



QUEST-WEST PROJECT SAMPLE REANALYSIS

Geoscience BC Report 2009-05

Date: January 2009

File: GBC Report 2009-05.PDF

PROJECT SUMMARY

As part of Geoscience BC's QUEST-West Project, a selection of archived drainage sediment samples have been reanalyzed by inductively coupled plasma mass spectrometry (ICP-MS). This technique provides a wide range of new analytical information at improved detection levels plus greater data compatibility with analytical methods currently being employed (Jackaman *et al.*, 2009).

Geoscience BC Report 2009-05 includes ICP-MS results for a total of 3479 stream and lake sediment samples that cover parts of NTS map sheets 93E, F, L, and M. (Table 1 and Figure 1). These government-funded surveys were originally conducted from 1983 to 1996 (Lett, 2005).

It should be noted that although efforts have been made to include samples from the target survey areas, there are gaps in the final data set due to missing sample material. Samples from the south portion of map sheet 93E, located in Tweedsmuir Park, were deliberately not included.

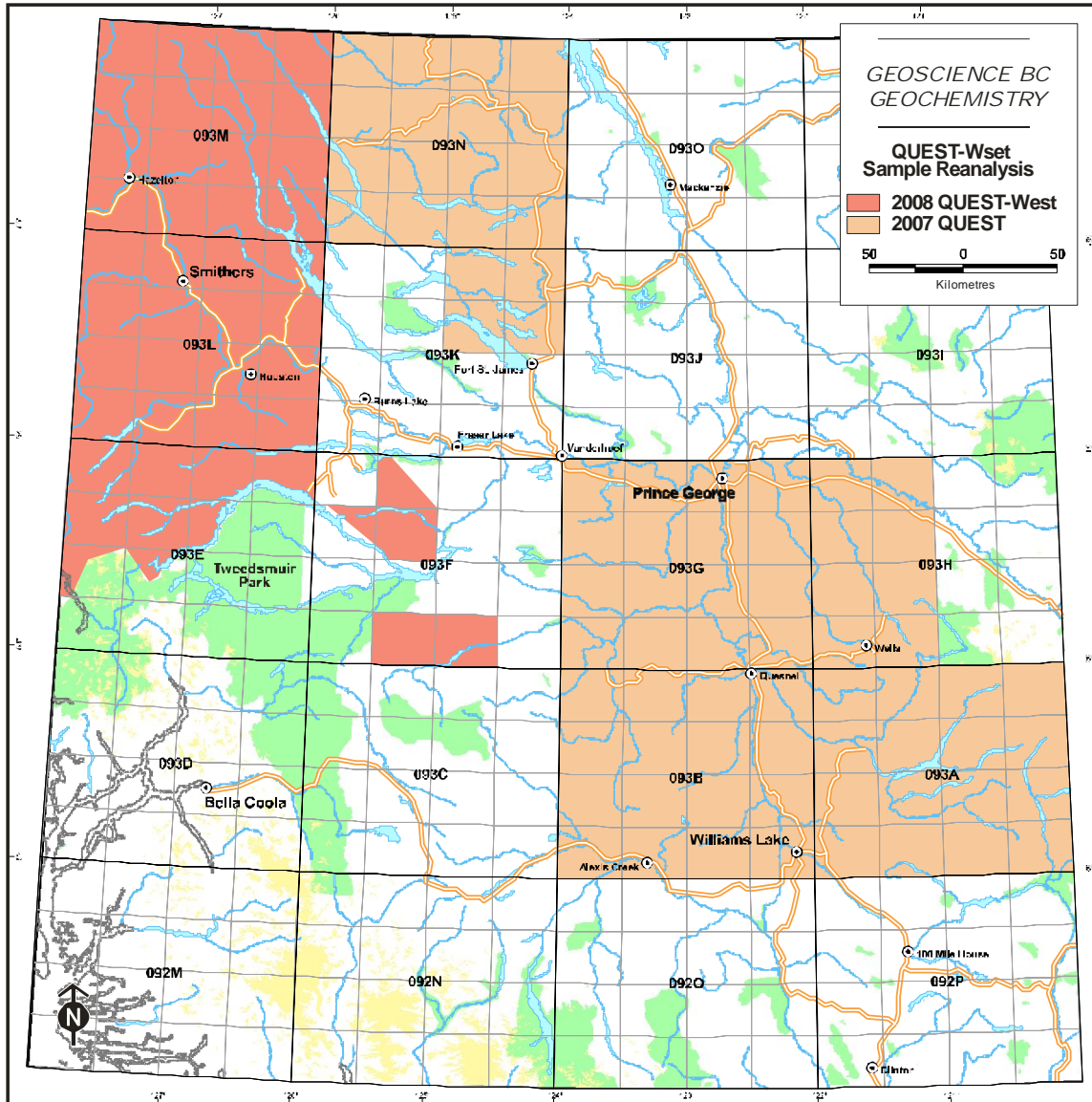
The project was funded by Geoscience BC and managed by W. Jackaman in cooperation with P. Friske and M. McCurdy of NRCan, and D. Lefebure and R. Lett of the BCGS.

Table 1. Summary of QUEST-West Project reanalysis target areas.

Survey Year	Map Area	Survey Type	NTS Map	Agency	Total Samples
1983	Hazelton	stream survey	93M	BCGS/GSC	1099
1986	Whitesail Lake	stream/lake survey	93E	BCGS/GSC	1177
1986	Smithers	stream/lake survey	93L	BCGS/GSC	1157
1993	Nechako	lake survey	093F	BCGS	352
1996	Babine	lake survey	093L/M	BCGS/GSC	489

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Figure 1. Map showing the location of QUEST-West Project reanalysis target areas.



REFERENCES

- Jackaman, W., Balfour, J.S. and Reichheld, S.A. (2009): QUEST-West Project geochemistry: field survey and data reanalysis (parts of NTS 093E, F, J, K, L, M, N), central British Columbia; *in* Geoscience BC Summary of Activities 2008, Geoscience BC, Report 2009-1.
- Lett, R.E.W. (2005): Regional Geochemical Survey Database on CD, *BC Ministry of Energy, Mines and Petroleum Resources*, Geofile 2005-17.
<http://www.empr.gov.bc.ca/Mining/Geoscience/Geochemistry/Pages/default.aspx>
- Nick Massey, B.C. Ministry of Energy & Mines, Geological Survey Branch, Victoria,
Publication Date: January 2005.
<http://www.empr.gov.bc.ca/Mining/Geoscience/PublicationsCatalogue/DigitalGeologyMaps/Pages/default.aspx>

DATA FILE FORMAT

Data is provided as an XLS file.

SAMPLE SITE LOCATION DATA and DESCRIPTIONS

Field	Label	Type	Length	Example
1	MASTERID	CHAR	20	STRM93E801002
2	TYPE	CHAR	4	SS
3	MAP50	CHAR	6	93E/05
4	MAP20	CHAR	8	093E.021
5	YEAR	NUM	6	1980
6	ID	CHAR	10	1002
7	STATUS	NUM	2	0
8	UTMZ	NUM	2	10
9	UTME83	NUM	6	574409
10	UTMN83	NUM	7	5794322
11	LAT	NUM	10(5)	52.29421
12	LONG	NUM	10(5)	-121.90894
13	STRAT	CHAR	8	MTrCc
14	REPORT	CHAR	25	GBC REPORT
15	LAB	CHAR	20	ACME
16	MTHD	CHAR	6	ICPMS

Explanation of Codes

MASTERID: Unique ID number listed for each data record. Consists of survey type, NTS map sheet designation, collection year, and sample ID number.

TYPE: Type of regional survey: SS – Stream Survey LS – Lake Survey

MAP50: National Topographic System (NTS) 1:50,000 scale map.

MAP20: National Topographic System (NTS) 1:20,000 scale map.

YEAR: Year sample was collected.

ID: Original sample site ID.

STATUS: Identifies the collection of multiple samples from a single site.

UTMZ: Site location UTM zone.

UTME83: Site location UTM easting (NAD83).

UTMN83: Site location UTM northing (NAD83).

LAT: Latitude (decimal degrees) calculated from NAD83 UTM coordinates.

LONG: Longitude (decimal degrees) calculated from NAD83 UTM coordinates.

STRAT: Underlying geology at sample site (field STRAT1 from Massey, 2005).

REPORT: Report designation of published data.

LAB: Analytical laboratory conducting listed analysis.

MTHD: Primary analytical method used.
ICPMS - Inductively coupled plasma mass spectrometry.

ANALYTICAL DATA

The following table lists detection limits for analytical information included as part of this data release. Please note that analytical data are provided in its original reported state. Data determined at less than detection are listed as negative values. Cells containing missing data have been left blank.

Field	Element		DL		Units	Method
			Lower	Upper		
17	Gold	Au	0.2	100	ppb	ICPMS
18	Silver	Ag	2	100	ppb	ICPMS
19	Aluminum	Al	0.01	10	%	ICPMS
20	Arsenic	As	0.1	10000	ppm	ICPMS
21	Barium	Ba	0.5	10000	ppm	ICPMS
22	Bismuth	Bi	0.02	2000	ppm	ICPMS
23	Calcium	Ca	0.01	40	%	ICPMS
24	Cadmium	Cd	0.01	2000	ppm	ICPMS
25	Cobalt	Co	0.1	2000	ppm	ICPMS
26	Chromium	Cr	0.5	10000	ppm	ICPMS
27	Copper	Cu	0.01	10000	ppm	ICPMS
28	Iron	Fe	0.01	40	%	ICPMS
29	Gallium	Ga	0.1	1000	ppm	ICPMS
30	Mercury	Hg	5	100	ppb	ICPMS
31	Potassium	K	0.01	10	%	ICPMS
32	Lanthanum	La	0.5	10000	ppm	ICPMS
33	Magnesium	Mg	0.01	30	%	ICPMS
34	Manganese	Mn	1	10000	ppm	ICPMS
35	Molybdenum	Mo	0.01	2000	ppm	ICPMS
36	Sodium	Na	0.001	10	%	ICPMS
37	Nickel	Ni	0.1	10000	ppm	ICPMS
38	Phosphorus	P	0.001	5	%	ICPMS
39	Lead	Pb	0.01	10000	ppm	ICPMS
40	Sulphur	S	0.02	10	%	ICPMS
41	Antimony	Sb	0.02	2000	ppm	ICPMS
42	Scandium	Sc	0.1	100	ppm	ICPMS
43	Selenium	Se	0.1	100	ppm	ICPMS
44	Strontium	Sr	0.5	10000	ppm	ICPMS
45	Tellurium	Te	0.02	1000	ppm	ICPMS
46	Thorium	Th	0.1	2000	ppm	ICPMS
47	Titanium	Ti	0.001	10	%	ICPMS
48	Thallium	Tl	0.02	1000	ppm	ICPMS
49	Uranium	U	0.1	2000	ppm	ICPMS
50	Vanadium	V	2	10000	ppm	ICPMS
51	Tungsten	W	0.1	100	ppm	ICPMS
52	Zinc	Zn	0.1	10000	ppm	ICPMS

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