Seafield successfully core drills offshore West Coast gold prospect

13 May 2010 - The first round of pioneering offshore test core drilling for placer gold, and other heavy minerals off the West Coast of the South Island has just been completed by Seafield Resources.

The MarSol Pride with Seafield Resources core sampling rig raised on stern of vessel moves to new drilling site off West Coast

Sources: Seafield Resources and Lindsay Clark

Neil Fraser, the manager of the Seafield project for the marine mining technical services company AuruMar (sea gold) said from Nelson that the drilling of up to 10 m long cores of sea bottom deposits had been successful.

Mr Fraser, a Cape Town-based geologist formerly with offshore diamond mining company De Beers Marine in South Africa, said the West Coast cores were currently being prepared to be sent off to assay laboratories for analysis.

Drilling undisturbed geological drill cores from a small vessel which is moving up and down in waves close to shore is a tougher challenge than onshore drillers face.

Mr Fraser said that De Beers Marine mainly used airlift tools to suck seafloor material up from the seafloor but the New Zealand project wanted to collect undisturbed seafloor profiles of up to 10 m deep and therefore needed core drilling.

To do this, Seafield decided to build its own drilling equipment in New Zealand specifically for local conditions. The custom-built sampling tool is designed to be winched over the stern of the operating vessel and to stand upright on the sea floor while drilling.

The 13 m-tall rig contains a sonic vibro-corer, which sits on top of the 10 m core drill pipe.

The sonic vibro-corer uses high-frequency vibrations to vibrate the core pipe as it penetrates down into the sand or gravel to give a relatively undisturbed core.

The sonic vibro-corer unit is driven from a hydraulic powerpack on board the ship through flexible hydraulic hoses.

Once the drilling tool is recovered on board, the core is extruded out of the core barrel into catcher trays, before packaging into thick plastic bags for logging ashore and later lab analysis and assaying.

The drilling tool was built by Wellington-based company, New Zealand Diving and Salvage, with design input from De Beers Marine.

Nelson marine support company Unimar led construction of the LARS and provided the vessel – the Nelson-based 60 m multi-purpose vessel MarSol Pride - along with a New Zealand crew, for the West Coast drilling.

The construction and commissioning of the equipment has been supported by numerous other contractors from both Wellington and Nelson.

Mr Fraser said the MarSol Pride was ideal for the drilling task as it had four-point anchor mooring to keep the ship firmly fixed in one position whilst drilling. It also had low draft for shallow waters and plentiful accommodation.

The prospect drilling was carried out between Greymouth and Ross, and north and south of Franz Joseph and Fox glaciers.

AngloGold Ashanti, the world’s third largest gold mining company and leading diamond miner and seller De Beers, formed a marine exploration joint venture to fund Seafield’s the West Coast exploration for gold and heavy minerals.

AngloGold Ashanti in its first quarter report said the JV drilled a total of 249 m during the quarter with first assay results expected early in the third quarter.

The New Zealand-based Seafield Resources is owned by the E Oppenheimer & Son International Group which has interests in De Beers South Africa. The original concept for the project was developed by international placer gold expert Dr John Youngson of Dunedin who remains a geological consultant to Seafield.

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