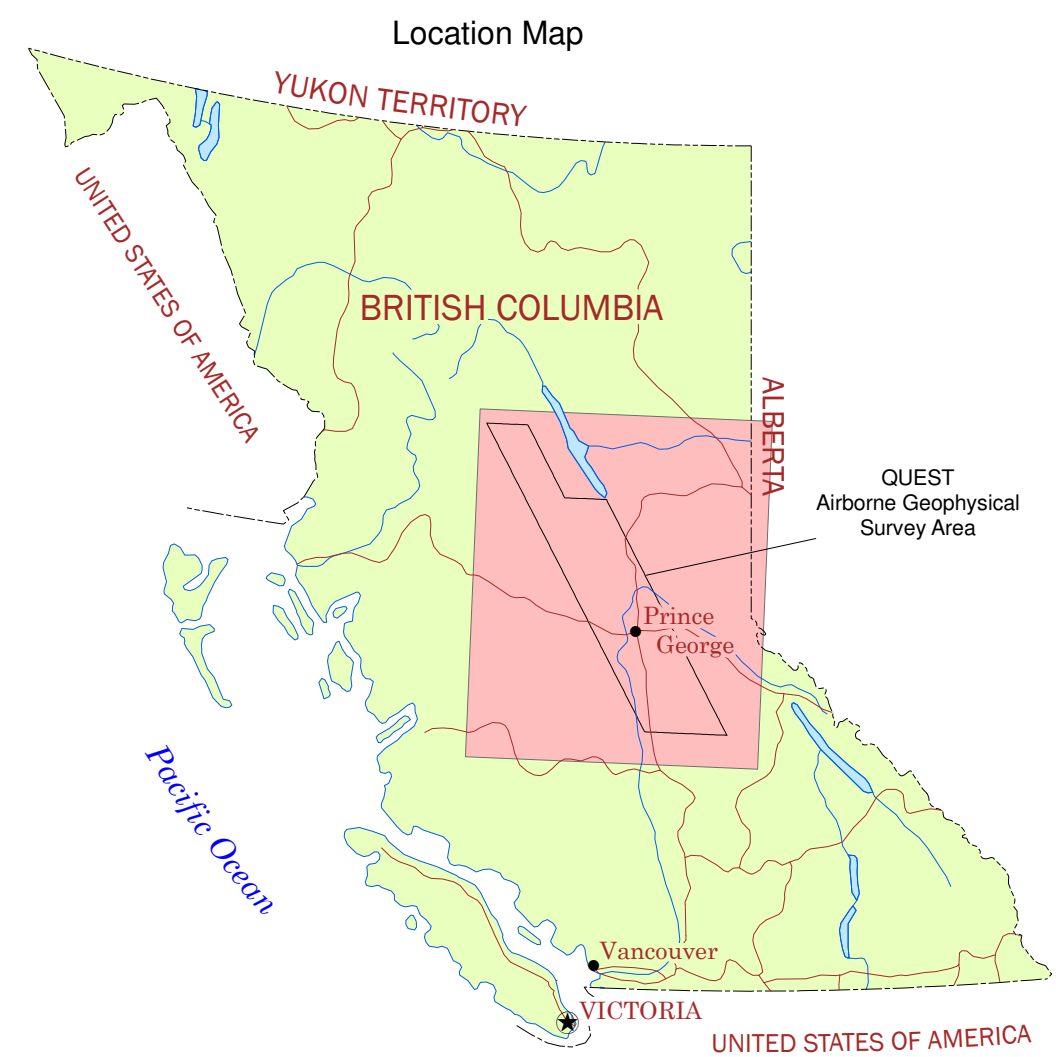
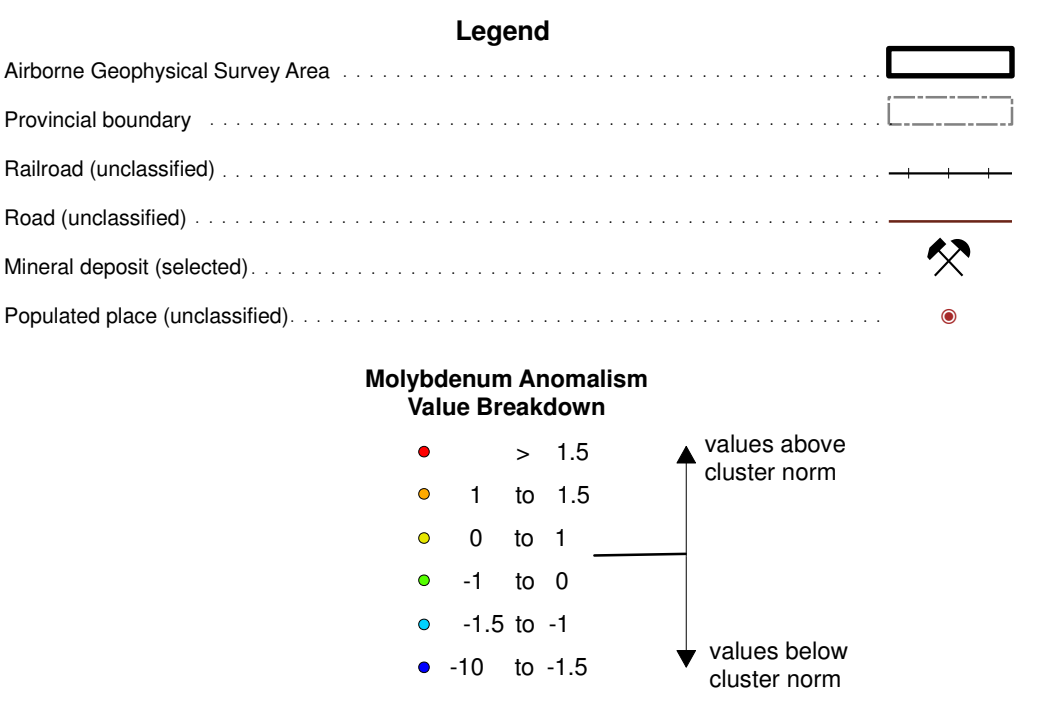
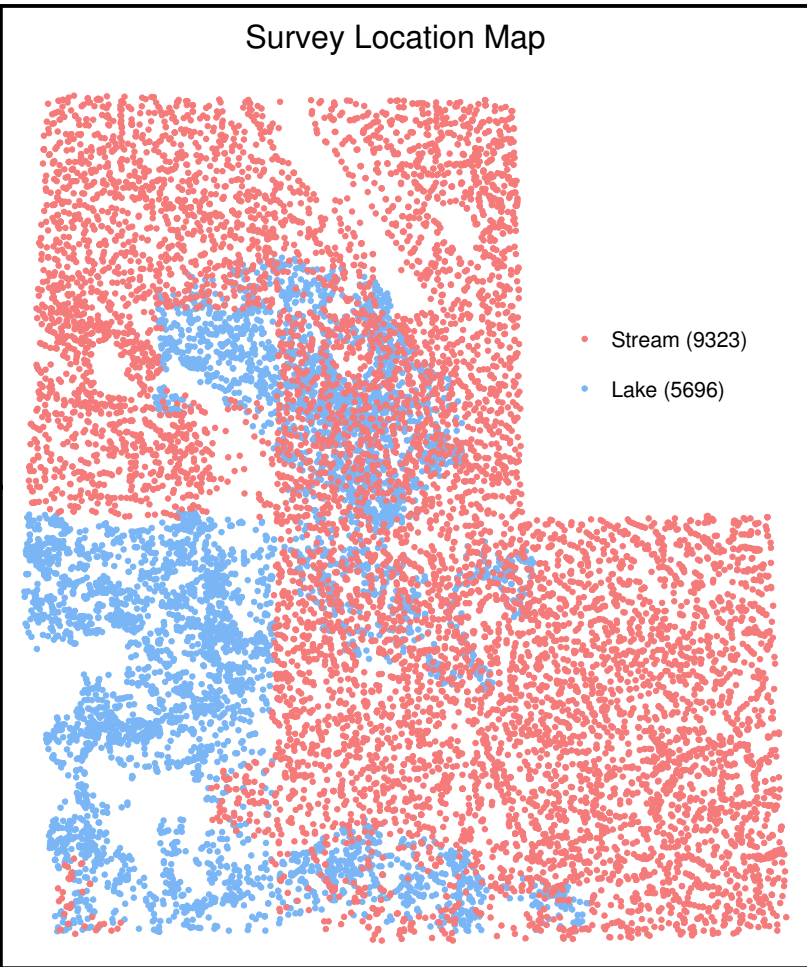


Disclaimer: While every effort has been taken to ensure the accuracy of the information in this map, the data are provided on an "as is" basis, without any warranty, guarantee or representation of any kind, whether expressed or implied. It is the responsibility of the user to check the facts before entering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



National Topographic System Index

18M SPENCER RIVER	08E CANNONICUM RIVER	08F WINE RIVER	08G TRUTH RIVER	08H SEATTLE RIVER	08I CHICAGO RIVER
18A LAKE	08C MCCORMICK RIVER	08D MCCORMICK RIVER	08E MCCORMICK RIVER	08F MCCORMICK RIVER	08G MCCORMICK RIVER
18P RIVER	08M MCCORMICK RIVER	08N MCCORMICK RIVER	08O MCCORMICK RIVER	08P MCCORMICK RIVER	08Q MCCORMICK RIVER
02E TERRACE	02F TERRACE	02G TERRACE	02H TERRACE	02I TERRACE	02J TERRACE
12M TERRACE	02K TERRACE	02L TERRACE	02M TERRACE	02N TERRACE	02O TERRACE
12P TERRACE	02P TERRACE	02Q TERRACE	02R TERRACE	02S TERRACE	02T TERRACE
12U TERRACE	02U TERRACE	02V TERRACE	02W TERRACE	02X TERRACE	02Y TERRACE
12Z TERRACE	02Z TERRACE	03A TERRACE	03B TERRACE	03C TERRACE	03D TERRACE
03E TERRACE	03F TERRACE	03G TERRACE	03H TERRACE	03I TERRACE	03J TERRACE
03K TERRACE	03L TERRACE	03M TERRACE	03N TERRACE	03O TERRACE	03P TERRACE
03Q TERRACE	03R TERRACE	03S TERRACE	03T TERRACE	03U TERRACE	03V TERRACE
03W TERRACE	03X TERRACE	03Y TERRACE	03Z TERRACE	04A TERRACE	04B TERRACE
04C TERRACE	04D TERRACE	04E TERRACE	04F TERRACE	04G TERRACE	04H TERRACE
04I TERRACE	04J TERRACE	04K TERRACE	04L TERRACE	04M TERRACE	04N TERRACE
04O TERRACE	04P TERRACE	04Q TERRACE	04R TERRACE	04S TERRACE	04T TERRACE
04U TERRACE	04V TERRACE	04W TERRACE	04X TERRACE	04Y TERRACE	04Z TERRACE



QUEST Geochemistry CSIRO SOM Analysis - Cluster-Normalized Element Anomalism

The levelled 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 classes. 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 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., (2006) 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 2009/983, 64 p.

Geochimistry Data

Levelled 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

Jackman, W. (2008). Regional Stream Sediment and Water Geochemical Data, Pine Pass, British Columbia (NTS 920); Geoscience BC, Report 2008-7.

Jackman, W. (2008). Regional Lake Sediment and Water Geochemical Data, Northern Fraser Basin, Central British Columbia (parts of NTS 920, 930, 940, 950, 960, 970, 980, 990); 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 920, 930, 940, 950, 960, 970, 980, 990); BC Ministry of Energy, Mines and Petroleum Resources, Geofiles 2006-09, 220p.

Letti, R.E.W. and Blumel, B. (2006). Re-analysis of regional geochemical survey stream sediment samples from the McLeod Lake area (NTS map sheet 830J); BC Ministry of Energy, Mines and Petroleum Resources, Geofiles 2006-09, 220p.

Jackman, W. (2006). Regional drainage sediment and water geochemical data, Anahim Lake and Nechako River, central British Columbia (NTS 850A & 851); Geoscience BC, Report 2006-4, 452p.

Letti, 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., MacIntyre, D.G., Desjardins, P.J. and Cooney, R.T. (2005). Digital Elevation 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.enr.gov.bc.ca/mining/geoscience

Acknowledgments

Cartography by Fiona Ma, Geoscience BC

Numerical analysis by CSIRO, Australia - www.csiro.au

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MAP 2009-14-26
GEOCHEMISTRY - CSIRO SOM ANALYSIS
Cluster Normalized Molybdenum 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 kms
Universal Transverse Mercator Projection, Zone 10
Horizontal Datum: North American Datum 1983
Mean magnetic declination 2009, 19° 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 Molybdenum Anomalism; Geoscience BC, Map 2009-14-26, scale 1 : 500,000.