LAMONTAGNE GEOPHYSICS LTD
GEOPHYSIQUE LTEE

20 Binnington Court, Kingston, Ontario, Canada K7M 8S3
Tel: (1) 613.531.9950 Fax: (1) 613.531.8987 info@lgl.kos.net
http://www.lamontagnegeophysics.com/

UTEM Survey Results - Lalor Deposit

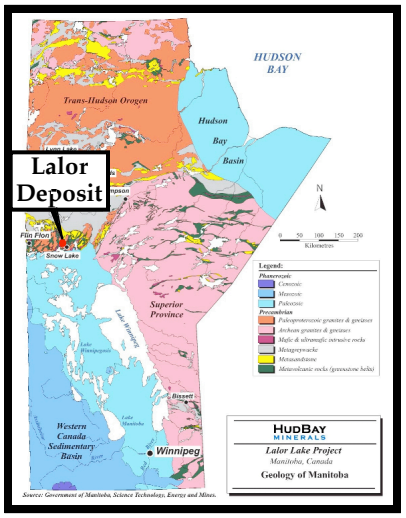
February 2011

HUDBAY MINERALS

Survey Background

HudBay's Exploration Focus in the Flin Flon – Snow Lake Greenstone Belt. (November 2010)
K. Gilmore, J. Levers, R. Carter (HudBay Minerals Inc.)

HudBay discovered the Lalor Deposit near the Town of Snow Lake in March 2007 and has rapidly advanced it to a world class zinc and gold rich VMS deposit status. Despite a commitment of over $0.5 billion to develop the deposit and starting an $85m access ramp to the deposit, exploration has not stopped and HudBay recently added two exploration drills on the property. Early exploration at Lalor focused on the base metal rich zinc rich massive sulphide and borehole electromagnetic geophysics played a key role in following the conductive sulphide rich mineralization.



Survey Layout and Setting

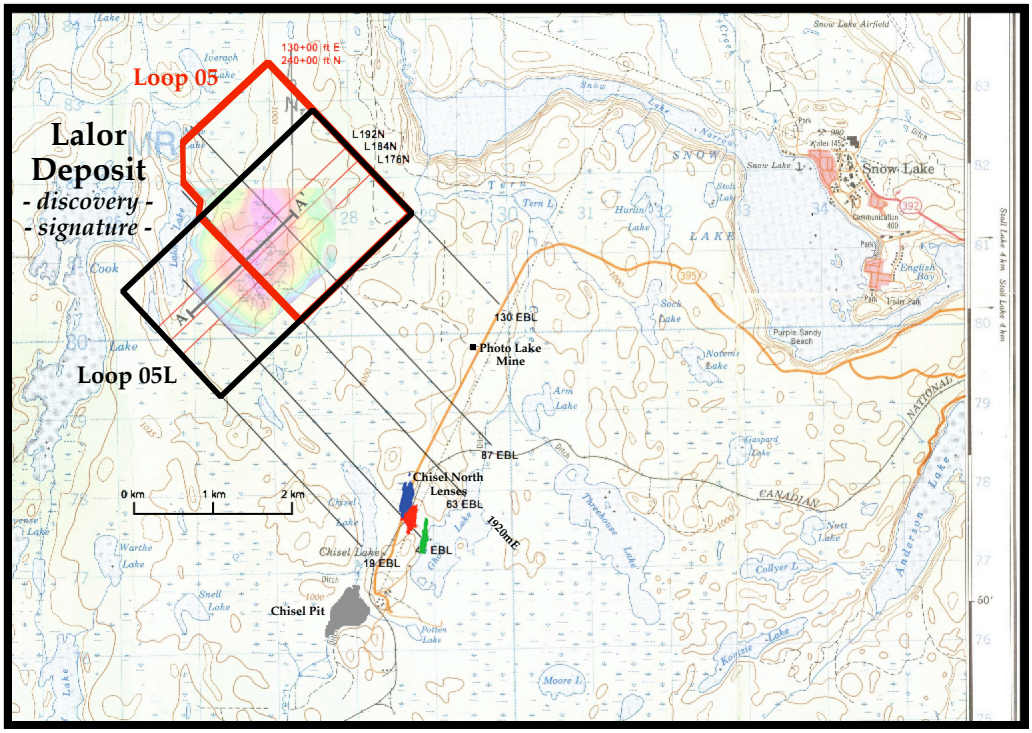
The UTEM Survey Layout and Setting is shown below. The two transmitter loops used during the survey are shown:

- Loop 05 : the Lalor test loop. Designed to test the deeper extent of the deposit
- Loop 05L: designed to couple with the entire deposit.

Surveying proceeded as follows:

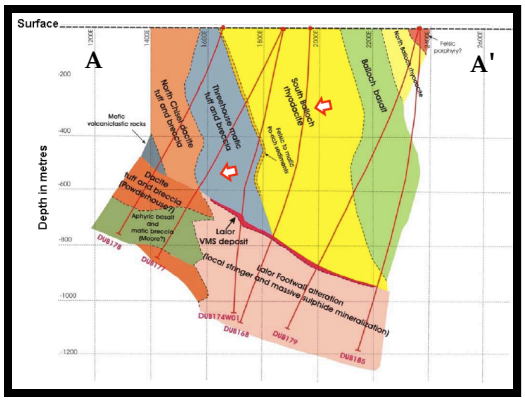
Loop 05 was used to survey:
- 3 lines - Lines 176/184/192N - Hz (vertical component) @ 30Hz.
- 1 line - Line 184N - Hz and Hx (inline horizontal component) @ 4Hz

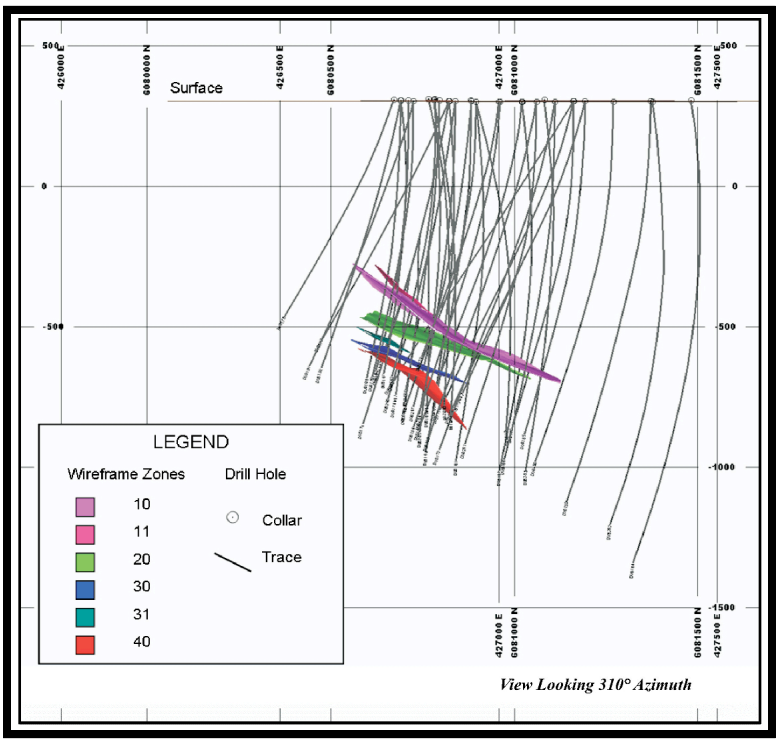
Loop 05L was then laid out and used to survey:
- 2 lines - L176/184N - Hz and Hx @ 4Hz



LAMONTAGNE GEOPHYSICS LTD
GEOPHYSIQUE LTEE

20 Binnington Court, Kingston, Ontario, Canada K7M 8S3
Tel: (1) 613.531.9950 Fax: (1) 613.531.8987 info@lgl.kos.net
http://www.lamontagnegeophysics.com/





Lalor Deposit

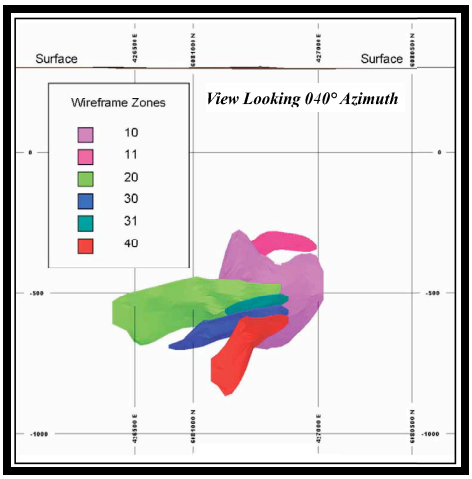
The Lalor deposit, detailed in these four figures, is located in the Chisel Basin portion of the Flin Flon Greenstone Belt and is believed to be the largest VMS deposit found in this region to date.

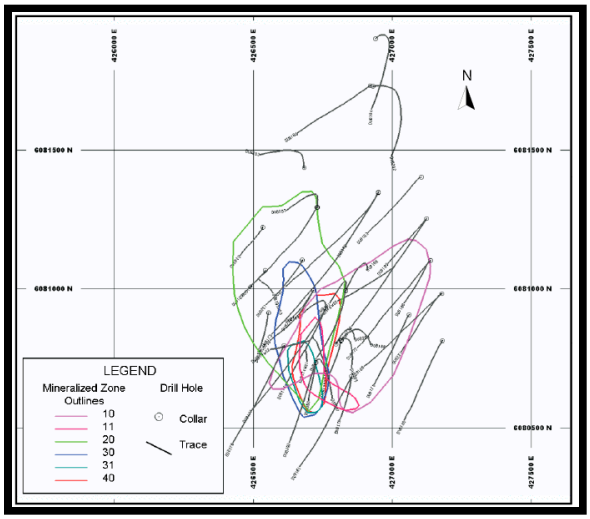
The figures detail the Zinc-rich Base Metal zone: Mineralization occurs in six separate stacked lenses - Zones -10,11,20,30,31,40 - of zinc rich polymetallic near-solid to solid sulphide mineralization at ~570m to 1,170m below surface. In October 2009 an **Indicated Resource of:**
12.3MT 1.6 g/t Au, 24.2 g/t Ag, 0.66% Cu, 8.70% Zn
Inferred Resource of:
5.0MT 1.4 g/t Au,25.5 g/t Ag,0.57% Cu, 9.39% Zn were disclosed.

The higher sulphide copper gold mineralization discovered down plunge of the massive sulphide lenses is responsive to borehole electromagnetic surveys. Exploration has focused on the down plunge mineralization - at depths of 1000m vertical depth and on - and to date has delineated:

Gold zone: Low-sulphide precious metal intersections associated with chalcopyrite and galena. On October 8, 2009 HudBay announced a conceptual estimate of a potential gold zone, interpreted as five discrete mineralized lenses that can contact the near solid sulphide zinc rich mineralization.

Copper-Gold zone: Disseminated-to-near-solid chalcopyrite with lesser pyrrhotite and minor pyrite, sphalerite and galena located to the north of Gold zone 27 at approximately 15 to 20 degrees down plunge and at vertical depths of between 1,200 and 1,300 meters.





LAMONTAGNE GEOPHYSICS LTD
GEOPHYSIQUE LTEE

20 Binnington Court, Kingston, Ontario, Canada K7M 8S3
Tel: (1) 613.531.9950 Fax: (1) 613.531.8987 info@lgl.kos.net
http://www.lamontagnegeophysics.com/

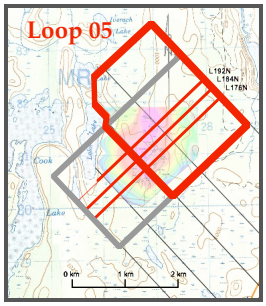
UTEM Survey Profiles - Lalor Deposit *February 2011*

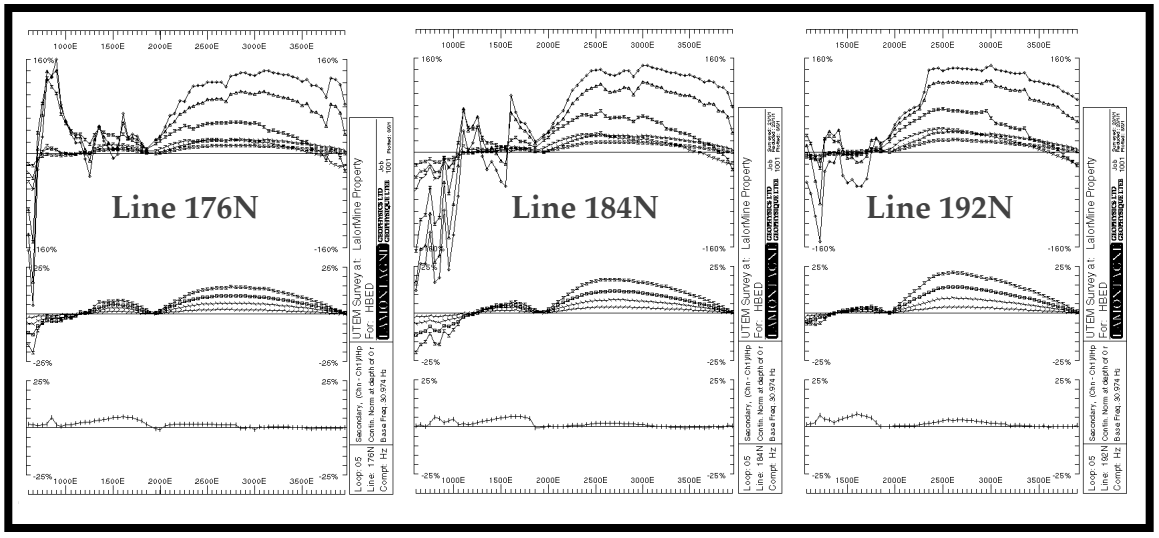
HUDBAY MINERALS

Lalor Deposit UTEM Profiles notes

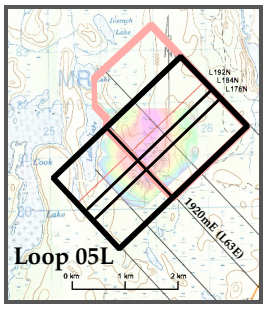
Profiles are shown for Loop 05 and Loop 05L reduced with UTM easting/northings but not topography.

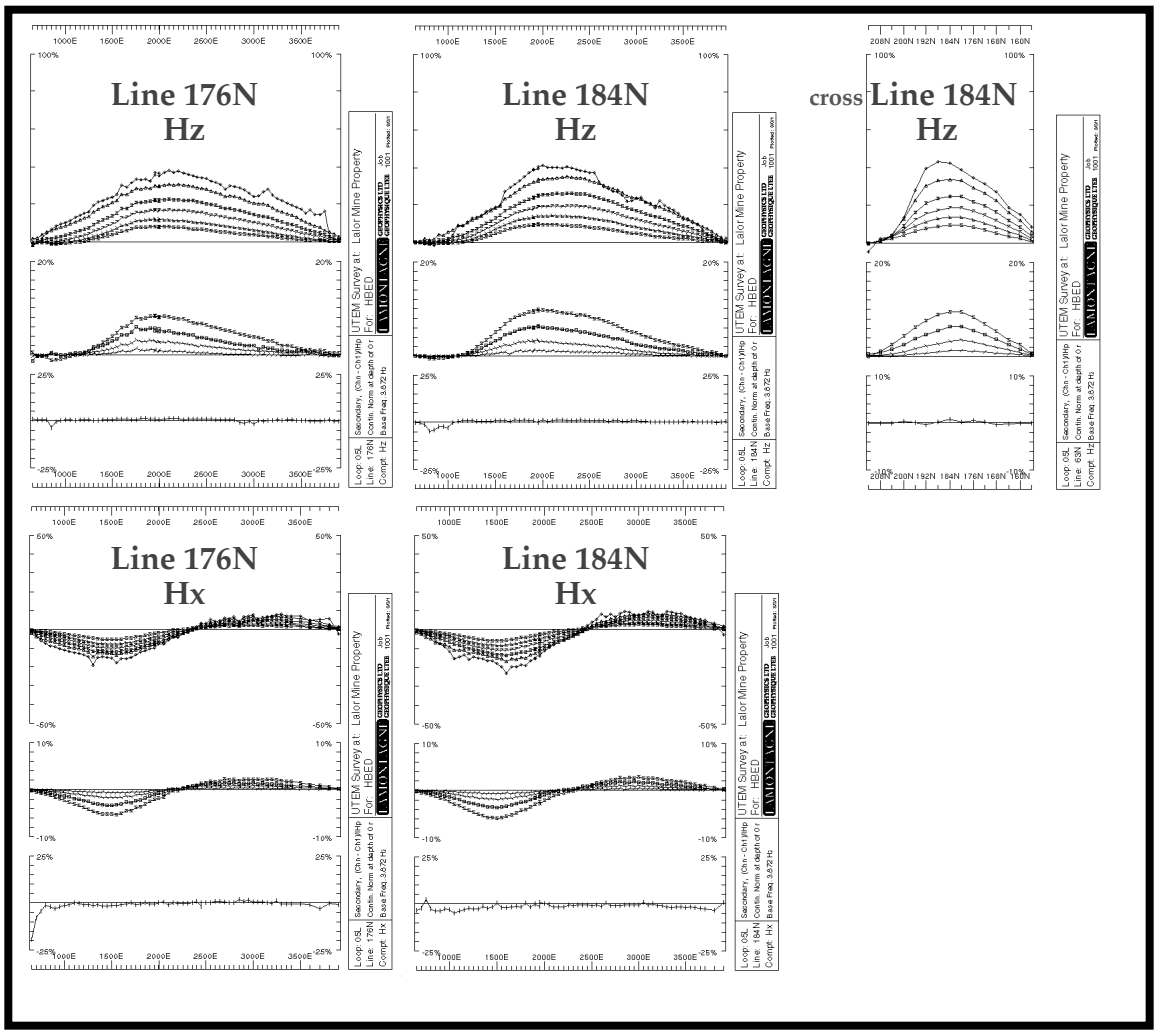
Loop 05 30Hz





Loop 05L 4Hz





LAMONTAGNE GEOPHYSICS LTD
GEOPHYSIQUE LTEE

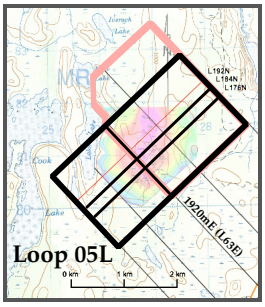
20 Binnington Court, Kingston, Ontario, Canada K7M 8S3
Tel: (1) 613.531.9950 Fax: (1) 613.531.8987 info@lgl.kos.net
http://www.lamontagnegeophysics.com/

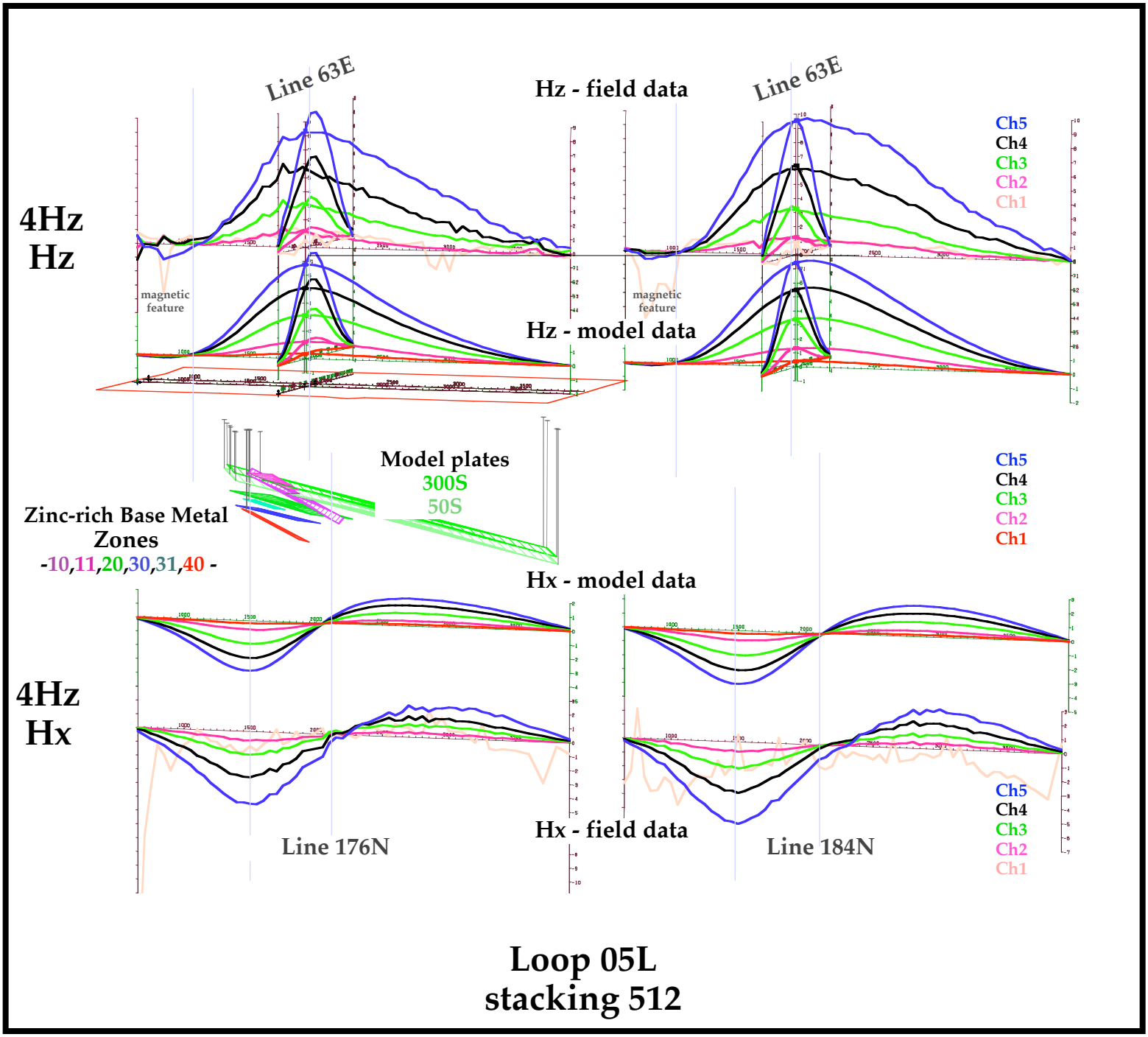
MultiLoop Modelling Results - Lalor Deposit

Initial MultiLoop modelling results for the UTEM Loop 05L profiles - Lines 176N, 184N and cross-Line 63E - is shown below. The deposit is clearly detectable.

The 4Hz UTEM response is modelled with:

- a single **300S** plate modelling the Upper Chisel/Lower Chisel contact surface
- a broader, 50m deeper, **50S** plate modelling the response of the footwall alteration/mineralization package
- Zinc-rich Base Metal Zones **-10,11,20,30,31,40 -** are roughed in as 300S plates (from the 43-101 information) erring a bit on the large size - cut off is grade, not conductivity.





Loop 05L
stacking 512

For more information, please visit us at PDAC booth 1103