Controls on gold mineralization in the White Gold district, western Yukon

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& Mike Burke

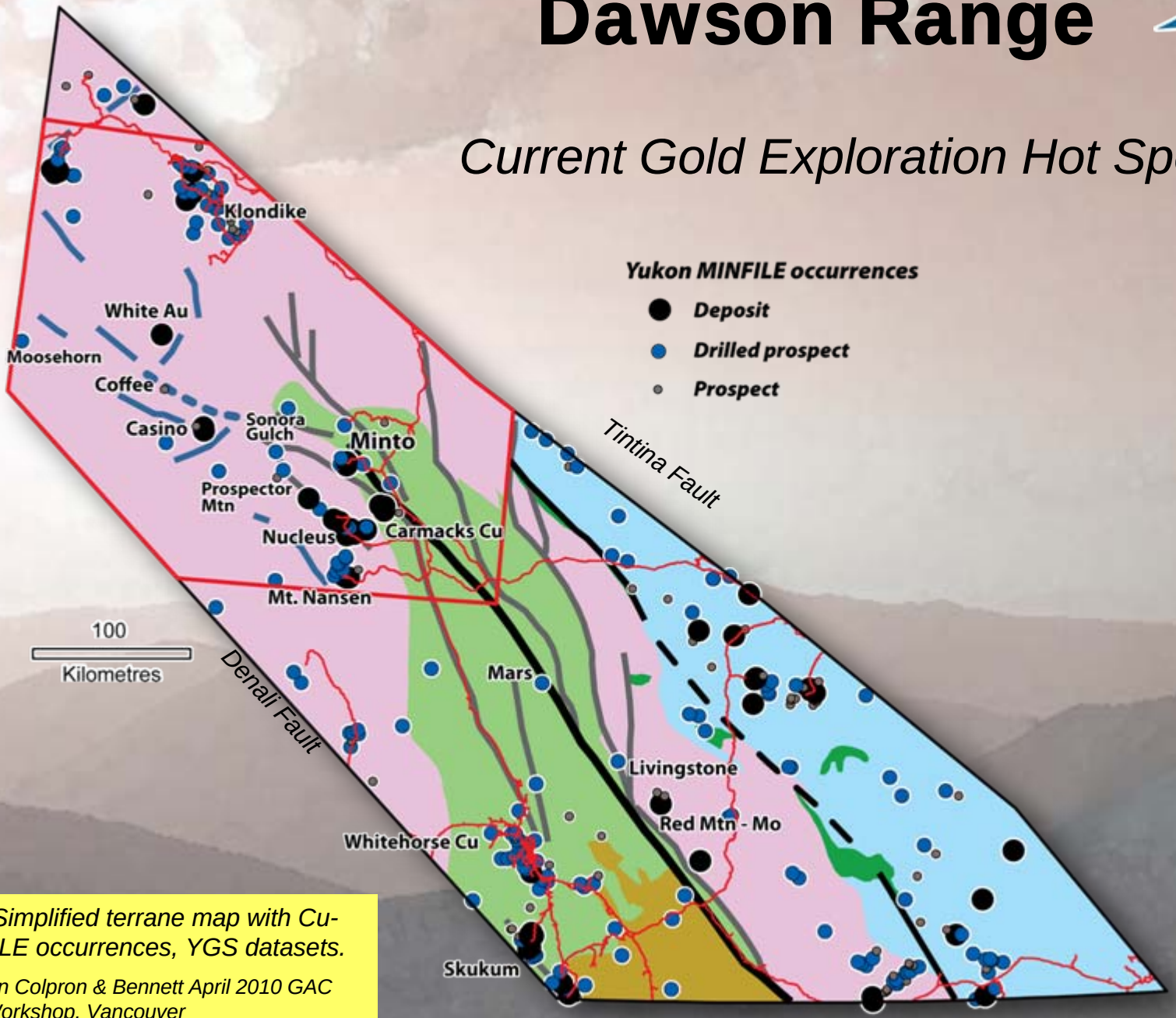
Yukon Geological Survey

Miscellaneous Report 2

Presentation 2

Dawson Range

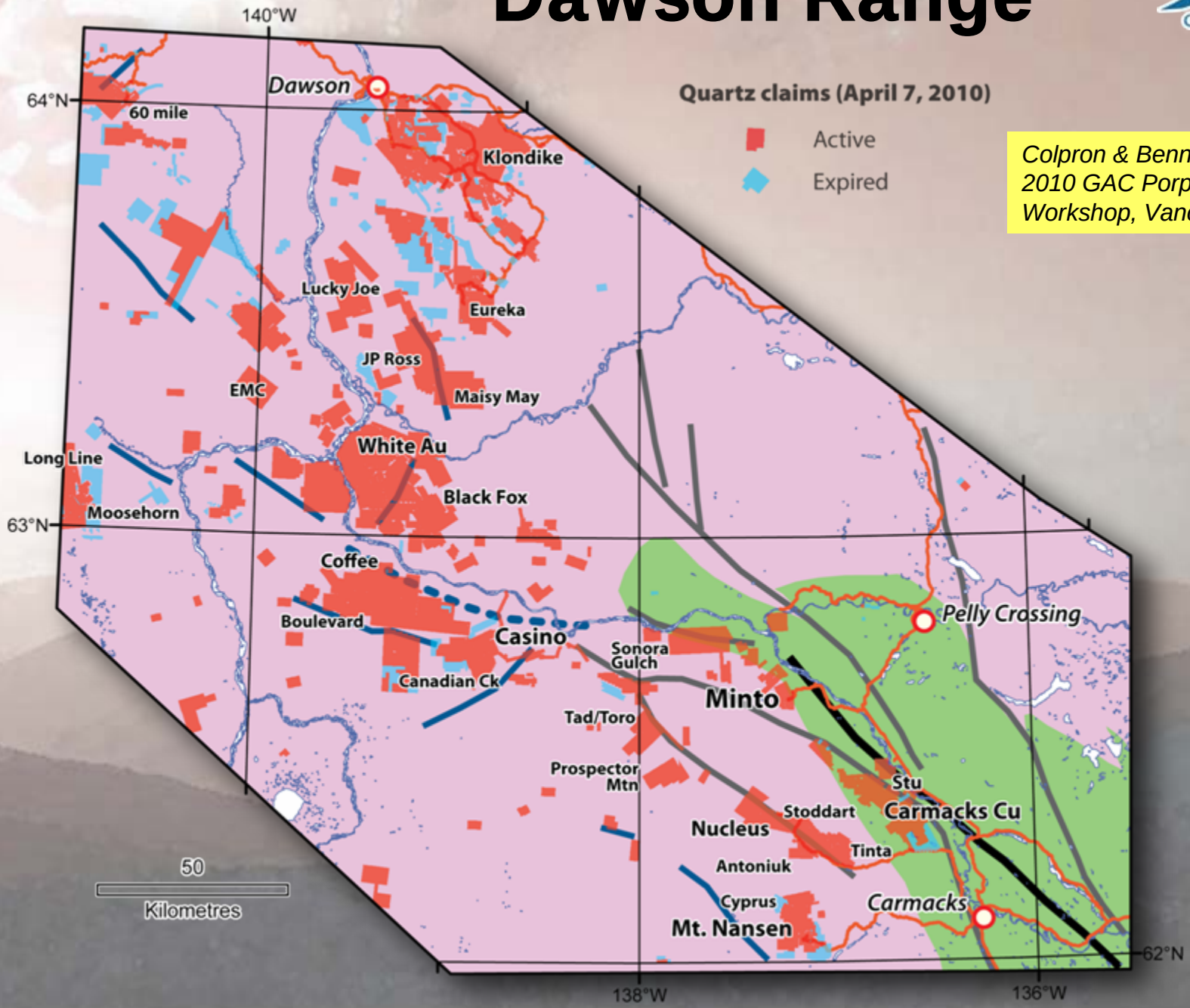
Current Gold Exploration Hot Spot



***Source**: Simplified terrane map with Cu-Au MINFILE occurrences, YGS datasets.*

Presented in Colpron & Bennett April 2010 GAC Porphyry Workshop, Vancouver

Dawson Range



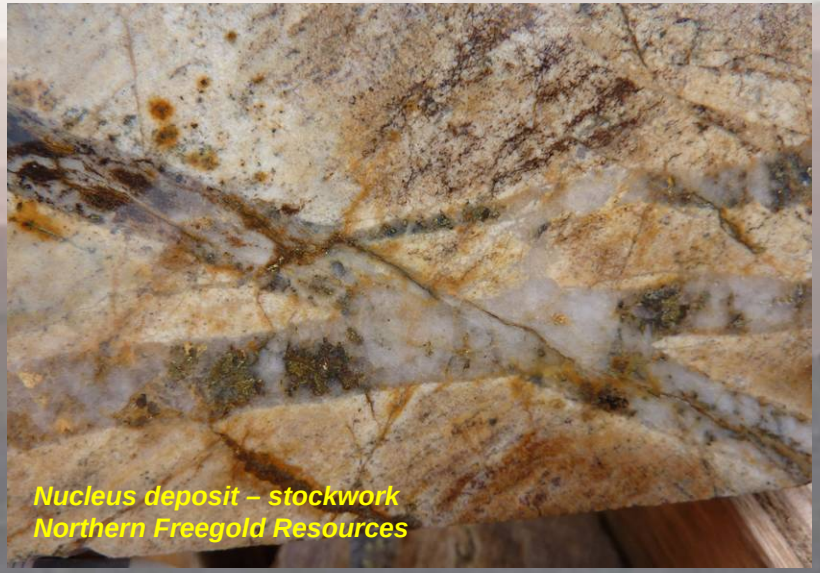
Colpron & Bennett April 2010 GAC Porphyry Workshop, Vancouver

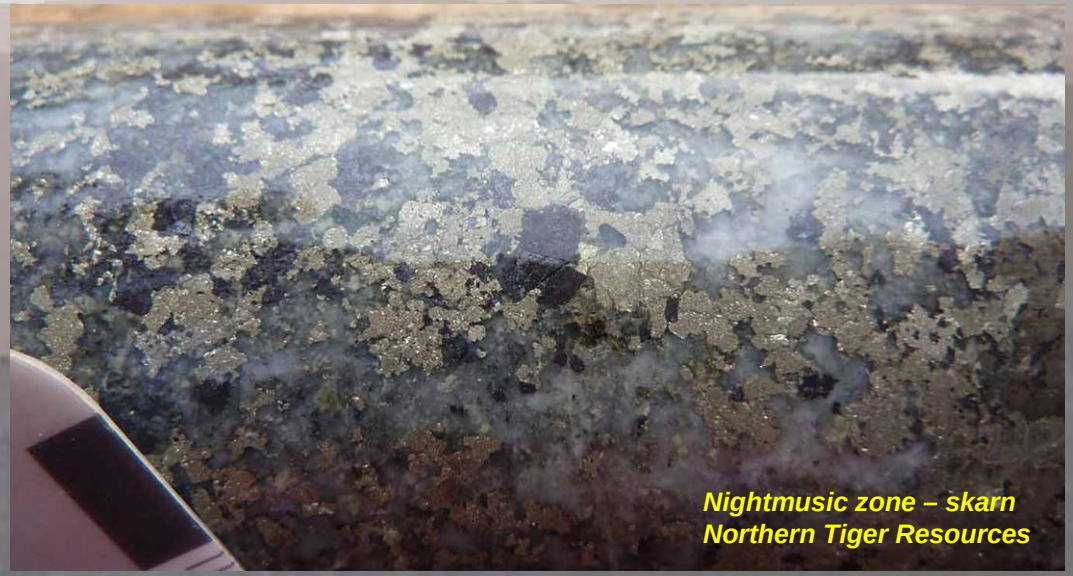
Dawson Range

- *Wide range in style of Cu-Au mineralization*
  Porphyry, skarn/replacement, breccia, veins, epithermal overprint

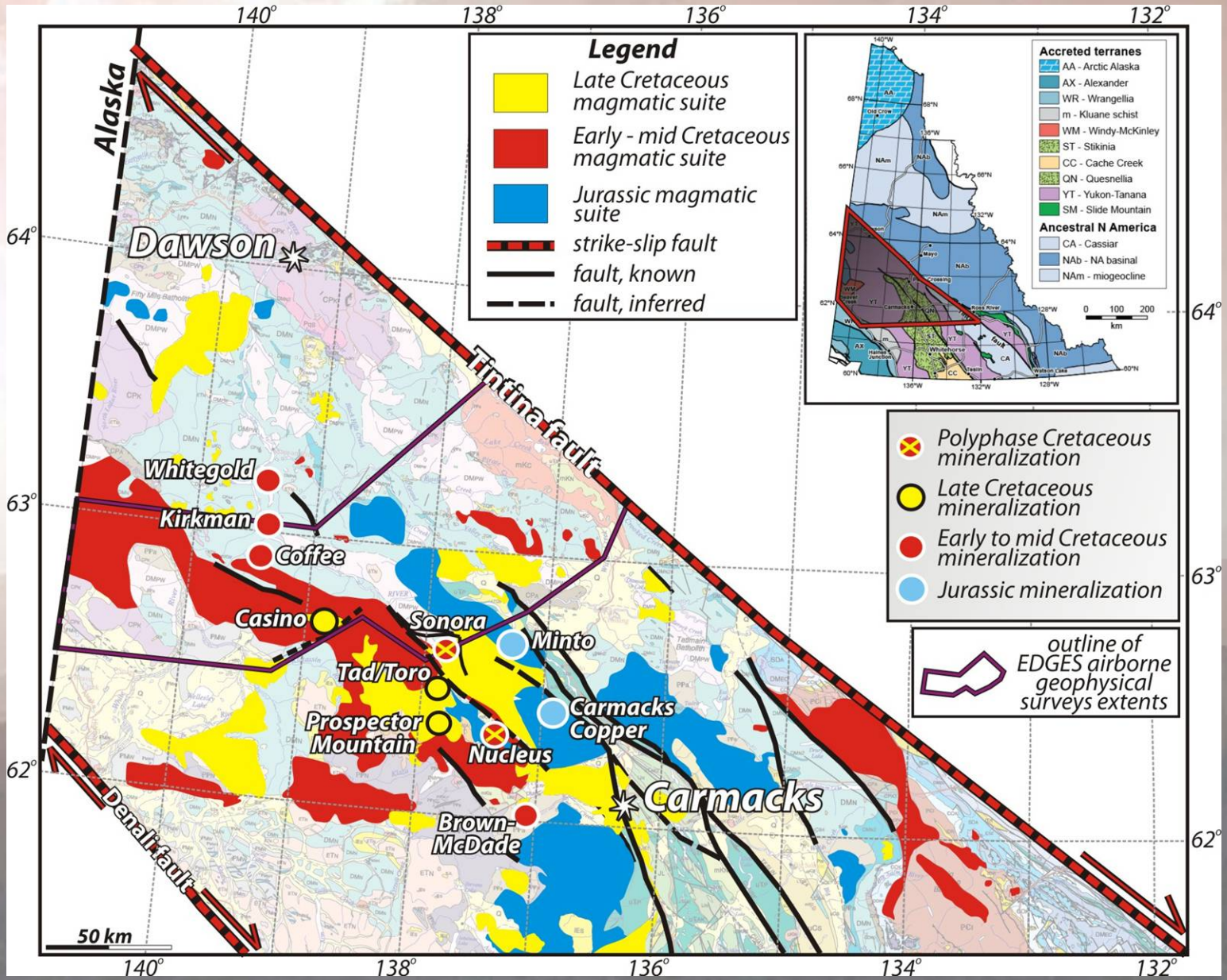
- *Commonly structurally-controlled:*
  1st order NW – WNW-trending faults (P)
  2nd order NE- or N-trending faults (R)
  3rd order E trending interior faults (R')

- *Evidence of polyphase mineralization common*


Nucleus deposit – stockwork
Northern Freegold Resources


Nightmusic zone – skarn
Northern Tiger Resources

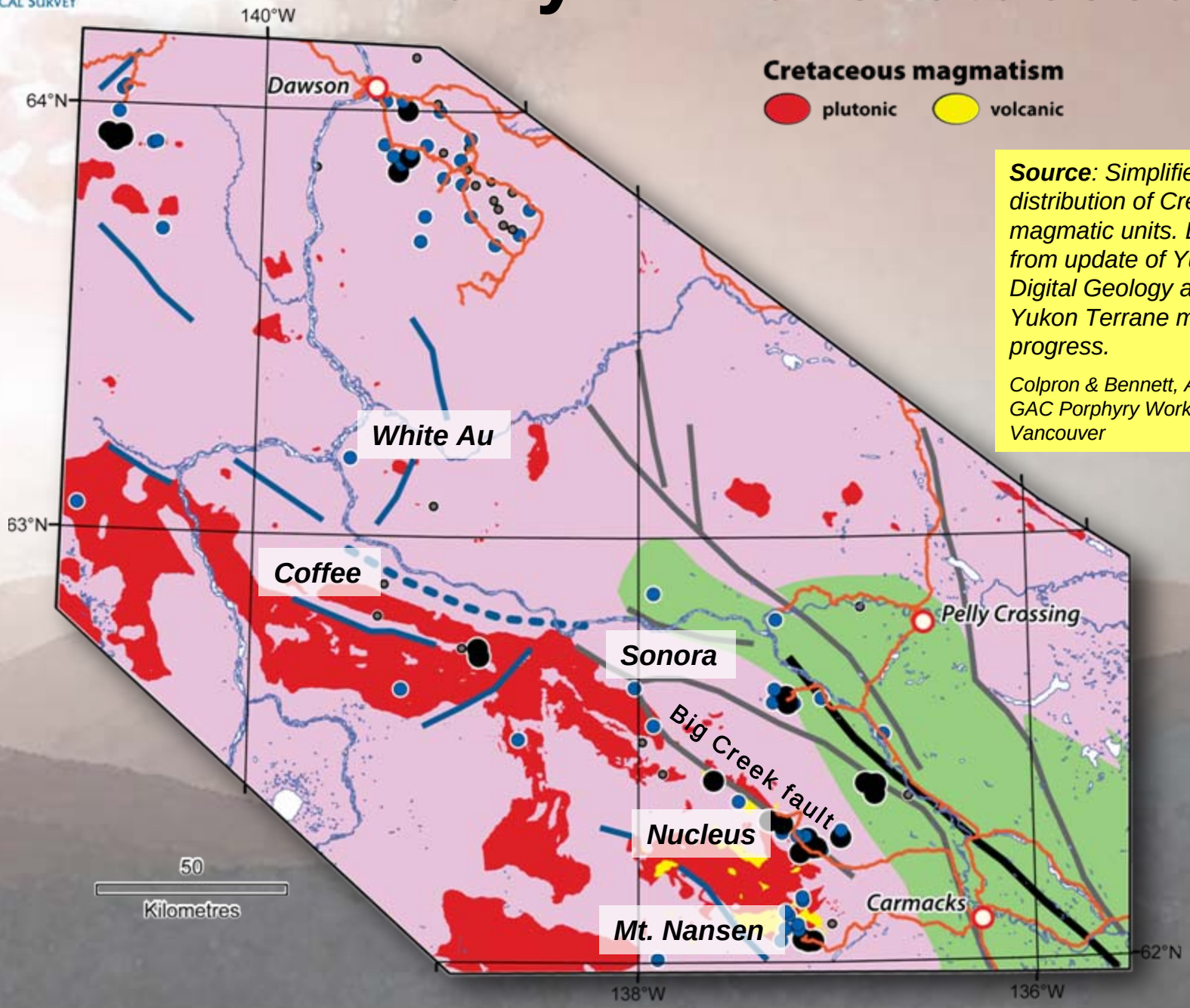
Dawson Range Magmatism



***Source**: Simplified distribution of Cretaceous magmatic units. Derived from Yukon Digital Geology compilation and Yukon Terrane map.*

Presented Roundup 2010 poster

Early – mid-Cretaceous

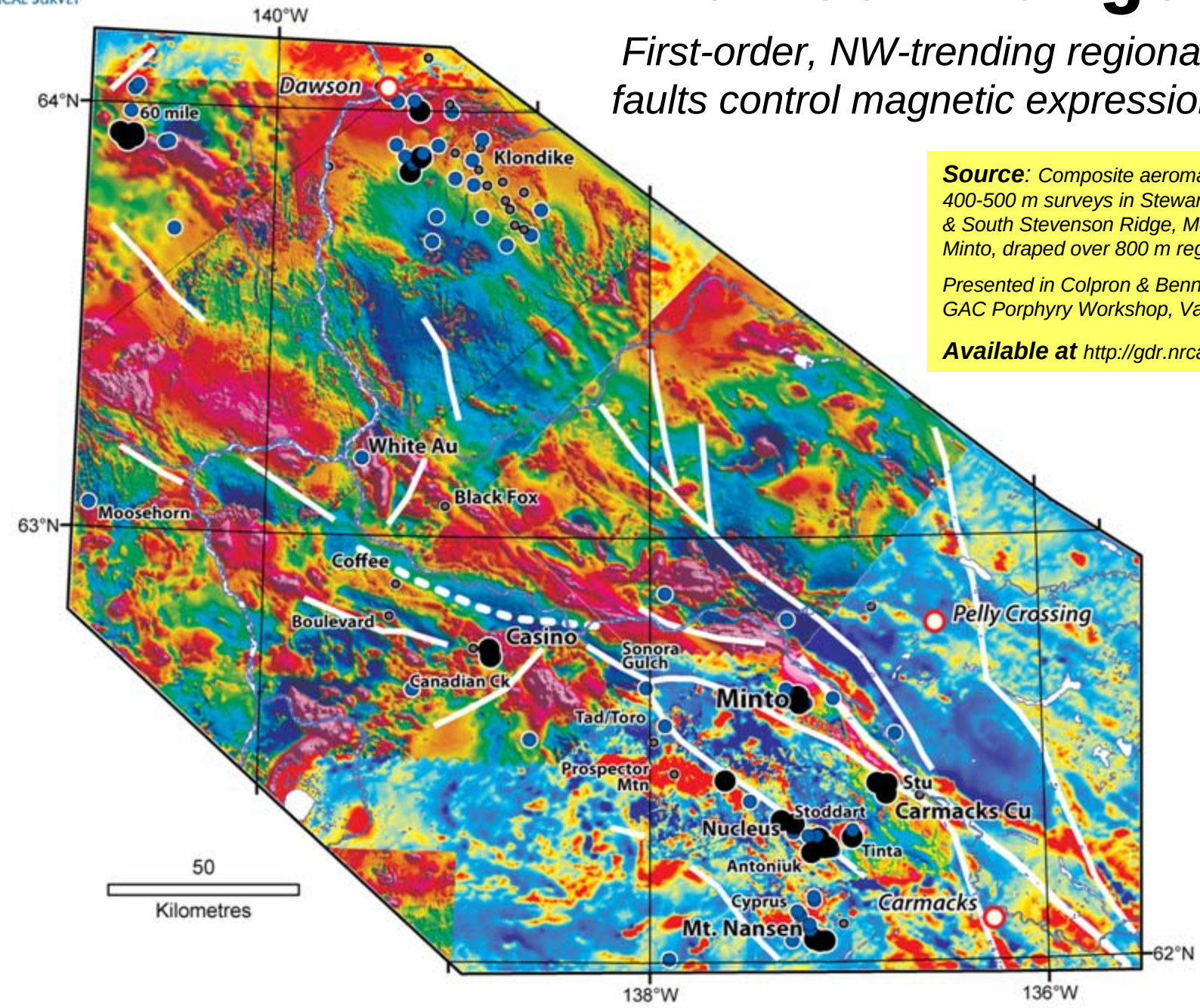


***Source**: Simplified distribution of Cretaceous magmatic units. Derived from update of Yukon Digital Geology and Yukon Terrane map in progress.*

Colpron & Bennett, April 2010 GAC Porphyry Workshop, Vancouver

Dawson Range

First-order, NW-trending regional faults control magnetic expression



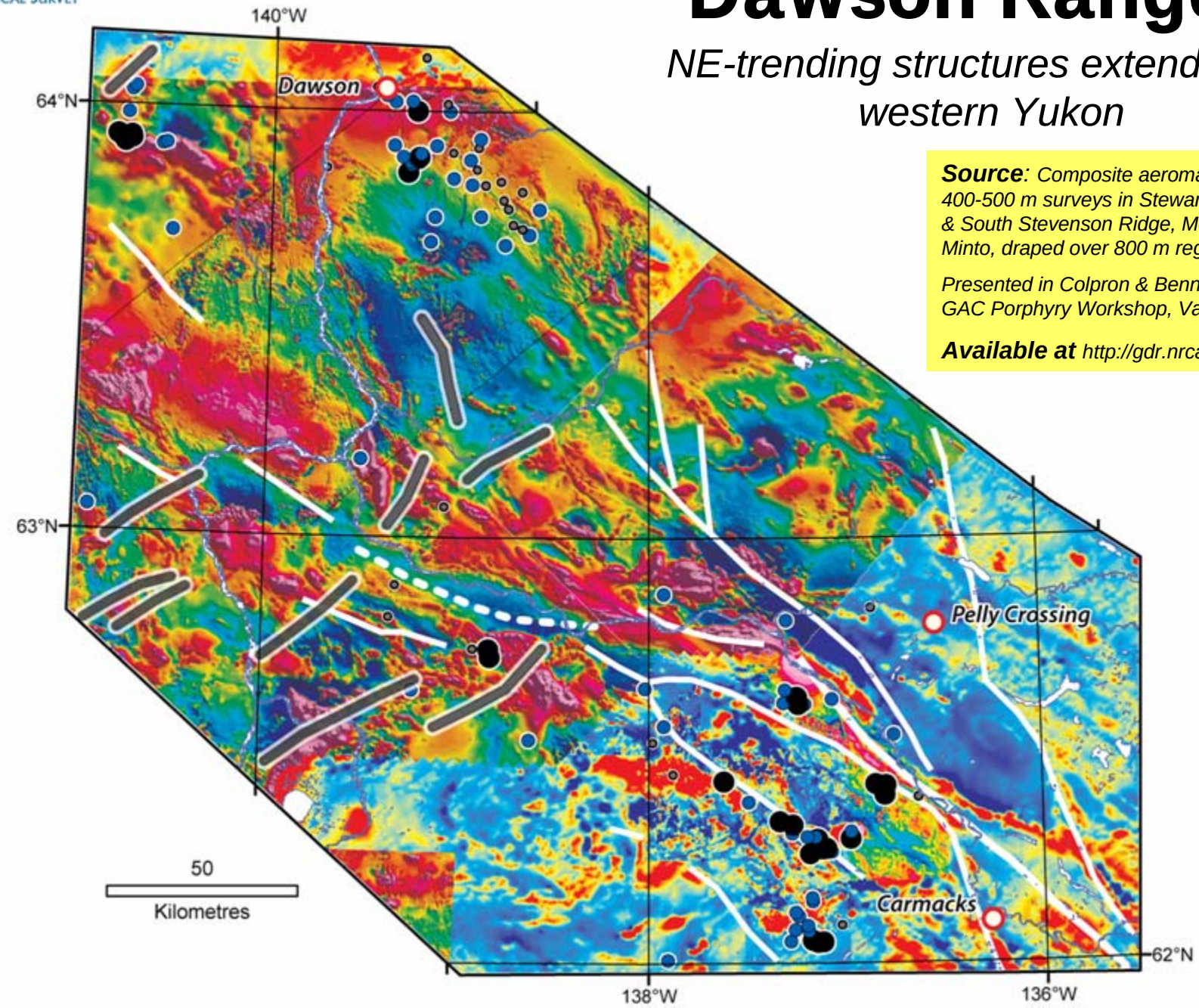
***Source**: Composite aeromagnetic data – 400-500 m surveys in Stewart River, North & South Stevenson Ridge, McQuesten and Minto, draped over 800 m regional dataset.*

Presented in Colpron & Bennett, April 2010 GAC Porphyry Workshop, Vancouver

***Available at** http://gdr.nrcan.gc.ca*

Dawson Range

NE-trending structures extend in western Yukon

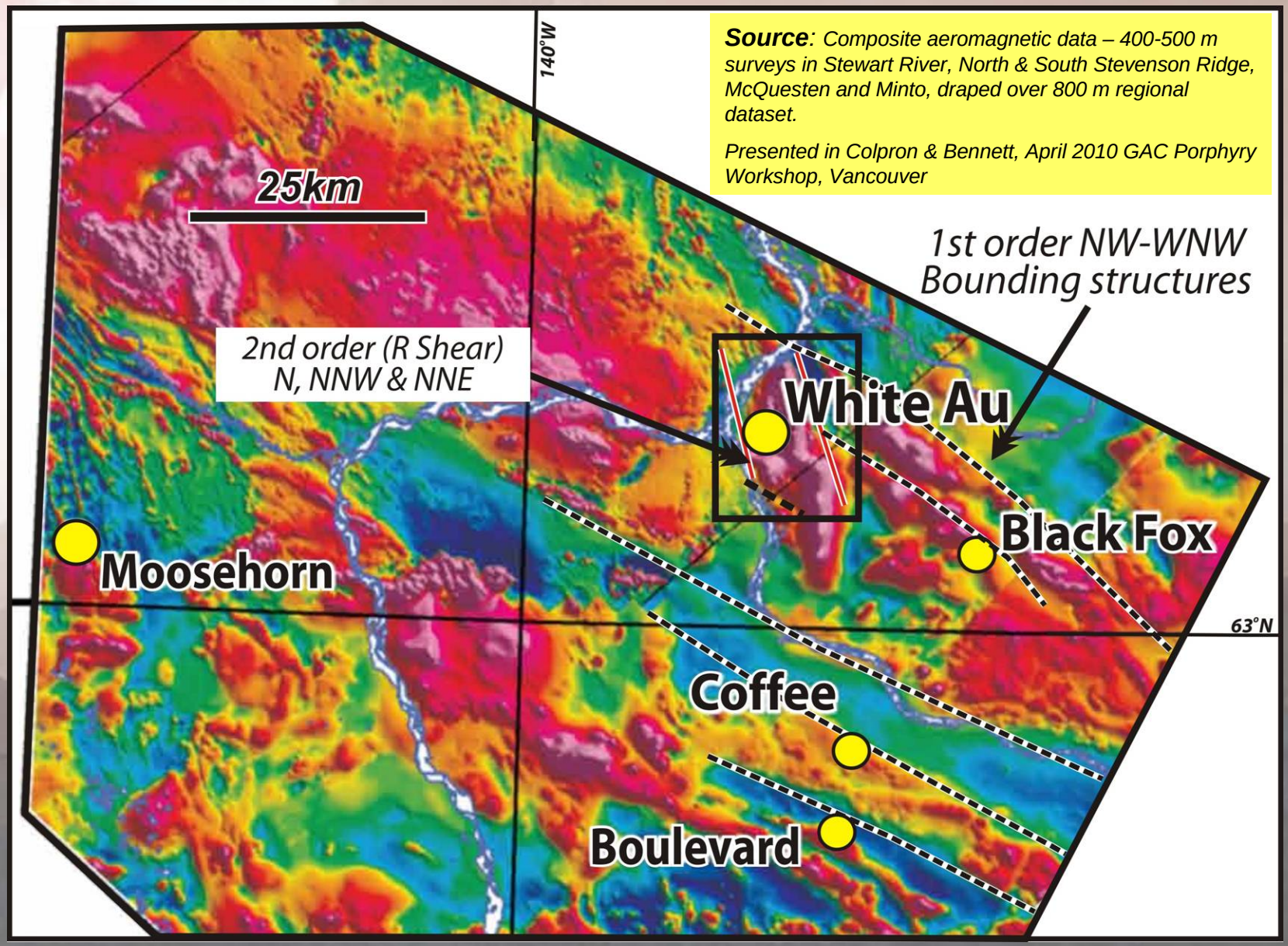


***Source**: Composite aeromagnetic data – 400-500 m surveys in Stewart River, North & South Stevenson Ridge, McQuesten and Minto, draped over 800 m regional dataset.*

Presented in Colpron & Bennett, April 2010 GAC Porphyry Workshop, Vancouver

***Available at** http://gdr.nrcan.gc.ca*

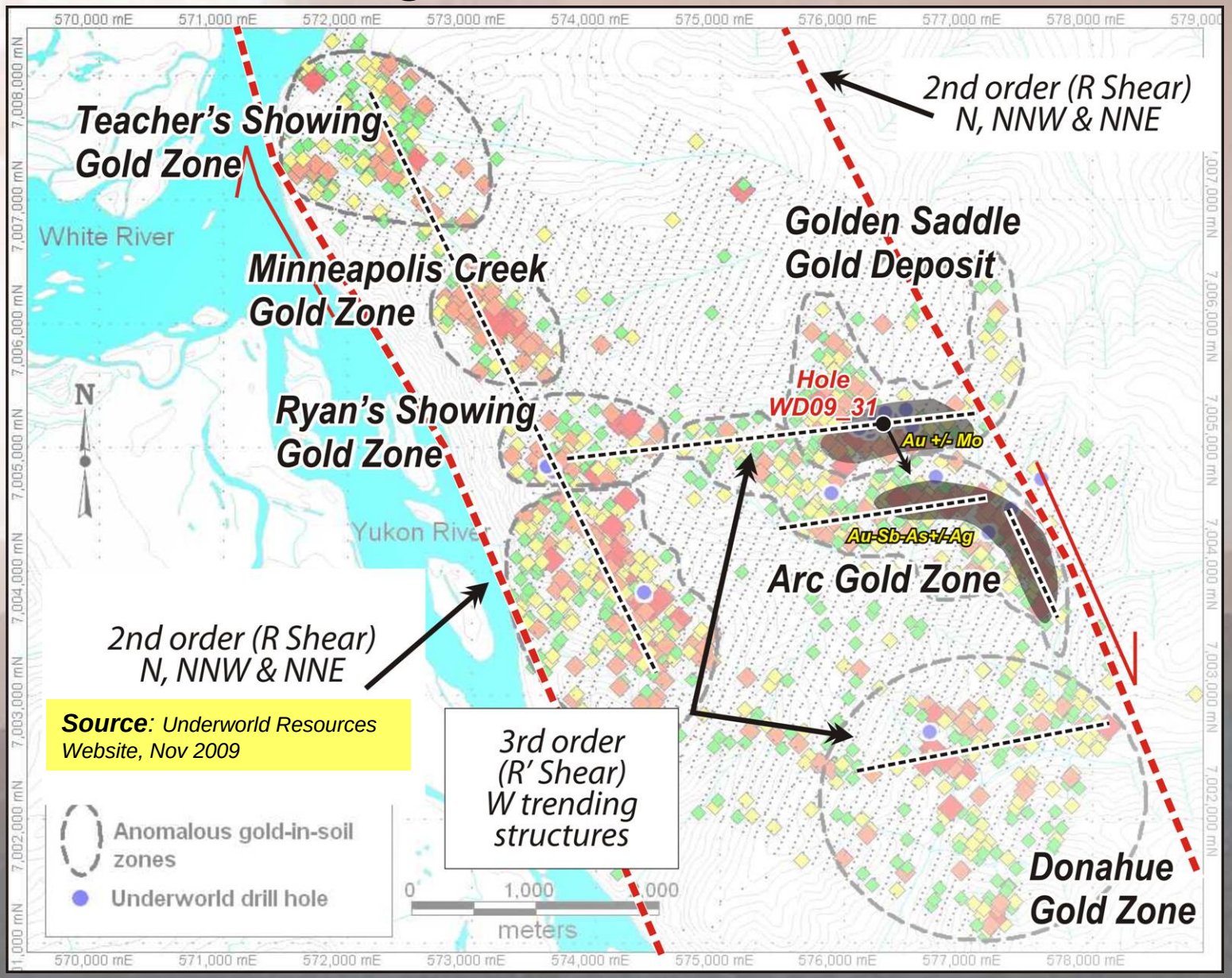
White Gold Deposit, NW trending, first order structures



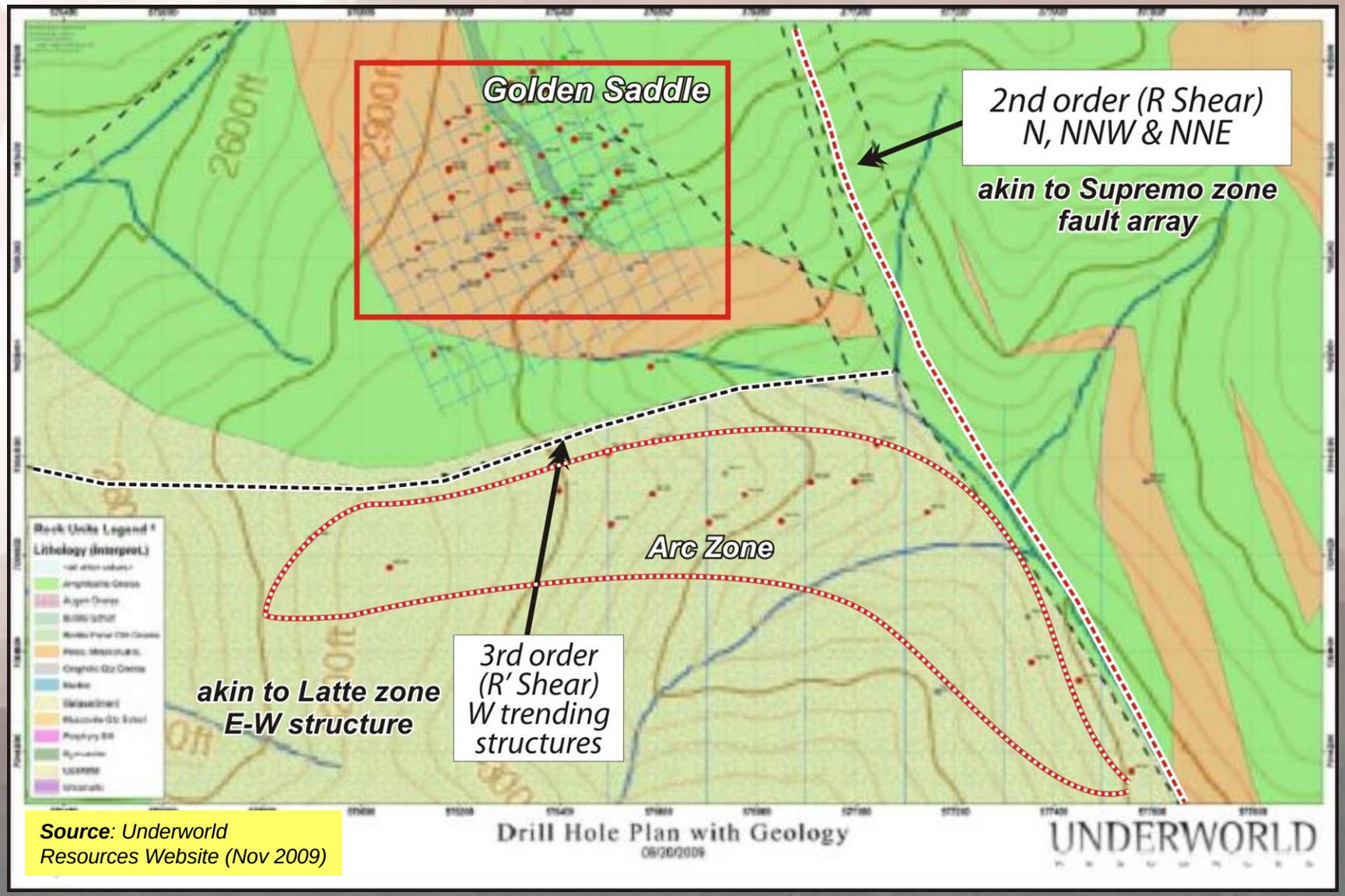
***Source**: Composite aeromagnetic data – 400-500 m surveys in Stewart River, North & South Stevenson Ridge, McQuesten and Minto, draped over 800 m regional dataset.*

Presented in Colpron & Bennett, April 2010 GAC Porphyry Workshop, Vancouver

White Gold Deposit
N-trending, second order structures



White Gold Deposit
W-trending, third order structures



***Source**: Underworld Resources Website (Nov 2009)*

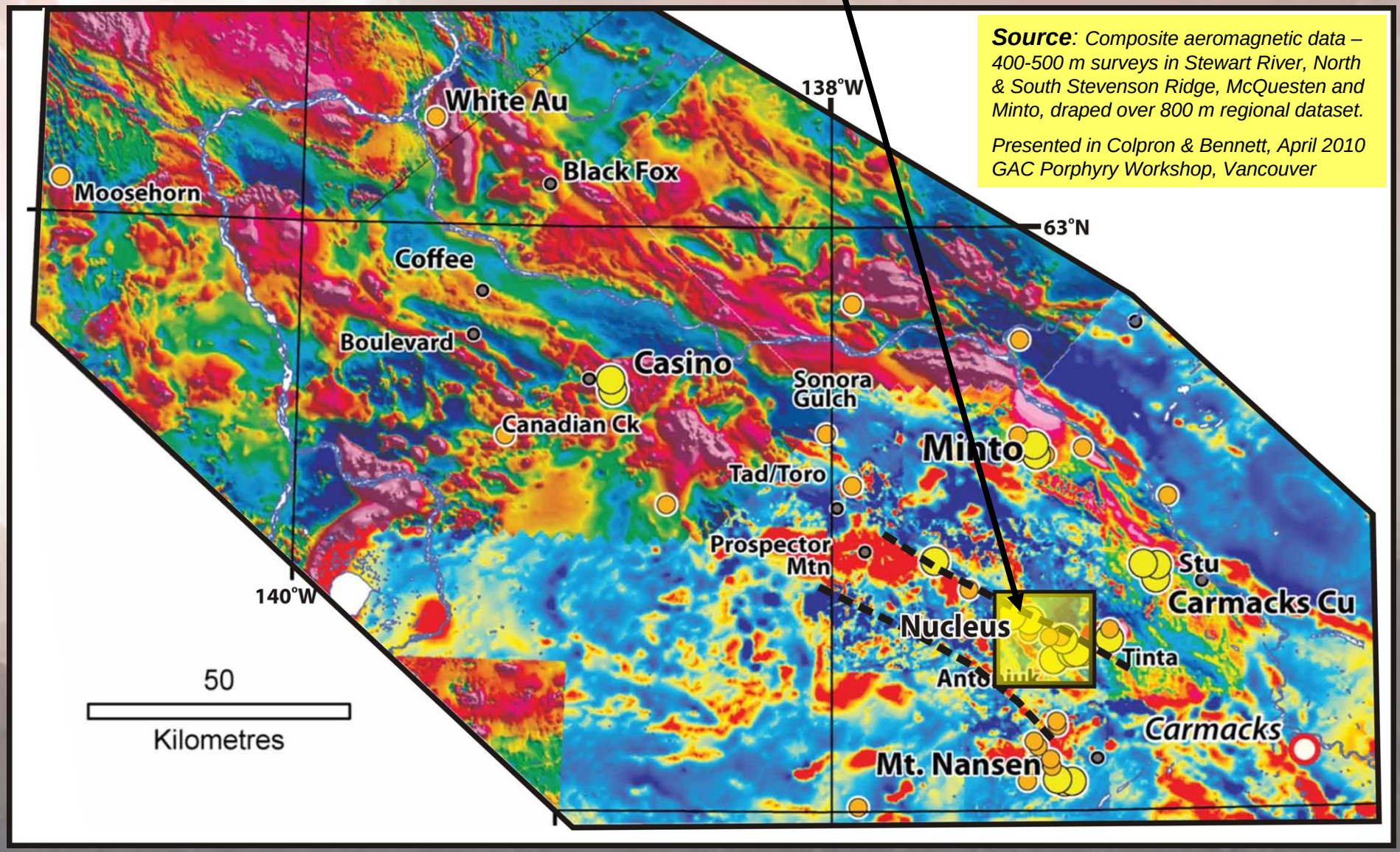
Minor mineralized structures – Golden Saddle

***Source**: Photos reproduced with permission from Kinross Gold*

Minor mineralized structures – Golden Saddle

***Source**: Photos reproduced with permission from Kinross Gold*

Nucleus Deposit, NW-trending, first order structures



***Source**: Composite aeromagnetic data – 400-500 m surveys in Stewart River, North & South Stevenson Ridge, McQuesten and Minto, draped over 800 m regional dataset.*

Presented in Colpron & Bennett, April 2010 GAC Porphyry Workshop, Vancouver

Nucleus Deposit, NW trending, first order and N-trending second order structures

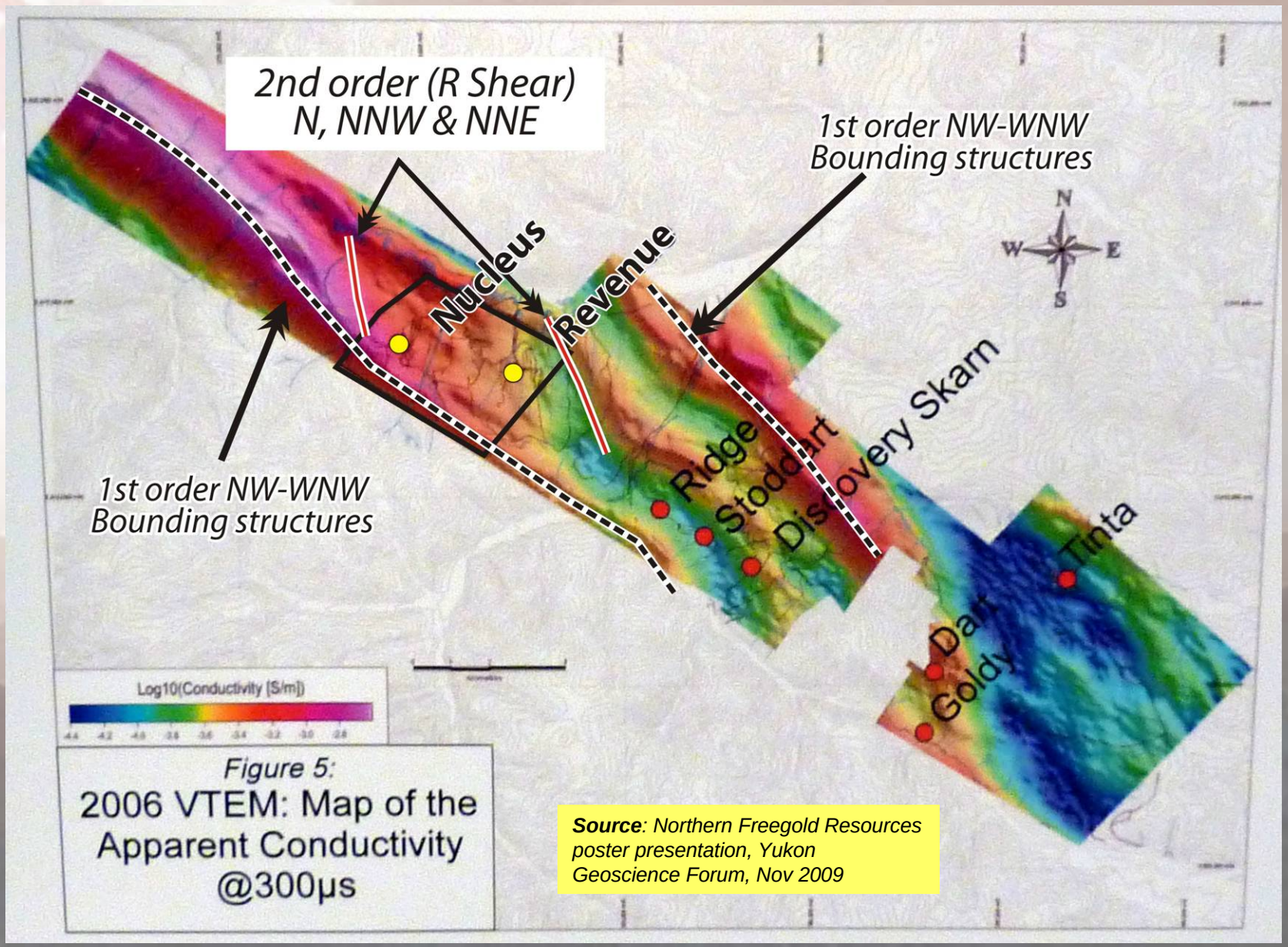
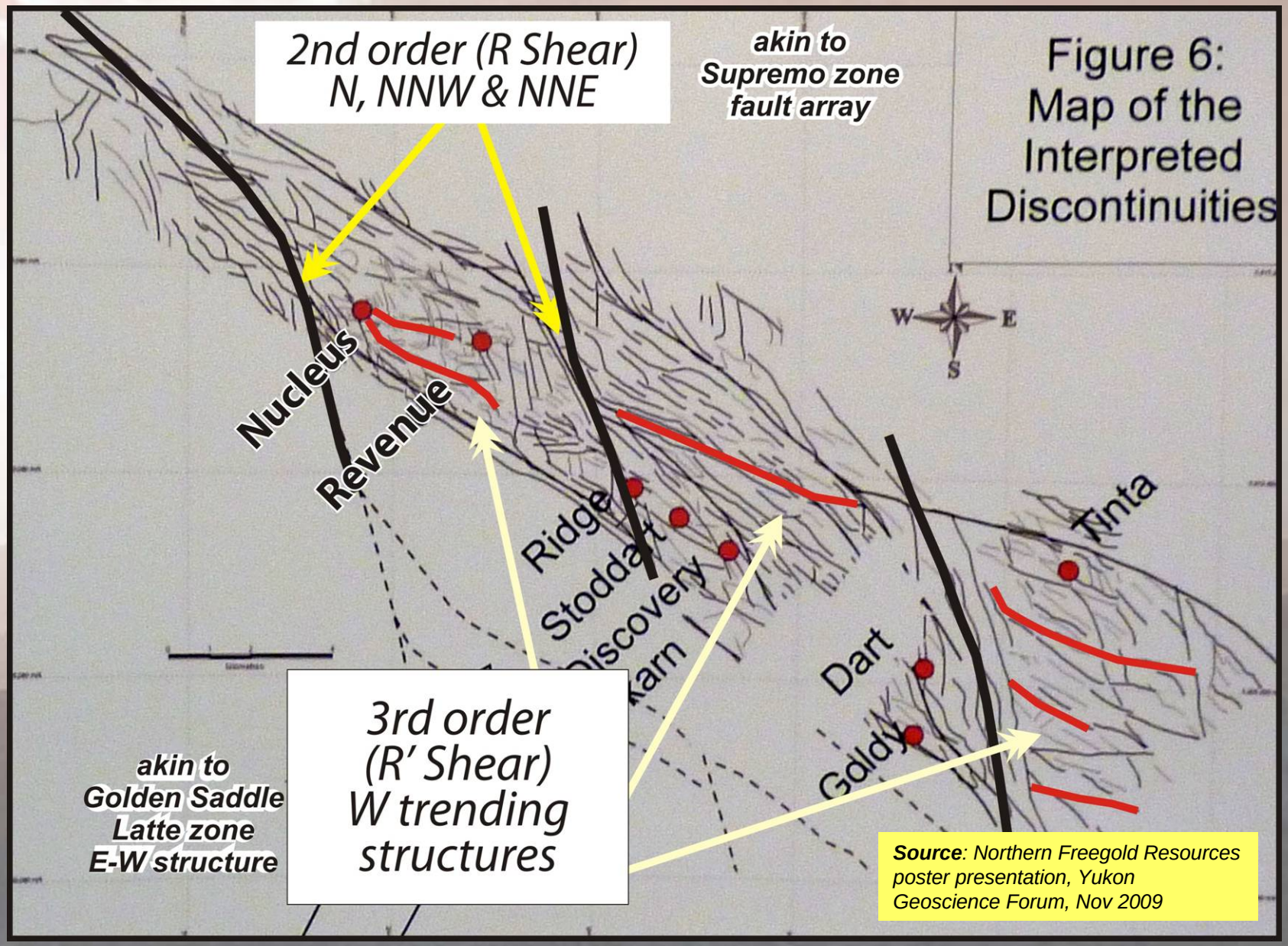


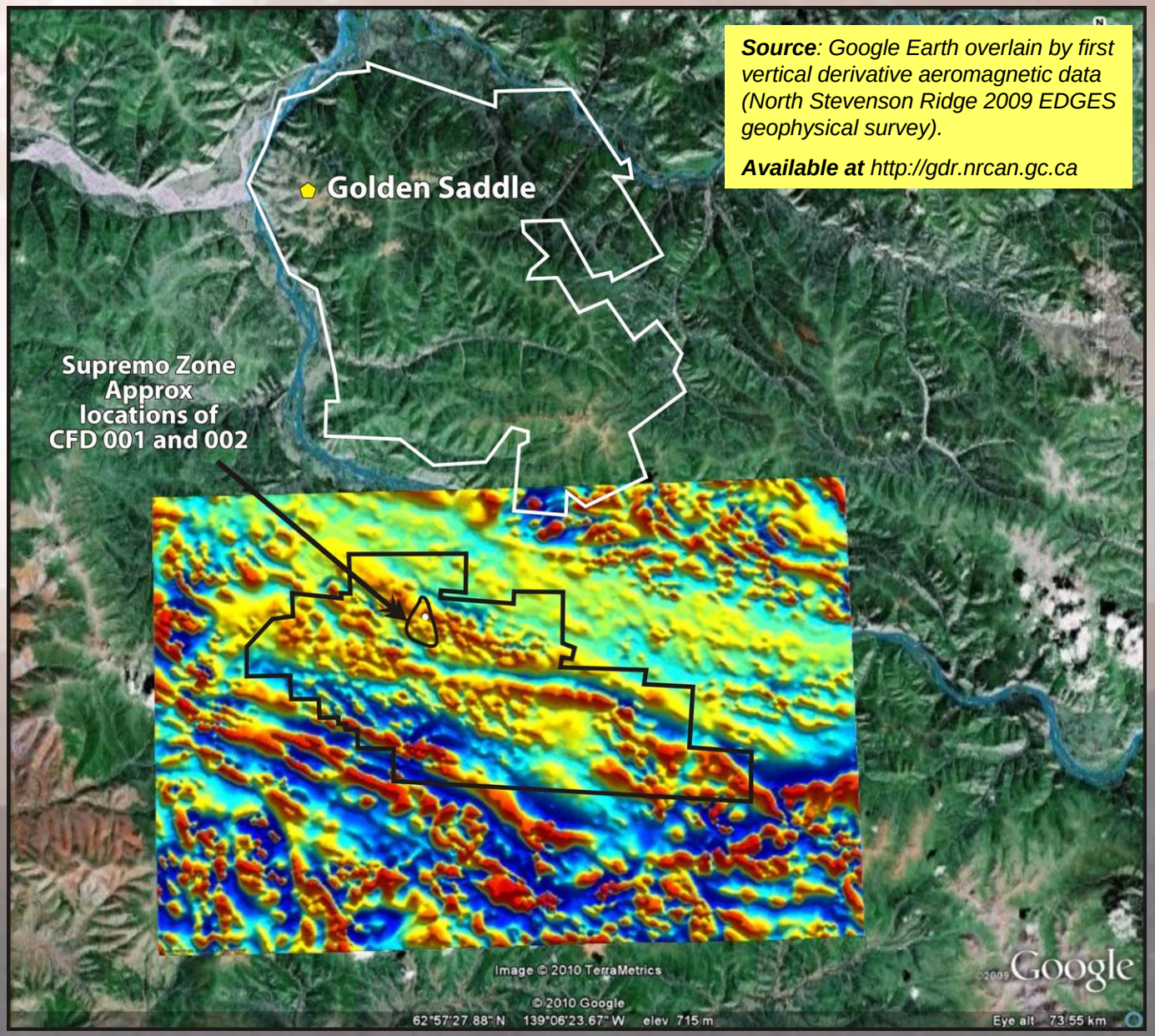
Figure 5:
2006 VTEM: Map of the Apparent Conductivity @300µs

***Source**: Northern Freegold Resources poster presentation, Yukon Geoscience Forum, Nov 2009*

Nucleus Deposit N-NNW and W trending, 2nd and 3rd order structures (mineralizers)



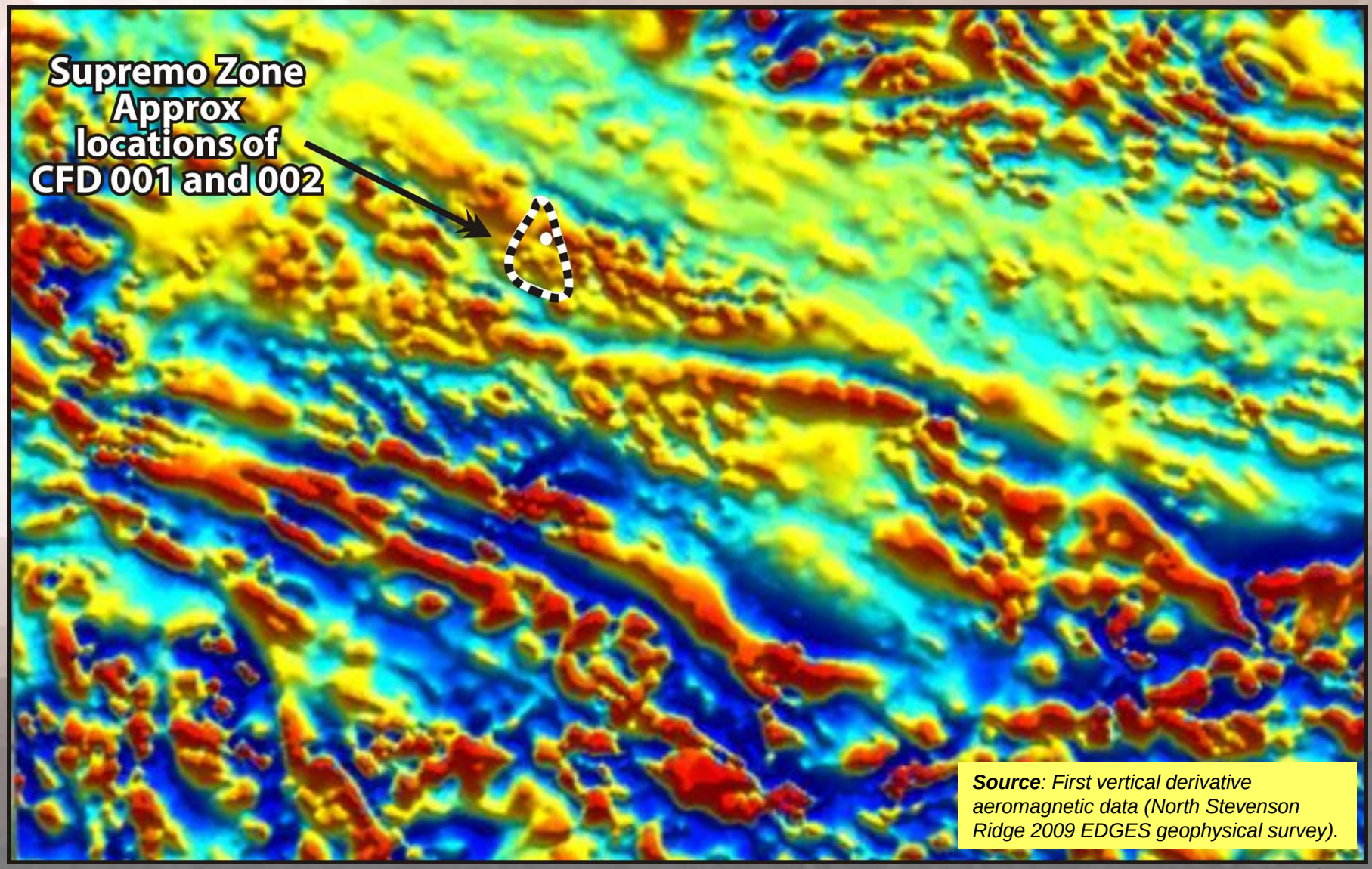
Coffee Property, Dawson Range



***Source**: Google Earth overlain by first vertical derivative aeromagnetic data (North Stevenson Ridge 2009 EDGES geophysical survey).*

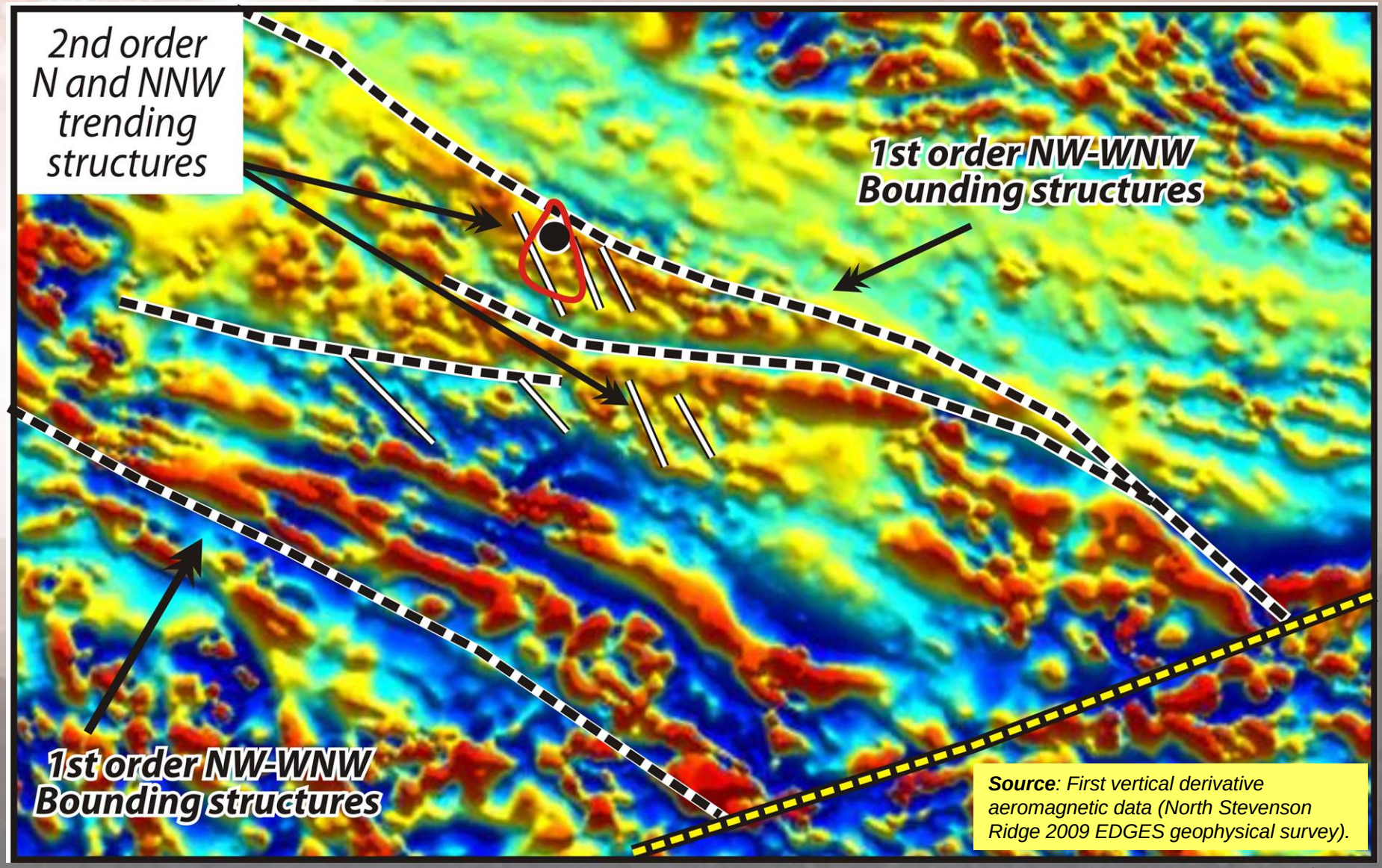
***Available at** http://gdr.nrcan.gc.ca*

Regional GSC Aeromagnetic data highlighting regional structures



***Source**: First vertical derivative aeromagnetic data (North Stevenson Ridge 2009 EDGES geophysical survey).*

Structural interpretation: Coffee Property



Golden Saddle vs Coffee Ore -1

Source:
http://www.kaminak.com/projects/index.php?&content_id=205

June 2010

15.7 m 101_2883
KAM00014 1.24 g/t CFD001

Supremo Zone, Kaminak Gold Corporation

Source: *Photos reproduced with permission from Kinross Gold*

Golden Saddle Zone, Kinross Gold Corporation

Golden Saddle vs Coffee Ore - 2

Source:
http://www.kaminak.com/projects/index.php?&content_id=205

June 2010

19.35 m 101_2891
KAM00018 35.8 g/t CFD001

Supremo Zone, Kaminak Gold Corporation

Source: *Photos reproduced with permission from Kinross Gold*

Golden Saddle Zone, Kinross Gold Corporation

Golden Saddle vs Coffee Ore - 3

Source: http://www.kaminak.com/projects/index.php?&content_id=205

June 2010

29.3 m 101_2906
KAM00033 4.48 g/t
CFD 001

Supremo Zone, Kaminak Gold Corporation

Source: *Photos reproduced with permission from Kinross Gold*

Golden Saddle Zone, Kinross Gold Corporation

Golden Saddle vs Coffee Ore - 4

Source: http://www.kaminak.com/projects/index.php?&content_id=205

June 2010

21.7 m 101_2897 KAM00023 20.6 g/t

Supremo Zone, Kaminak Gold Corporation

Source: *Photos reproduced with permission from Kinross Gold*

Golden Saddle Zone, Kinross Gold Corporation

Golden Saddle vs Coffee Ore - 5

Source: http://www.kaminak.com/projects/index.php?&content_id=205

June 2010

19.85 m 101_2892
KAM00019 14.35 g/t
CFD001

Supremo Zone, Kaminak Gold Corporation

Source: *Photos reproduced with permission from Kinross Gold*

Golden Saddle Zone, Kinross Gold Corporation

Coffee Interpretative Summary