


GEOSCIENCE BC - QUEST - GEOCHEMISTRY - CSIRO SOM ANALYSIS

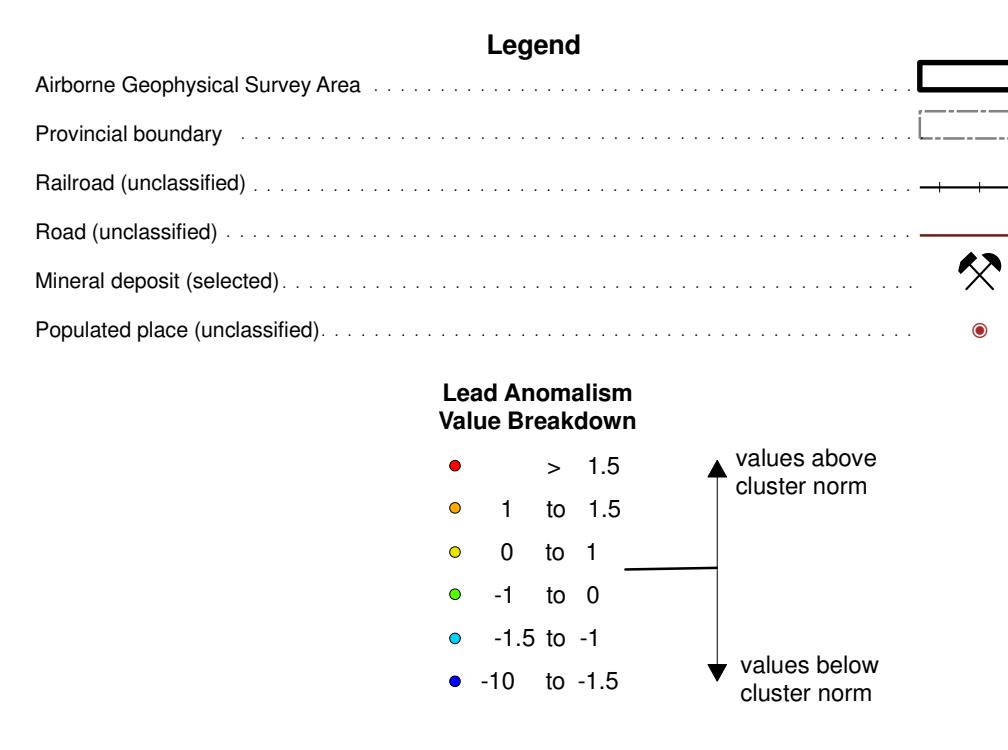
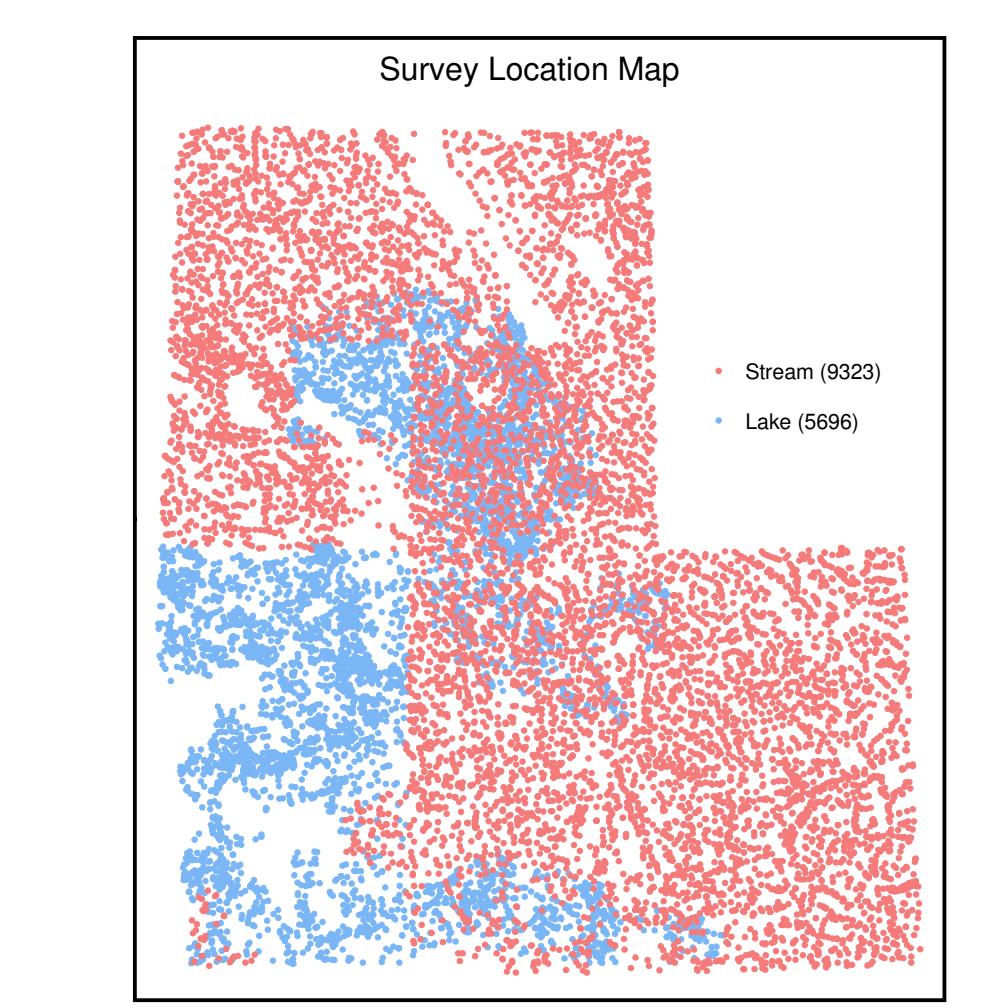


Disclaimer: While every effort has been taken to ensure the accuracy of the information in this map, the data are provided on an "as-is" basis, without any warranty, guarantee or representation of any kind, whether expressed or implied. It is the responsibility of the user to check the facts before entering any financial or other commitment based upon this information.



National Topographic System Index

150I	150H	150G	150F	150E	150D	150C	150B	150A
144A BOWSER SHERIDAN RIVER	144D MCCONNELL RIVER	144C MELVILLE RIVER	144B TRUTH MOUNTAIN	144A CLEAR WATER RIVER	143I CHINAHADA PRairie	143H CLEAR WATER RIVER	143G CHINAHADA PRairie	143F CLEAR WATER RIVER
143P NASS RIVER	143M HADLTON TERACE	143N MACKENZIE RIVER	143K MACKENZIE PASS	143O MACKENZIE CREEK	143T MACKENZIE CREEK	143R MACKENZIE CREEK	143Q MACKENZIE CREEK	143S MACKENZIE CREEK
143B TERACE	143L SMITHERS	143K MACKENZIE PASS	143J FORT FRASER	143U MACKENZIE LAKE	143V MACKENZIE LAKE	143X MACKENZIE LAKE	143Y MACKENZIE LAKE	143Z MACKENZIE LAKE
143H DOUGLAS CHANNEL	143E WHITE LAKE	143F NECHAKO RIVER	143G NECHAKO RIVER	143H NECHAKO RIVER	143I NECHAKO RIVER	143J NECHAKO RIVER	143K NECHAKO RIVER	143L NECHAKO RIVER
143A LUDLOW LAKE	143B COOTEE LAKE	143C COOTEE LAKE	143D COOTEE LAKE	143E COOTEE LAKE	143F COOTEE LAKE	143G COOTEE LAKE	143H COOTEE LAKE	143I COOTEE LAKE
143P QUATSI SOUND	143P RIVERS INLET	143Q MOUNT MACKENZIE	143Q MOUNT MACKENZIE	143R TASOZO LAKE	143R TASOZO LAKE	143S BONAPARTE LAKE	143T SEYMOUR ARM	143U SEYMOUR ARM



QUEST Geochemistry CSIRO SOM Analysis - Cluster-Normalized Element Anomalism

The located and imputed element grids (Barnet and Williams, 2009) were intersected by the sample locations and the values assigned to the sample point. Note, missing element values have been imputed.

The SiroGOM procedure assigns each sample to a best-matching unit (BMU) and samples that are similar tend to be assigned to the same or nearby BMUs. The BMUs are then clustered using K-means to produce 20 classes. Field samples have been coloured according to the cluster they belong to.

"Cluster-Normalized" element anomaly maps have been produced with samples normalized to the mean and standard deviation of the K-means cluster to which a sample's BMU belongs. Users are cautioned that normalization by the K-means cluster mean may make intrinsically small numbers look large. The mean normally only presents a small amount in a set of samples assigned to a cluster, then the normalization process applied here will make the higher values in this well-defined group anomalous.

Data Analysis

Fraser, J.S. and Hodgkinson, J.H. (2009): An Investigation Using SiroGOM for the Analysis of QUEST Stream-Sediment and Lake-Sediment Geochemical Data. September 2009, Geoscience BC, Report 2009-14: CSIRO Exploration and Mining Report 2009/983, 64 p.

Geochemistry Data

Levelled Data

Barnet, C.T. and Williams, P.M. (2009): Using geochemistry and neural networks to map geology under glacial cover, Geoscience BC, Report 2009-3.

Original Data

Jackman, W. (2008): Regional Stream Sediment and Water Geochemical Data, Pine Pass, British Columbia (NTS 82D); Geoscience BC, Report 2008-7.

Jackman, W. (2008): Regional Lake Sediment and Water Geochemical Data, Northern Fraser Basin, Central British Columbia (parts of NTS 93D, H, I, K, N & O); Geoscience BC, Report 2008-8.

Jackman, W. (2008): QUEST Project Sample Reanalysis, Geoscience BC, Report 2008-3.

Jackman, W. (2007): Regional drainage sediment and water geochemical data, South Nechako Basin and Cariboo Basin, central British Columbia (parts of NTS 92A, P, R, RA, R); Geoscience BC, Report 2007-6, 332 p.

Lett, R.E.W. and Bluelin, B. (2006): Re-analysis of regional geochemical survey stream sediment data from the Cariboo and Chilcotin Basins (NTS 93D, BC Ministry of Energy, Mines and Petroleum Resources, Geofile 2006-09, 2006).

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Lett, R.E.W. (2005): Regional Geochemical Survey Database on CD, BC Ministry of Energy, Mines and Petroleum Resources, Geofile 2005-17.

Topographic Data

Massey, N.W.D., MacIntyre, D.G., Desjardins, P.J. and Cooney, R.T. (2005): Digital Geology Map of British Columbia: Whole Province, BC Ministry of Energy and Mines, Geofile 2005-1.

Data Sources

Geoscience BC www.geosciencebc.com

Acknowledgments

Cartography by Fiona Ms, Geoscience BC

Numerical analysis by CSIRO Australia: www.csiro.au

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National Research FLAGSHIPS Minerals Under Northern Development Initiative Trust

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www.geosciencebc.com

MAP 2009-14-30

GEOCHEMISTRY - CSIRO SOM ANALYSIS
Cluster-Normalized Lead Anomalism

QUEST PROJECT

1:500 000 NTS SHEETS 93A,B,C,F,G,H,I,J,K,N,O,P
PART OF 1:250 000 NTS SHEETS 82M; 83D,E,L,M; 84D; 92M,N,O,P; 93D,E,L,M AND 94A,B,C,D

1:500,000
0 5 10 15 20 25 30 35 40 45 50 kms

Universal Transverse Mercator Projection, Zone 10
Horizontal Datum: North American Datum 1983

Mean magnetic declination: 19.2°E, decreasing 1.6° annually. Readings vary from 17.4°E to 20.8°E in the southeast through northwest corner of the map.

September 16, 2009

Citation: Geoscience BC (2009): QUEST Project - Geochemistry - CSIRO SOM Analysis: Cluster-Normalized Lead Anomalism; Geoscience BC, Map 2009-14-30, scale 1:500,000.