

Spartan MT Detects Basement Conductors on Beartooth Island Prospect

PURPOSE:

A Spartan MT survey was deployed to map vertical basement conductors below the Athabasca Unconformity at depths of over 600 metres. Additionally, Spartan was used to map resistivity lows related to possible alteration halos proximal to potential uranium mineralization located above the basement conductors.

CHALLENGES:

The depth to the top of any basement conductor is over 600 metres. The presence of the Wolverine Point Formation mudstone forms a flat lying conductor that masked the deeper basement conductors from airborne EM surveys. The first Spartan survey needed to be completed in less than a month, before the break up of Lake Athabasca ice in April.

SURVEY:

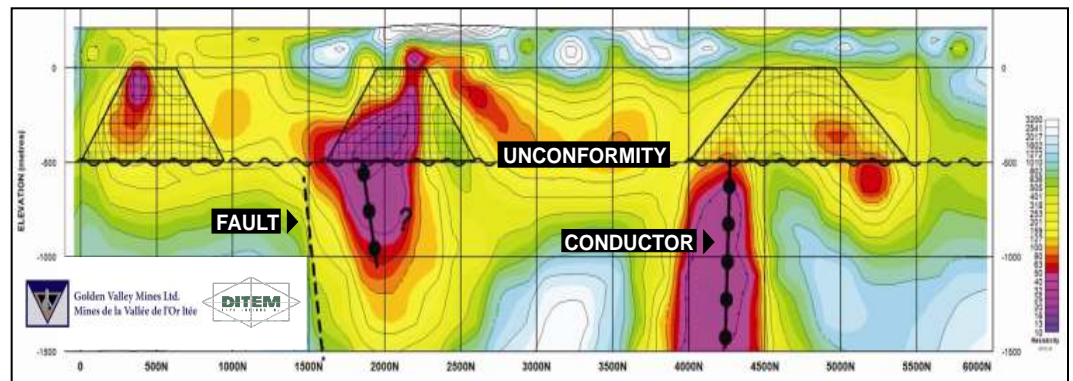
Golden Valley Mines Ltd and Ditem Exploration Inc. Contracted a Spartan MT survey in the winter of 2007, Phase 1, and winter 2008 phase 2.

SPARTAN MT SOLUTION:

Spartan data loggers were used to record MT data from a series of multiple dipole arrays arranged along grid lines laid out on the lake ice. The Spartan MT survey was designed to map vertical basement conductors below the conductive Wolverine Point mudstone at depths of over 600 metres. The phase 1 survey was completed in three weeks before the onset of breakup.

The Beartooth Island project is located in the central portion of Lake Athabasca in Northern Saskatchewan. The property is almost entirely under water and the unconformity is over 700 metres below the surface. The basement conductors are completely overlain by the flat lying conductive Wolverine Point Formation mudstone. The presence of a flat lying conductive sheet inhibited the detection of deeply buried vertical basement conductors located beneath the unconformity.

Exploration with Spartan MT was designed to map vertically oriented basement conductors below the Athabasca Unconformity as well as to map resistivity lows related to clay rich alteration zones that are found proximal to uranium mineralization in sediments overlying the unconformity uranium deposits.



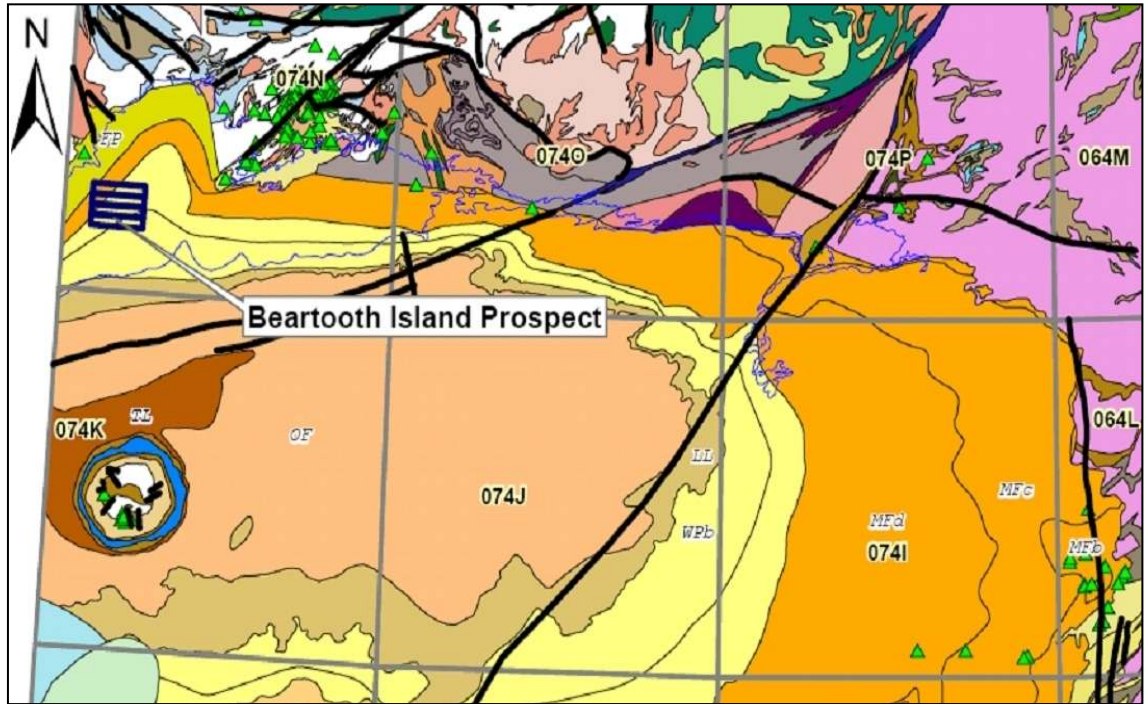


Uranium Exploration - Lake Athabasca

RESULTS:

Quantec's Spartan MT detected several near vertical basement conductors below the Athabasca Unconformity. Spartan mapped the unconformity at depths of 700 metres. Several areas of resistivity lows were also mapped in the Athabasca sediments above the basement conductors.

Basement conductors were detected in borehole TEM surveys of two drill holes targeted at Spartan conductors and drilled in the winter of 2008. Hydrothermal alteration zones with elevated boron values were also intersected in the Athabasca sediments. Follow up drilling is planned to intercept the basement conductors. Drilling will also be targeted at resistivity lows mapped by Spartan above the basement conductor to test for potential uranium mineralization.



Athabasca Basin, Northern Saskatchewan

Golden Valley Mines Inc and Option/Joint Venture partner Ditem Explorations Inc will soon commence drill testing prospective resistivity lows detected by Spartan MT in the Athabasca sediments located above the basement conductors.

Golden Valley Mines is a mining exploration company with approximately 137 exploration properties located in: (i) the Abitibi Greenstone Belt; (ii) the James Bay, Mistassini and Otish regions of northern Quebec; (iii) the Nunavik (Ungava and Labrador) region of northern Quebec; and (iv) the Athabasca Basin of Saskatchewan.

About Quantec

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Our offices throughout the world allow access to a collective knowledge database of thousands of projects with practically all possible geophysical surveys.

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Head Office: Toronto, Canada
416 306 1941

- ARGENTINA - Mendoza: 54 261 4961414
- AUSTRALIA - Brisbane: 07 3359 0444
- BOTSWANA - Lobatse: 267 533 0954
- BRAZIL - Goiânia (Terracorp): 55 62 3541 3747
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