

October 19, 2010

UPDATE

Summary of Drilling and Exploration for Base Metals – Fall 2010

A program of drilling and concurrent ground geophysical surveys is underway for the late August to November 2010 period on the mineral concession and prospecting permits held by Darnley Bay Resources Limited in the Paulatuk NWT area. The focus is on locating deposits related to the mafic/ultramafic intrusion interpreted to be the source of the 132 mGal Darnley Bay gravity anomaly. Due to the cover of glacial till (sand, gravel and clay), there is minimal outcrop of bedrock in the area except in the canyons. The known bedrock consists mainly of sediments from Precambrian through to Cretaceous age. Igneous rocks that outcrop on the eastern edge of the area in the Brock Inlier are Precambrian Franklin gabbro-dolerite sills and dykes (723 million years). Samples of these sills and dykes yielded measurable amounts of nickel, copper, platinum and palladium (Geological Survey of Canada Open File 2789).

Ground Geophysics

The base metal targets have been interpreted from airborne gravity, magnetic and electromagnetic surveys. 3D modelling was particularly instrumental in selecting the gravity targets. Ground surveys using each of the three geophysical methods are employed to more precisely determine drillhole collar locations, azimuth and dip. A downhole electromagnetic system is also onsite for drilling follow-up.

Ground gravity surveys have been completed on the following targets: G-5, G-6, G-9, G-10, G-17 and G-22 (see map below). Surveys were undertaken on a 500 m grid pattern, with infill at 250 m over anomalous areas. **Each survey confirmed the targets located from the airborne gravity survey** and improved the definition of each anomaly. A survey is underway on target G-13, to be followed by G-2.

Ground electromagnetic surveys have been completed on the following targets: EM-1, EM-6 and EM-8. The results are currently being modeled by Aurora Geosciences. A survey is underway on target G-9, to be followed by EM-2.

Ground magnetic surveys have been completed on magnetic targets M-3, M-5, M-6, a portion of M-2 and seven smaller targets not shown on the map. All have been successful in improving the definition of anomalies detected by the airborne magnetic surveys. A survey is underway on target M-4.

Drilling

Drillhole EM-08-01 focused on a target with both electromagnetic and magnetic responses that are controlled by a north-south structure. There are many similar magnetic responses spread throughout the centre of the area, some with coincident electromagnetic responses. They reflect sources that are near surface but are not evident in the surface

topography. This drillhole was sited to determine whether this type of response is due to a pre-glacial paleochannel or to igneous rocks. The drillhole was attempted twice, the second reaching 161 m vertically below surface. It remained in overburden, composed of glacial deposits of sand and gravel with a few lenses of boulders and occasional voids. The drillhole was terminated due to the difficulty in progressing through the overburden and the anomaly source remains unexplained.

Drillhole M-07-01 focused on a linear magnetic anomaly that correlates with nearby responses over outcropping gabbro-dolerite. It is centred on a 2.1 km segment that is also conductive (VTEM conductor). This drillhole was sited to determine whether the conductive portion reflects Ni-Cu-PGE mineralization in the interpreted gabbro-dolerite. The vertical hole penetrated 153 m of glacial overburden and 230 m of Precambrian sediments, interpreted to be the Nelson Head formation within the Rae Group of the Shaler Supergroup. The hole was terminated at a depth of 384 m, after repeated difficulties obtaining return, and the anomaly source remains unexplained. The Precambrian sediments evolved with depth from quartz arenite or subarkose with lesser amounts of siltstone and mudstone to siltstone-mudstone with lesser amounts of sandstone, with a number of unconsolidated clay seams in the mudstone-rich interval. They will be analyzed for their geochemical signatures at regular intercepts.

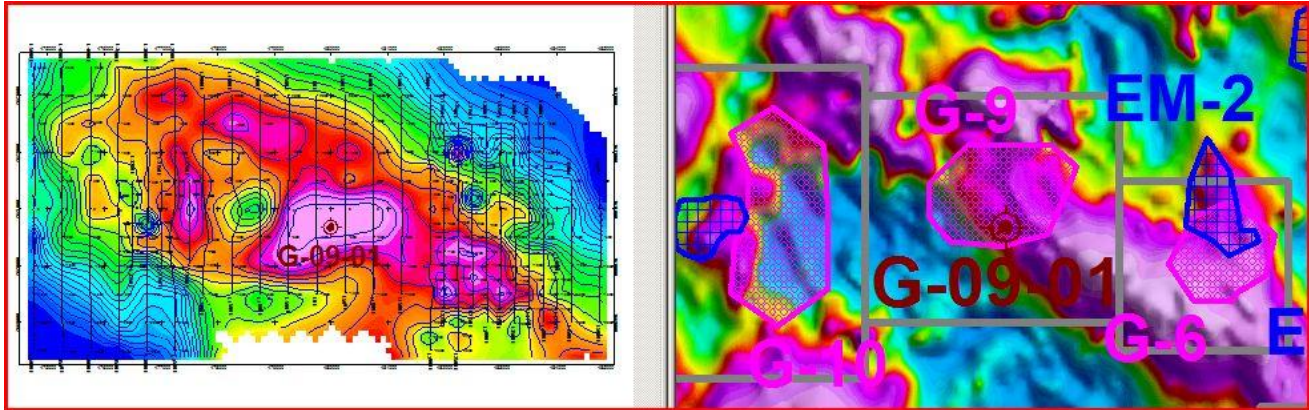
The drilling has been slowed by the difficult overburden conditions and weather that prevents helicopter travel, including a recent week-long blizzard. The drill crew has been diligent in its attempts to penetrate the overburden and stabilize the holes, utilizing NW, HW and PW (122.6 mm hole diameter) casing and a variety of drilling muds and cement (bentonite). The remaining drillholes and geophysical surveys can all be reached from the camp by snow machine, which will reduce the dependence on helicopters when visibility is limited.

The drill is currently being moved to drillhole G-09-01, located within the southeast lobe of the Darnley Bay Anomaly. The collar location is centred on a 2.2 km x 1.0 km gravity anomaly measured on the recent ground survey, part of a larger ESE-striking zone of positive gravity response extending to G-6 and G-10, and roughly coincident with a zone of positive magnetic response (see images below).

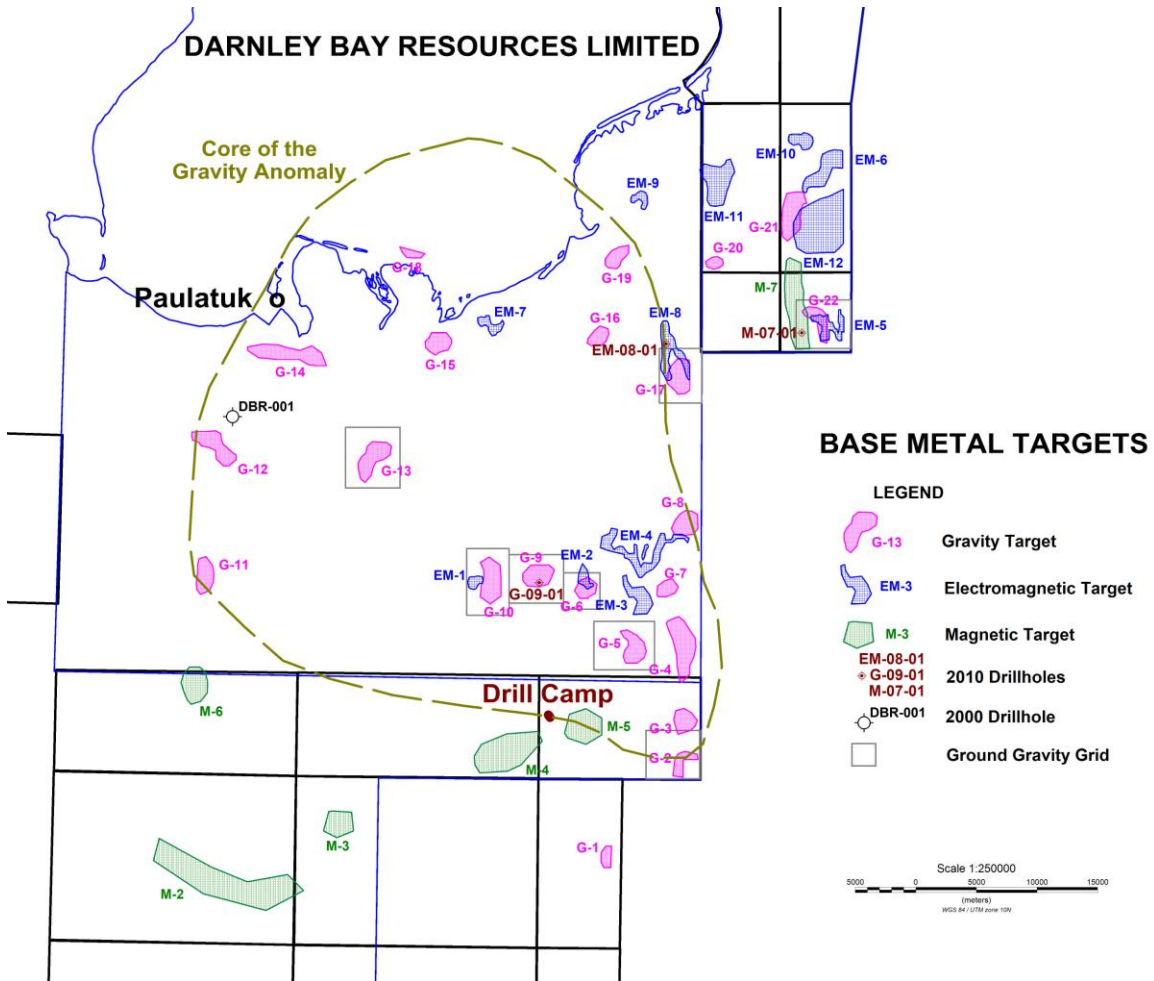
The next drillhole is planned on target G-13 in the heart of the Darnley Bay Anomaly.



Ground magnetic crews returning to camp.



Drillhole G-09-01 (area of each image is 11 km x 7 km)
 Left – Ground gravity over grids G-6, G-9 and G-10
 Right – Airborne magnetic image of the residual magnetic field (6 km filter)



Location map of base metal targets with drilling and ground follow-up.