Darnley Bay Discovers Two New Magneto-Telluric Anomalies

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TORONTO, Dec. 4, 2013 - Darnley Bay Resources Limited ("Darnley Bay" or the "Company") (TSX VENTURE:DBL) is pleased to announce the discovery of two new large magneto-telluric (MT) anomalies at its 100% owned Darnley Bay Property, located near Paulatuk, Northwest Territories. Like the first MT anomaly - reported (see October 13, 2013 press release), the new anomalies are spatially coincident with previously-discovered gravity anomalies, are considered good to moderate conductive zones and appear to be hosted by prospective Proterozoic rocks. They are located respectively two and twelve kilometres east of the first MT anomaly.

Darnley Bay received the latest 3D inversion results from EMpulse Geophysics Ltd, the geophysical contractor. The new inversions not only used the magnetic field tipper data, but also included static shift analysis to minimise near surface geologic noise and to better image the apparent resistivity distribution at depth (see EMpulse web site for more details http://www.empulse.ca/).

The MT survey was performed in August 2013 and consisted of a total of 73 line-kilometres, with stations every 500 metres, over three different lines (North, South and East). See http://www.darnleybay.com/news/Figure_1 and http://www.darnleybay.com/news/Figure_2, 1:250,000-scale plan views, showing the location of the surveyed lines and of the MT anomalies over gravity and magnetic models backgrounds. http://www.darnleybay.com/news/Figure_3 is a stack of three vertical profiles along the North Line; the two upper profiles show the MT anomalies over a gravity and a magnetic models background; the lower profile show the MT anomalies over a 2D geological model that honours the gravity, the magnetic and the seismic data of this sector. The new 3D-inversion model revealed:

1. On the North Line, 12 kilometers east of the first anomaly, a 1.5x3.5 kilometres anomaly with a maximum thickness of 800 metres, its center being at elevation -2,000 metres (below sea level). It is considered to be a moderate to good conductive zone with apparent resistivity values ranging from 32 to 8.9 Ohm-m

2. On the North Line, two kilometres east of the first anomaly, a 1.0 x 2.0 kilometres anomaly with maximum thickness of 600 metres, centered at elevation -1,300 metres with apparent resistivity between 32 Ohm-m and 15.1 Ohm-m

3. On the South and East Lines, three weaker anomalies (80 to 45 Ohm-m), with dimensions of 1.0x1.0-3.0 kilometres between elevations -1,000 to -2,400 metres.

The extent, depth, conductivity and the geological setting of the three MT anomalies on the North line fit the metallogenic exploration models Darnley Bay is exploring for: either a copper-nickel magmatic model (example: Sudbury in Ontario or Noril'sk in Russia) or an Iron Oxide Copper Gold model (example: Olympic Dam in Australia).

"I am pleased by these latest results," says Jamie Levy, President of Darnley Bay. "We now see two new conductive magneto-telluric (MT) anomalies, along with our previously announced anomaly, on the North line. In addition, three less conductive MT anomalies have been interpreted on the East and South lines. We believe the north line has identified priority drill targets with favourable geological and geophysical settings."

The Darnley Bay Property covers a total of 456,000 hectares with a series of mineral concessions and prospecting permits obtained from the Inuvialuit Regional Corporation and the Canadian Government. The Property encompasses what is considered one of the largest and strongest coincident regional gravity and magnetic anomalies in the world with dimensions of 80 x 100 kilometers. The regional gravity anomaly has absolute amplitude of 132 mGal (milli-gals), while the magnetism reaches 1,350 nT (nano-teslas). Darnley Bay staff believes the source of this anomaly is a large and deep mafic-ultramafic intrusion, the type underlying other base metal mining camps, with the potential for mineralization being at shallower depth than the main intrusion itself. It is thought that it was formed during the regional Franklin or the Mackenzie magmatic events, both Proterozoic in age (720 million years and 1,270 million years respectively).

Magneto-tellurics is a geophysical method of imaging the Earth's subsurface by measuring natural variations of electrical and magnetic fields at the Earth's surface. In the 1990's, MT was successfully used to locate mineral deposits as deep at 1,750 metres in the Sudbury nickel mining camp. In the last 10 years, the
technique has seen many improvements, particularly with the development of modern 3D inversion. In the oil industry, it is now routinely used, in conjunction with seismic, to better define deep drilling targets.

At the Voisey's Bay nickel mine, magneto-telluric survey data detected the nickel-copper mineralization at depth, with apparent resistivities between 10 and 25 Ohm-m (http://www.cemi.utah.edu/appls/mt/) similar to the range of values of the three MT anomalies detected on the North line last August on Darnley Bay Property. Resistivity from the Darnley Bay MT anomalous zones may decrease once the final processing of additional low frequency data is completed. Readers are cautioned that the similarity of the survey results is not necessarily indicative of mineralization on the Property. The magneto-telluric method only measures variations in resistivity in the earth and MT anomalies can also be caused by variations in resistivity due to large scale variations in lithology, structure, and/or conductivity of disseminated minerals or pore fluids as in sedimentary rocks. However, the fact that all the anomalies detected so far are closely related to gravity anomalies (http://www.darnleybay.com/news/Figure -1 http://www.darnleybay.com/news/Figure -2 ) suggests that the MT anomalies could be produced by denser material than the surrounding rocks; metal-rich lithologies and/or alteration zones being possible sources.

Darnley Bay is waiting for more results from EMpulse; particularly the processing and inversion of the extended bandwidth time series (to 1Hz) that should provide information to depth of 3 to 5 kilometres. Darnley Bay is planning to do more detailed MT surveying on each side of the North line, in order to better define the attitude and orientation of the anomalies for an eventual drilling program. Darnley Bay is also planning more MT surveying over other selected areas on the Property.

The 2013 MT survey on the Darnley Bay Property was performed by EMpulse Geophysics Ltd, from Dalmeny, Saskatchewan (http://www.empulse.ca/). The technique used for this survey is Transient Audio-Magneto-Telluric, with proprietary SFERIC II instrumentation and Adaptive Polarization Stacking algorithm. David Goldak, M.Sc. (Physics), President of EMpulse Geophysics, was in charge of the survey in the field and responsible for the 3D-inversion and the data processing. The technical information of this Press Release has been prepared, reviewed and approved by Mr. J. Gauthier, P. Eng., P. Geo., the Qualified Person as defined by National Instrument 43-101.

Forward-Looking Information

This release includes certain statements that may be deemed "forward-looking statements". All statements in this release, other than statements of historical facts, that address future production, reserve potential, exploration drilling, exploitation activities and events or developments that Darnley Bay expects are forward-looking statements. Although Darnley Bay believes the expectations expressed in such statements are based on reasonable assumptions, such statements are not guarantees of future performance and actual results or developments may differ materially from those in the statements. There are certain factors that could cause actual results to differ materially from those in forward-looking statements. These include market prices, exploitation and exploration successes, continued availability of capital and financing, and general economic, market or business conditions. Investors are cautioned that any such statements are not guarantees of future performance and actual results or developments may differ materially from those projected in the forward-looking statements. For more information on Darnley Bay, investors should review registered filings at www.sedar.com.

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