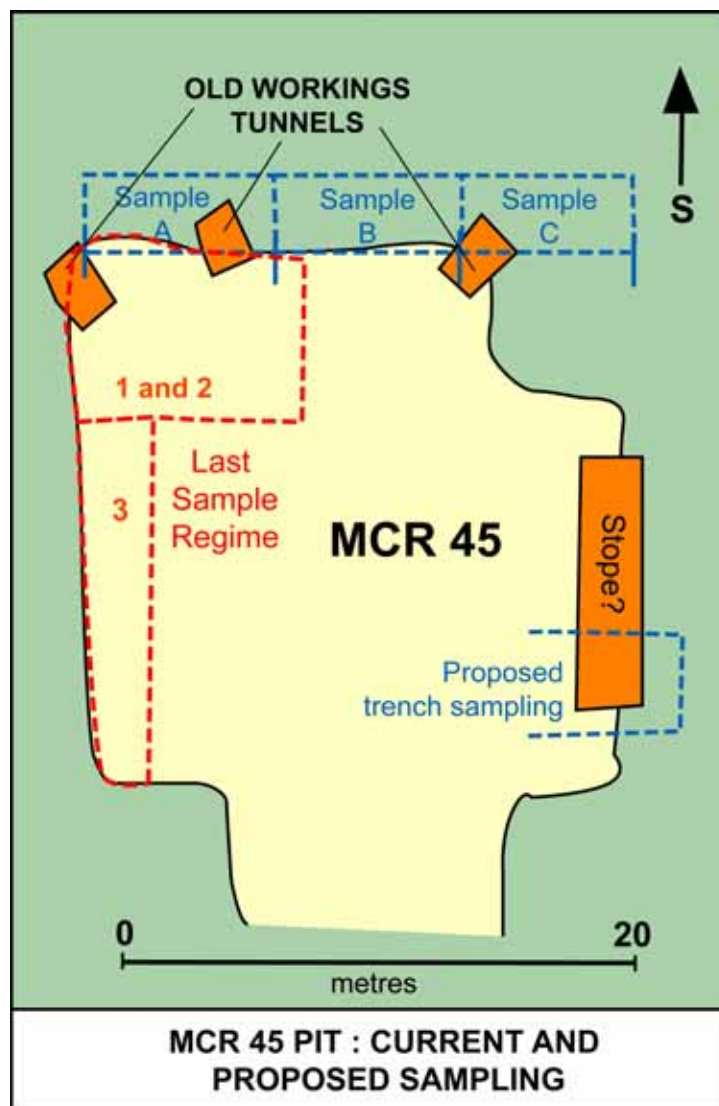
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and the grade in any preserved ore is planned. Present and future pits are shown on the plan below, and the company will then, if warranted, undertake a further lateral pit approximately 10 metres to the south west to further examine the bed carrying the recovered diamonds. All material extracted from the bed carrying the recovered diamonds will be bulk sampled at the company's plant at Copeton.



Old diamond mine exposed on Monte Christo Lease.



MCR 45 PIT : CURRENT AND PROPOSED SAMPLING

Location of Future and Current Pits

Pelletal Claystone

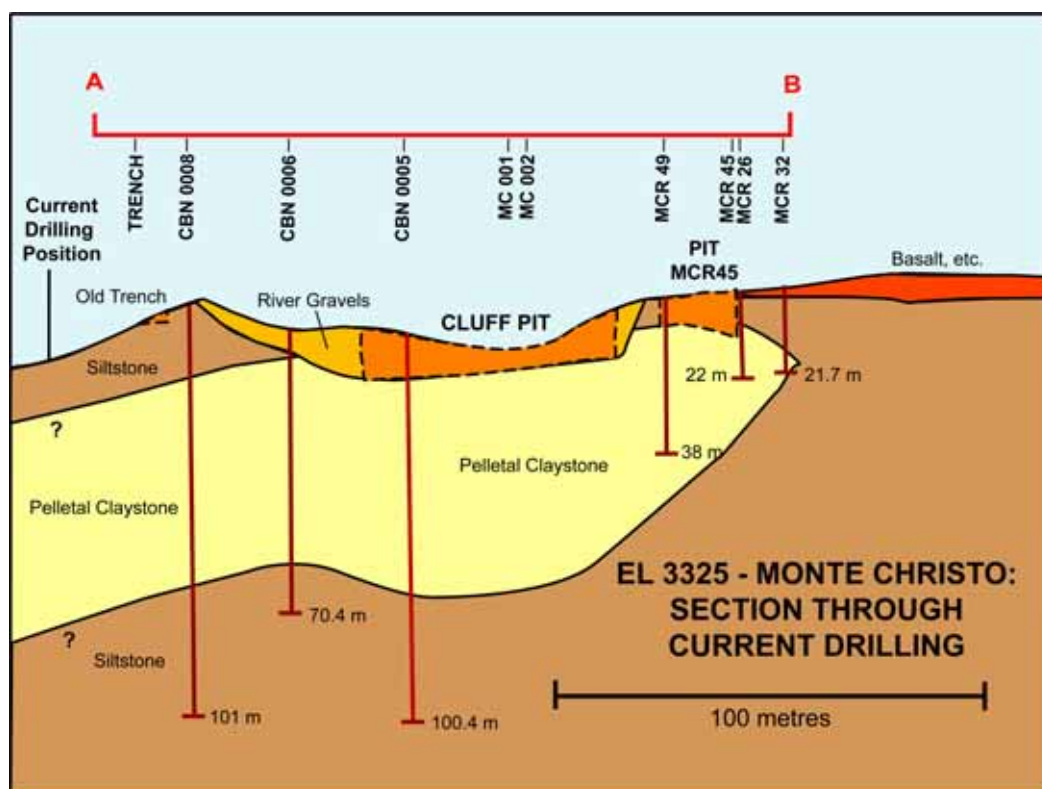
Funding was raised six months ago on the theory that the diamonds at Bingara occur in a rock called “diamondiferous drift”. The precise nature of this rock type had been lost in time, and if the Company could identify it again, it would have found the source of the Bingara diamonds. Modern workers had considered the areas alluvial gravels to be “diamondiferous drift”, but Cluff had proved that the grades in the gravel were far too low for this idea in the 1990s.

Drilling of four former diamond mines to locate and identify this “diamondiferous drift” was undertaken, and an unusual claystone containing small pellets of clay, and broken zones within it, has been identified as common to each mine. In some places these occur near the diamond bearing zone.

The Company is now interpreting this claystone as the diamond bearing rock. All other rocks penetrated are easily recognised, and are by their nature barren of diamonds. These pelletal claystones are the only rocks which are unusual, and their potential to carry diamonds and to be the diamondiferous drift referred to in the historical publications cannot be dismissed without further work. This is interpreted as the rock previously called “drift”, and which was stated in Mines Department reports to contain beds of “diamondiferous drift”.

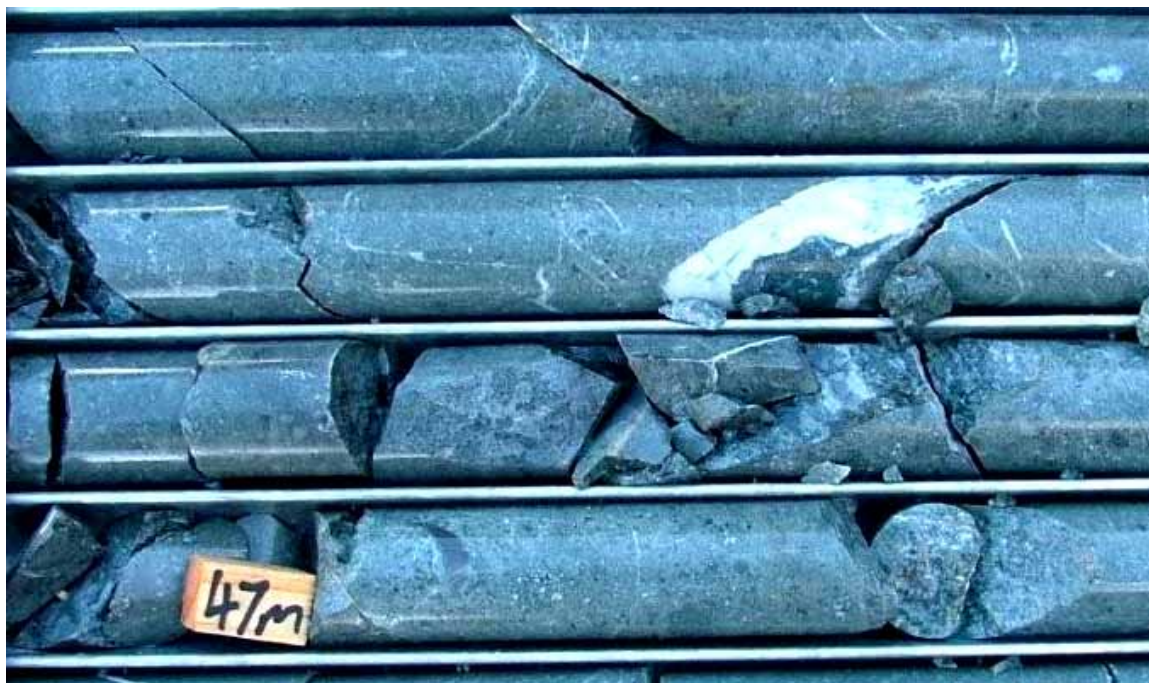
When Hole CBN 0005 was drilled at Monte Christo adjacent to the most prominent former shaft, an exciting picture emerged, with this claystone proving to contain very coarse clay pellets in zones up to three metres thick, and to be over 50 metres in total thickness. It is suspected that the coarse beds within the claystone are the “diamondiferous drift” mined at the Monte Christo Mine. Three more holes have now confirmed the continuity and thickness of this pelletal claystone carrying similar coarse zones

Fine pelletal claystone previously sampled had yielded no diamonds, but was exposed in the base of Cluff’s former open cut mine, which yielded about 10,000 diamonds (about 1,600 carats) during the 1990s, and may have been the low grade source for these stones. Our mine, in relation to the pelletal claystone, is shown on the Section below.



Section Showing Current Drilling, and Location of Cluff’s Pit

The highly diamondiferous rocks in the Monte Christo Mine were described in the Daily Telegraph in the early 1890s as “The wash, when seen underground, is an uninteresting grayish colour, studded with small stones. The most common stone in the wash is a dark-green one, something of the shape of a kidney bean, and about the same size. The stone looks quite black underground, and runs through the wash like plumbs in a pudding. Where those stones are, the diamonds are, and where they are thickest, the diamonds are thickest also.” The sides of the galleries and faces of the drives are throughout diamondiferous drift, which is all water worn material”. This description fits the rock drilled (see photo below). A tunnel illustrated in this press article is not timbered, suggesting it is in a hard rock, perhaps similar to this claystone.

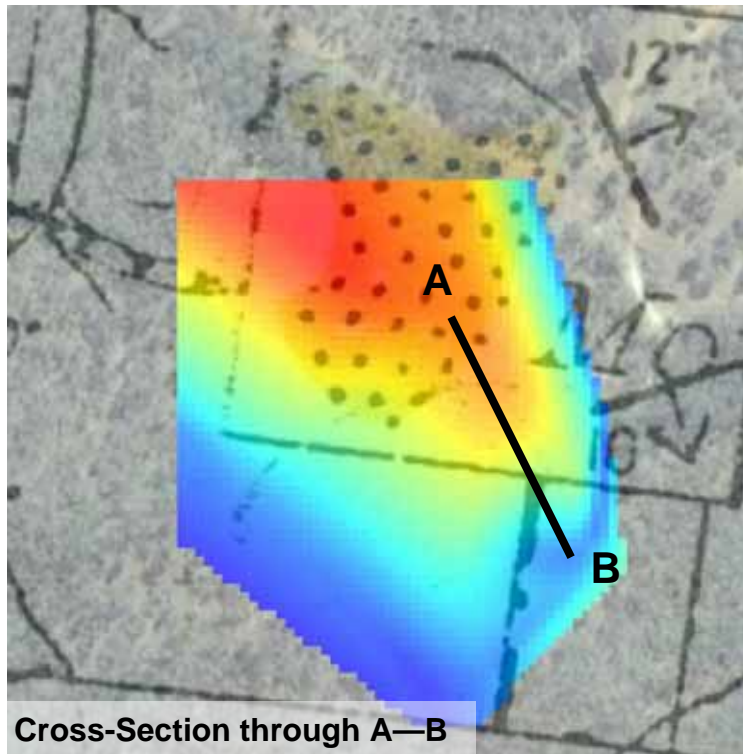


Pelletal Claystone in Hole CBN 0008

Microscopic studies of this thickest and coarsest part of this rock unit are in progress by a consultant petrologist, and to date all samples examined are from the thinner and finer claystone from the edge of the deposit, and also from very similar rocks from other locations. These have been interpreted as “clastic sedimentary rocks”.

The reports state that “They are consistent with the rocks representing the basement sequence in the Bingara region”. “The pervasive alteration and vein assemblages observed in the samples [are] typical of very low grade metamorphism e.g. due to burial”, and “There is no evidence of igneous intrusion or brecciation caused by igneous or hydrothermal processes in any of the samples examined”. These conclusions are consistent with the field being regarded as “alluvial” by the NSW Mines Department for over 135 years.

This body of pelletal claystone is concealed under most areas by a cover of basement shales. It is almost flat lying, and appears to be intrusive into the more steeply dipping basement shales. The extent of this claystone and its close relationship with the “drift” from which the Monte Christo Mine was extracting high grades of diamonds is shown below.



Cross-Section through A—B

Pelletal Claystone, (thickest in red), compared with 'drift' (black dots) worked in the Monte Christo Mine

Similar textured weathered rocks, described as “disrupted bedrock” and sampled by the Company in 2005 at Craddock’s Mine (CD 2) yielded forty one gem diamonds weighing 5.89 carats, while at Big Hill Mine a similar deposit described as “slope or debris flow deposit containing bedrock fragments” (B BH 1) recently yielded ten gem quality diamonds at a grade of 20.2 ct/100tonnes.

The finding, by most recent drilling, of large tonnages of such rocks is exciting. The Company feels their significance as a diamond source rock must be further evaluated. If these are the rocks previously mined at high grades, they have potential to form a world class diamond resource.

The Company has identified a further three hole locations to the immediate north west of hole CBN0008 and has prepared the drill rig pads to allow the holes to be completed in the following two months. Each proposed hole has a target depth of 100 metres and will be seeking to examine the extent and depth of the pelletal claystone.

3D modelling will be undertaken upon completion of the logging of these cores to further determine the extent and location of the pelletal claystone. The company intends to focus its further attention for further drill holes and/or bulk sampling if possible upon those areas where it is likely that the pelletal claystone outcrops or is close to the surface.

Core Logging

A trip to the Londonderry Core Storage Facility enabled a reinterpretation of historic drilling, and assisted in relating it to our present drilling. Rock symbols suitable for entry into the computer database were revised, and are now being integrated into the database.

1.1.2 Upper Four Mile Mine

CBN0003 was drilled to investigate a possible former shaft drilled within basement rocks, but yielded only basement rocks to 50 metres depth.

CBN0004 was drilled to extend the area beyond which the pelletal claystone is known in this area, and to investigate the material mined in a large old shaft. Coaly sediments were intersected from 13 to 20 metres, as in adjacent holes, with pelletal claystone immediately below this. Other holes in the area have intersected old diamond workings beneath these coaly sediments, suggesting this claystone may have been the material mined.



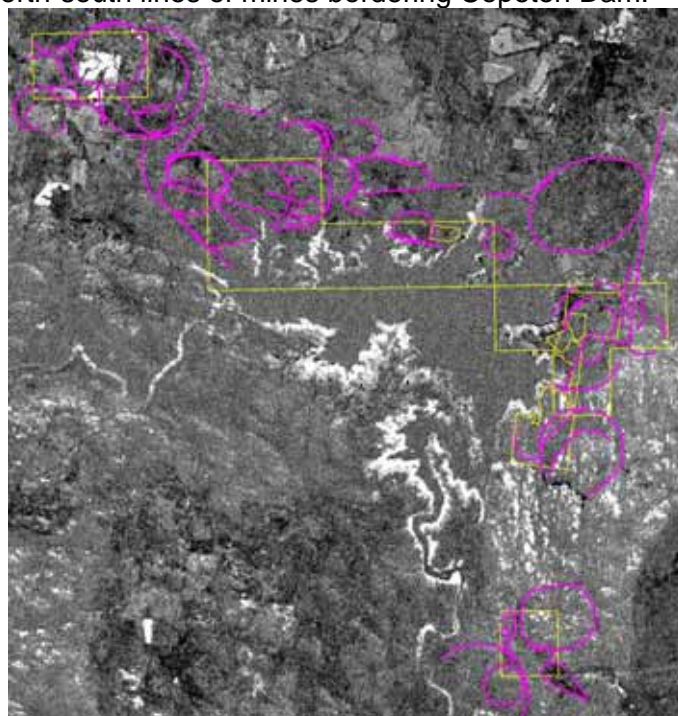
Locations of drill holes, Upper Four Mile

1.1.3 Mapinfo Entry

150 historic maps were digitised and entered into the Mapinfo mapping program.

1.2 COPETON PROJECT (Cluff 100%)

Landsat images showing the presence of bedrock alteration to clay within circular structures at Copeton were prepared by GISTech Pty Ltd. Most former diamond mines at Bingara fall within similar circular zones. These are shown below together with the squares of the exploration licence, and similarly show a relationship with the east-west and north-south lines of mines bordering Copeton Dam.



2. INTERNATIONAL PROJECTS

Further to general statements about India made in our last Annual Report, Cluff is specifically pursuing mining opportunities in the state of Karnataka. The Hutti Gold Mines of India has recently released information in the media confirming our activities. Links to these articles and some of the other media articles are available on our website, www.cluff.com.au/html/home.html. Alternatively, the articles may be found by conducting a Google search using the keywords 'Cluff', 'India', 'Gold', and 'Hutti'.

3. TIN PROJECTS (Cluff 100%)

Excepting DPI reporting, no activities were undertaken on Cluff's tin projects during the quarter.

4. EGERTON GOLD PROJECT (Cluff earning up to 75% from Tech-Sol Pty Ltd)

There were no activities undertaken at the Egerton Gold Project during the quarter.

5. RUBY MINE (Cluff 100%)

Water turbidity monitoring continued and lease requirements were met.

6. FINANCE

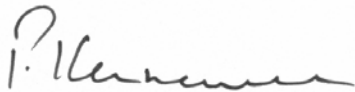
During the quarter, 284,000 31 July 2010 \$0.006 listed options were exercised, 84,000 31 July 2011 \$0.01 listed options were exercised, and 13,000,000 directors' unlisted options were exercised, giving a total of \$60,784 raised from the exercising of options.

The information in this report that relates to mineral exploration or mineral resources is based on information compiled by Peter John Kennewell, who is a corporate member of the Australasian Institute of Mining and Metallurgy included in a list promulgated by the ASX from time to time. Peter John Kennewell is a full time employee of Cluff Resources Pacific NL and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a competent person as defined in the 2004 Edition of the "Australasian Code for Reporting of Exploration Results, Identified Mineral Resources, and Ore Reserves". Peter John Kennewell consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

For further information contact:

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Yours faithfully,



Peter Kennewell,
Managing Director