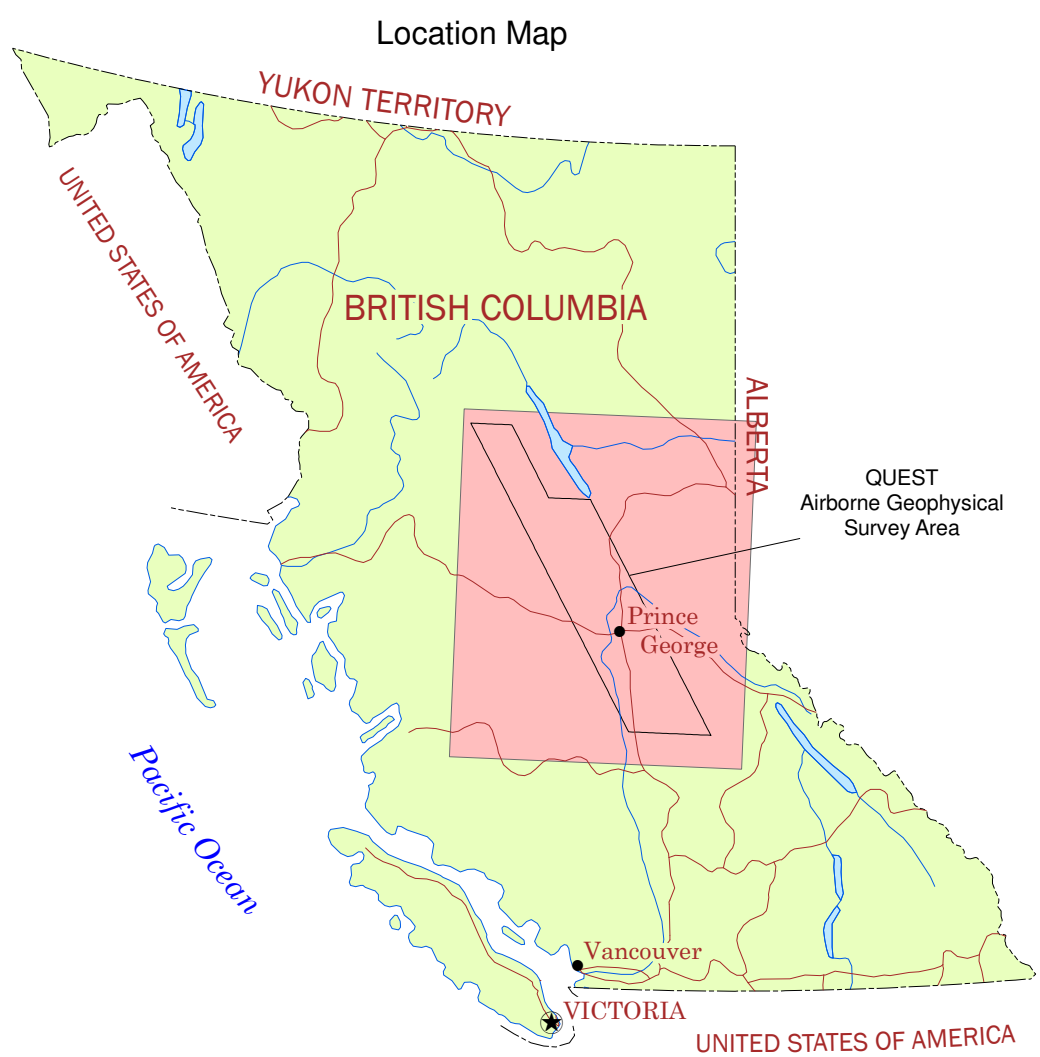
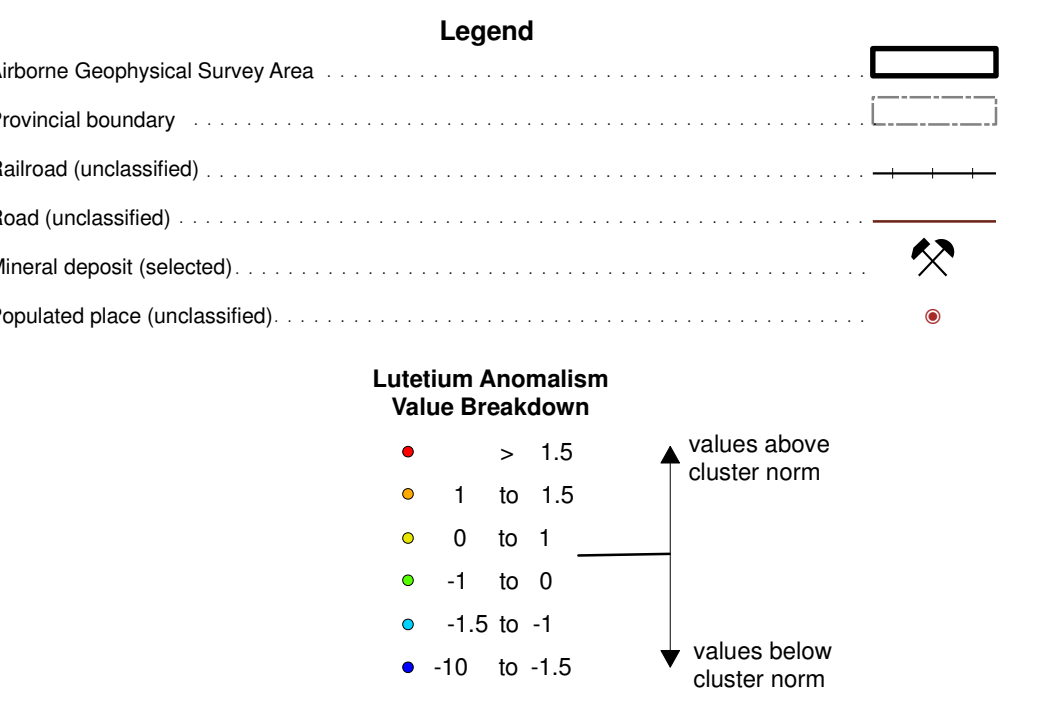
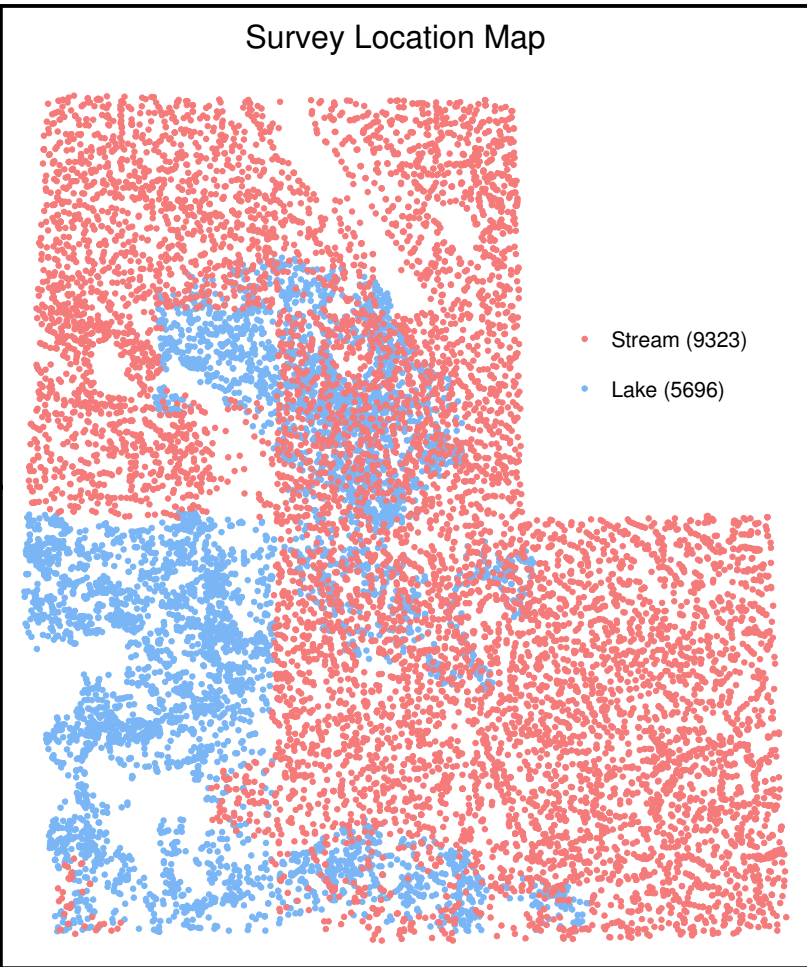


Disclaimer: While every effort has been taken to ensure the accuracy of the information in this map, the data are provided on an "as is" basis, without any warranty, guarantee or representation of any kind, whether expressed or implied. It is the responsibility of the user to check the facts before entering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



National Topographic System Index

18M SPENCER RIVER	08E CANNADONCH RIVER	08F WINE	08G FRITCH	08H SEATTLE RIVER	08I CHICAGO RIVER
18A LAKE	08C MCCONNELL RIVER	08D MCCONNELL RIVER	08E MCCONNELL RIVER	08F MCCONNELL RIVER	08G MCCONNELL RIVER
18P RIVER	08M MCCONNELL RIVER	08N MCCONNELL RIVER	08O MCCONNELL RIVER	08P MCCONNELL RIVER	08Q MCCONNELL RIVER
02R TERRACE	02S JANZEN	02T FRASER	02U MCCONNELL LAKE	02V MCCONNELL PASS	02W MCCONNELL PASS
10R DOUGLAS LAKE	10S WHEATLAND LAKE	10T MCCONNELL RIVER	10U MCCONNELL RIVER	10V MCCONNELL RIVER	10W MCCONNELL RIVER
10A DOUGLAS LAKE	10B DOUGLAS LAKE	10C DOUGLAS LAKE	10D DOUGLAS LAKE	10E DOUGLAS LAKE	10F DOUGLAS LAKE
10P DOUGLAS LAKE	10Q DOUGLAS LAKE	10R DOUGLAS LAKE	10S DOUGLAS LAKE	10T DOUGLAS LAKE	10U DOUGLAS LAKE
10V DOUGLAS LAKE	10W DOUGLAS LAKE	10X DOUGLAS LAKE	10Y DOUGLAS LAKE	10Z DOUGLAS LAKE	10A DOUGLAS LAKE



QUEST Geochemistry CSIRO SOM Analysis - Cluster-Normalized Element Anomalism
The leveled and imputed element grids (Barnett 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 SiroSOM procedure assigns each sample to a best-matching unit (BMU) and samples that are similar tend to be assigned to either the same BMU or nearby BMUs that are close on the self-organized map. To assist with interpretation the SOM-derived BMU "vectors" were analysed using K-means to produce 20 clusters. Field samples have been coloured according to the cluster-assignment of their particular BMU.

"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 anomalous. Specifically, if an element is normally only present in small amounts in a set of samples assigned to a cluster, then the normalization process applied here will make the higher values in this low valued group anomalous.

Data Analysis
Fraser, S.J. and Hodgkinson, J.H. (2009): An Investigation Using SiroSOM for the Analysis of QUEST Stream Sediment and Lake Sediment Geochemical Data. September 2009, Geoscience BC, Report 2009-14. CSIRO Exploration and Mining Report 2009/063, 64 p.

Geochemistry Data
Lavelled Data
Barnett, 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
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Jackman, W. (2008): Regional Lake Sediment and Water Geochemical Data, Northern Fraser Basin, Central British Columbia (parts of NTS 82M, N, O, P, 93A, B); Geoscience BC, Report 2008-5.
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Jackman, W. (2007): Regional drainage sediment and water geochemical data, South Nechako Basin and Cariboo Basin, central British Columbia (parts of NTS 82N, O, P, 93A, B); Geoscience BC, Report 2007-4, 332 p.
Lett, R.E.W. and Blumel, B. (2006): Re-analysis of regional geochemical survey stream sediment samples from the McLeod Lake area (NTS map sheet 093J); BC Ministry of Energy, Mines and Petroleum Resources, Geofiles 2006-09, 220 p.
Jackman, W. (2006): Regional drainage sediment and water geochemical data, Anahim Lake and Nechako River, central British Columbia (NTS 82C & 83F); Geoscience BC, Report 2006-4, 452 p.
Lett, R.E.W. (2005): Regional Geochemical Survey Database on CD, BC Ministry of Energy, Mines and Petroleum Resources, Geofiles 2005-17.

Topographic Data
Massey, N.W.D., Mackenzie, D.G., Desjardins, P.J., and Cooney, R.T. (2005): Digital Geology Map of British Columbia: Whole Province; B.C. Ministry of Energy and Mines, Geofiles 2005-1.

Data Sources
Geoscience BC
www.geosciencebc.com
Ministry of Energy, Mines and Petroleum Resources
www.empr.gov.bc.ca/mining/geoscience

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MAP 2009-14-23

GEOCHEMISTRY - CSIRO SOM ANALYSIS

Cluster-Normalized Lutetium Anomalism

QUEST PROJECT

1:250 000 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 km
Universal Transverse Mercator Projection, Zone 10
Horizontal Datum: North American Datum 1983
Mean magnetic declination 2009: 10°18' E, decreasing 1.6° annually. Readings vary from 17°42' E in the southeast corner to 20°14' E in the northwest corner of the map.
September 16, 2009

Citation:
Geoscience BC (2009): QUEST Project - Geochemistry - CSIRO SOM Analysis: Cluster-Normalized Lutetium Anomalism; Geoscience BC, Map 2009-14-23, scale 1:500,000.