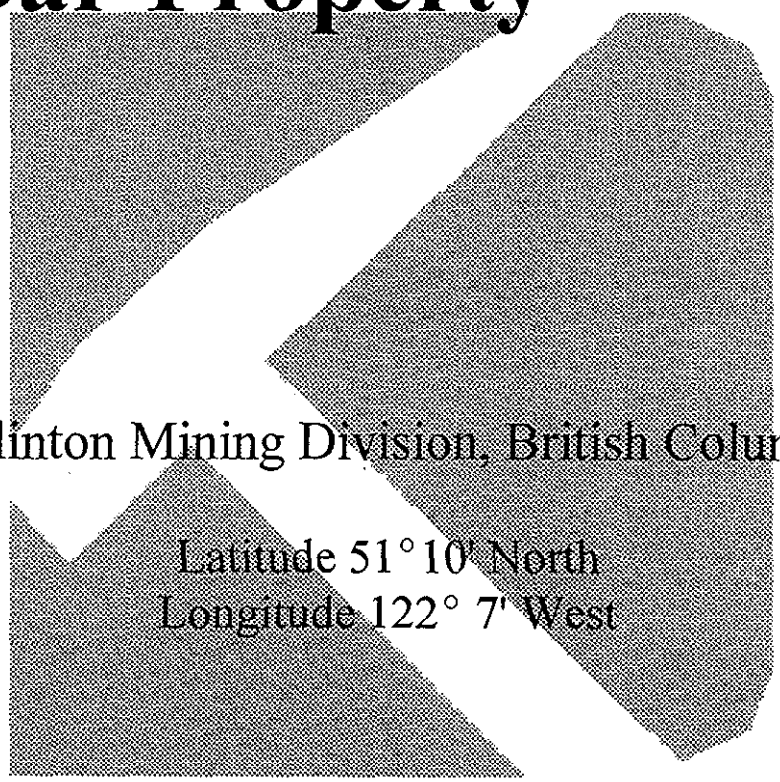
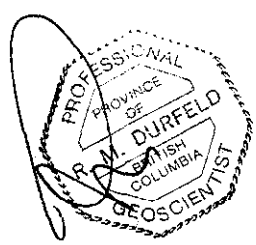
Geological and Geochemical Report on the Big Bar Property



Clinton Mining Division, British Columbia

Latitude 51° 10' North
Longitude 122° 7' West



by:
Rudolf M. Durfeld, B.Sc., P.Geo.
August 1998.

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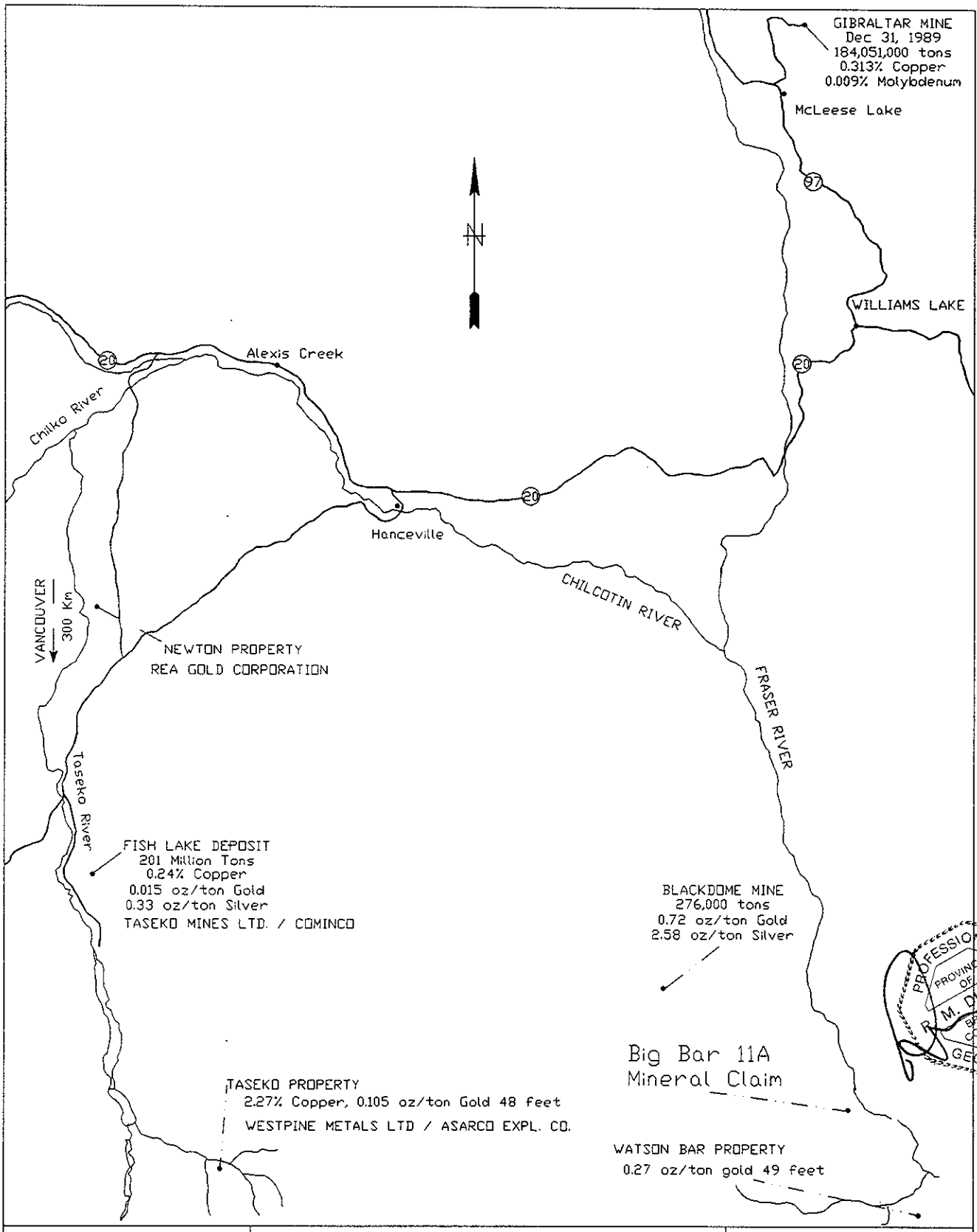


SCALE 1:750,000
5 0 5 10 15 km

BIG BAR 11A MINERAL CLAIM
LOCATION MAP

NTS 92 O/13E
Figure 1A

A.) INTRODUCTION

1) Location

The Big Bar Property, comprised of the Big Bar 11A mineral claim in the Clinton Mining Division, is located west of the Fraser River, 39 kilometres at 280 degrees from Clinton. More precisely, the property is located at 51 degrees and 10 minutes north latitude and 122 degrees and 7 minutes west longitude. (National Topographic System Map 920/1E)

2) Access and Physiography

Access to the property is from Clinton to the Big Bar Ferry via all weather gravel roads by Kelly Lake or Big Bar Lake. The Big Bar Reaction Ferry crosses the Fraser River to the west side. On the west side of the river, the road continues to the southwest and crosses the property after approximately 1 kilometre from the ferry.

The terrain of the property is characterized by ravines and plateaus in the Fraser River Canyon from a maximum elevation of 3000 feet above sea level to the river bed at 900 feet above sea level.

The vegetation on the Big Bar Property is characterized as arid grassland. The lower elevations are predominantly covered with sage that gives way to sparse pine forest at the higher elevations.

3) Ownership

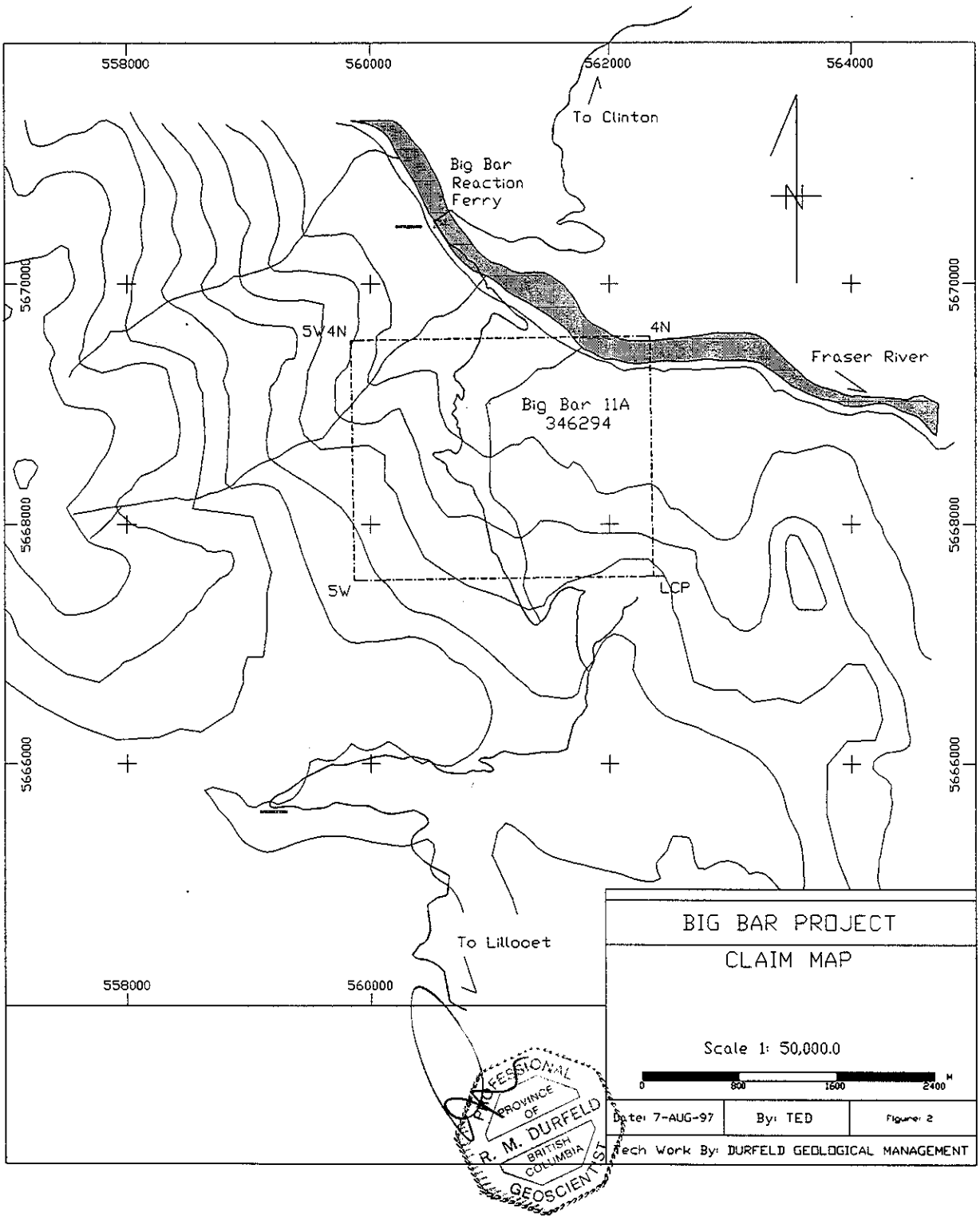
The Big Bar Property, comprised of the Big Bar 11A mineral claim, totals 20 claim units and covers 500 hectares. The status of the claim is summarized below and the relative claim location is plotted as figure 2.

Claim Name	Number of Units	Tenure Number	Record Date	Year of Expiry
Big Bar 11A	20	346294	May 30, 1996	1999

The Year of Expiry reflects the Statement of Work filed on May 29, 1998 the work for which is documented in this report. Stephen G. Lehman is the registered owner of the Big Bar 11A mineral claim.

4) Work Program

The objective of the 98 program was to establish better control with additional GPS and use this control to compile the previous work. To this end additional GPS surveying was conducted and all available assessment reports were reviewed.


558000
560000
562000
564000
To Clinton
Big Bar
Reaction
Ferry
5670000
5668000
5666000
5W4N
4N
Fraser River
Big Bar 11A
346294
5W
LCP
To Lillooet
BIG BAR PROJECT
CLAIM MAP
Scale 1: 50,000.0
0
800
1600
2400
M
Date: 7-AUG-97
By: TED
Figure: 2
Tech Work By: DURFELD GEOLOGICAL MANAGEMENT
PROFESSIONAL
PROVINCE OF
R. M. DURFELD
BRITISH COLUMBIA
GEOSCIENTIST

Five rock samples were collected for analysis. Two of the rock samples were submitted to Kamloops Geological Services Ltd. for thin section examination.

B.) BASE MAP DEVELOPMENT

The base map has been developed using a differential global positioning system survey. A GPS survey has an accuracy of 1 to 5 metres when differentially corrected. The survey was performed by transporting the GPS unit on foot or on the truck and included the location of control points on the previous grid. The data that was collected in the field was then corrected in the office using base station data from Williams Lake. GPS Survey procedures are given as Appendix IV.

Maps were subsequently produced at several scales to assist in the compilation of the old data.

C.) ROCK GEOCHEMICAL SURVEYS

1) Geochemical Sample Collection and Analyses

Five rock samples were collected at 100 metre intervals on a traverse down the face of the alteration zone, labelled with pre-numbered assay tags and placed in plastic sample bags. The sample locations are plotted on the attached geology plan (Figure 3).

The samples were shipped to Min-En Laboratories at 8282 Sherbrooke Street in Vancouver. At the Min-En Laboratory, the rock samples were crushed and pulverized. All samples were the digested and pulverized for 30 element ICP and gold by atomic absorption. The detailed description of the analytical procedures employed at Min-En Laboratories, as well as the geochemical results for the rock samples, are included as Appendix III of this report.

2) Geochemical Results

Although none of the rock samples were anomalous in gold, one (294406) was strongly anomalous in mercury (1345 ppb) and arsenic (210 ppm).

D.) GEOLOGY

The attached Geology Plan (Figure 3) compiles previous geological mapping in the area with recent traverses by the author.

The property is underlain by a section of Eocene Age felsic to intermediate volcanic and intercalated sedimentary rocks.

The Eocene rocks in the property area are represented by a succession of Felsic to Rhyolitic flows **(2),** and Andesitic flows **(3)**, interlayered with rhyolitic tuffs, agglomerates and clastics **(4)**. To

the west of Reynolds Creek a section of brown to maroon dacite **(5)** and breccia **(5a)** dominate.

1.) Alteration

A strong, white weathering, in part silicified, alteration zone is mapped on an east-west trend. The five 1998 rock samples were collected from this zone. Hand specimens from samples 294402 and 294403 were sent to Kamloops Geological Services Ltd for Thin Section descriptions. The detailed descriptions by Mr. Ron Wells, P.Geo. are given as Appendix IV. Mr. Wells describes the samples as altered (silicified, chlorite and carbonate) lapilli tuffs. Just below this alteration zone Cyprus' work showed a series of rock samples anomalous in gold (up to 1650 ppb) arsenic (up to 9375 ppm) and antimony (up to 2120 ppm).

To the west of Reynolds Creek, the Kerr Zone, a shallow dipping quartz-carbonate vein zone that was the focus of previous drill programs. Assays from percussion drilling gave an intersection in hole 80-15 of 3550 ppb over 6 metres. This drilling, diamond drilling and trenching have traced this zone over a 350 metre by 350 metre area.

E.) DISCUSSION

The Big Bar property is underlain by Eocene volcanic and clastic rocks. Work to date has identified the quartz-carbonate Kerr vein zone with strongly anomalous gold, mercury and arsenic values. This zone is open to the north and west.

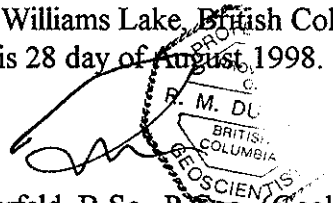
The broad east-west silicified,.chlorite alteration zone to the south of Reynolds Creek may have epithermal gold potential. This is supported by the associated strong mercury, arsenic and isolated gold values. Compilation has shown these results to represent limited rock sampling. More detailed mapping and sampling of this large alteration zone will define its full potential of hosting an economic epithermal gold deposit.

APPENDIX I

Itemized Cost Statement

Technical Staff	
R.M. Durfeld (1 day @ $400)	$ 400.00
GPS Consultant	
T.E. Durfeld (1 day @ $350)	$ 350.00
Truck Rental	
(1 day @ $60)`	$ 60.00
Geochemical Analyses	$ 183.29
Petrographic Examination	
Kamloops Geological Services Ltd.	$ 485.10
Report Preparation and Drafting	$ 500.00
TOTAL COST OF PROGRAM	**$1,978.39**

Dated at Williams Lake, British Columbia
this 28 day of August, 1998.



R.M. Durfeld, B.Sc., P.Geo. (Geologist)

DÜRFELD GEOLOGICAL
MANAGEMENT LTD.

APPENDIX II

Statement of Qualifications

I, Rudolf M. Durfeld, do hereby certify:

1.) That I am a consulting geologist with offices at 1725 Signal Point Road, Williams Lake, BC.

2.) That I am a graduate of the University of British Columbia, B.Sc. Geology 1972, and have practiced my profession with various mining and/or exploration companies and as an independent geologist since graduation.

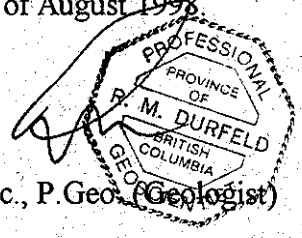
3.) That I am a member of the British Columbia and Yukon Chamber of Mines.

4.) That I am registered as a Professional Geoscientist by the Association of Engineers and Geoscientists of British Columbia (No. 18241)

5.) That this report is based on my personal knowledge of the property and geological mapping and GPS surveys conducted on the Big Bar Property on the 25th day of May 1998.

Dated at Williams Lake, British Columbia

this 28th day of August 1998.



R.M. Durfeld, B.Sc., P.Geo. (Geologist)

P.O. Box 4438 Station Main,
Williams Lake, B.C. V2G 2V5

Tel: 604/392-4691 • Cell: 604/398-0353 • Fax: 604/392-3070

APPENDIX III

Geochemical Analyses and Procedures

MINERAL
ENVIRONMENTS
LABORATORIES LTD.

SPECIALISTS IN MINERAL ENVIRONMENTS
CHEMISTS • ASSAYERS • ANALYSTS • GEOCHEMISTS

VANCOUVER OFFICE:
8282 SHERBROOKE STREET
VANCOUVER, BC, CANADA V5X 4E8
TELEPHONE (604) 327-3436
FAX (604) 327-3423

SMITHERS LAB:
3176 TATLOW ROAD
SMITHERS, BC, CANADA V0J 2N0
TELEPHONE (250) 847-3004
FAX (250) 847-3005

Quality Assaying for over 25 Years

Geochemical Analysis Certificate

8V-0299-RG1

Jun-18-98

Company: **DURFELD GEOLOGICAL**
Project: BIG BAR
Attn: R.M. DURFELD

We *hereby certify* the following Geochemical Analysis of 6 ROCK samples submitted Jun-12-98 by R.M.DURFELD.

Sample Name	Au-fire PPB	Hg PPB
294401	2	70
294402	18	165
294403	7	120
294404	2	80
294406	8	1345
294407	5	75

Certified by _____

Min-En Laboratories

Mineral Environments Laboratories
8282 Sherbrooke St., Vancouver, B.C., V5X 4E8
Tel (604) 327-3436 Fax (604) 327-3423

Report No : 8V0299
Date : Jun-18-98

DURFELD GEOLOGICAL

Attention: R.M. DURFELD

Project: BIG BAR

Sample: ROCK

MULTI-ELEMENT ICP ANALYSIS

Aqua Regia Digestion

Sample Number	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	K %	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sc ppm	Sn ppm	Sr ppm	Tl %	V ppm	W ppm	Y ppm	Zn ppm	Zr ppm
294401	<0.2	0.36	10	80	0.5	<5	0.20	<1	1	36	5	0.86	0.19	0.07	155	2	0.08	2	60	18	<5	<1	<10	7	<0.01	2	<10	9	72	5
294402	0.2	1.11	20	50	<0.5	<5	0.24	<1	9	28	33	4.80	0.10	0.63	385	10	0.04	8	910	10	5	2	<10	33	0.01	58	<10	2	66	5
294403	0.2	1.44	5	50	0.5	<5	1.67	<1	15	29	29	4.56	0.12	0.99	740	<2	0.06	11	930	8	<5	3	<10	62	0.01	63	<10	11	88	8
294404	<0.2	1.56	<5	60	0.5	<5	1.93	<1	13	29	29	3.40	0.17	1.10	510	<2	0.05	16	630	4	<5	3	<10	51	0.01	48	<10	7	62	5
294406	0.2	0.48	210	80	<0.5	5	1.42	<1	3	14	18	4.26	0.30	0.03	70	<2	0.03	2	870	20	5	2	<10	102	<0.01	25	<10	1	33	5
294407	<0.2	0.23	15	50	<0.5	<5	0.26	<1	<1	41	3	0.58	0.19	0.01	30	<2	0.05	1	40	10	<5	<1	<10	17	<0.01	1	<10	2	25	6

A .5 gm sample is digested with 10 ml 3:1 HCl/HNO3 at 95c for 2 hours and diluted to 25ml with D.I.H20.

Signed:_____

APPENDIX IV

Petrographic Report

SAMPLE 294402

HAND SAMPLE DESCRIPTION

Oxidized, mottled brown to cream coloured lapilli tuff with angular volcanic fragments in the millimetre to 2cm size range. K.feldspar staining indicates that the lapilli are monolithic, fine grained and highly potassic (K.Feldspar) with local recognizable trachytic textures in feldspars. The lapilli are matrix supported, the latter is fine grained and hematitic with local clusters of fine pyrite cubes. K.Feldspar is not evident in the matrix from staining; there is however local fine silica flooding. This sample is non-magnetic and does not display any carbonate reaction to acid.

THIN SECTION DESCRIPTIONS

Thin section examination for this sample confirmed the hand sample observations. The angular millimetre to centimetre scale lapilli are essentially monolithic consisting of fine grained feldspar rich volcanic fragments. Potassic feldspar microlites in these lapilli display felty trachytic textures and may locally exhibit millimetre scale banding. Some larger lapilli were originally vesicular. The protolith to the lapilli would probably be trachyte or potassic latite. Very fine disseminated hematite occurs throughout. Many lapilli contain small clusters of variably oxidized pyrite cubes up to 0.5mm grain size. The matrix to the lapilli and amygdales consists of fine grained quartz and chlorite with delicate banded textures. This represents matrix replacement (flooding) in the porous lapilli tuffs. Local patches of remnant fine grained feldspathic matrix ash were observed. Fine silica envelopes all the lapilli and lines vesicles. Green chlorite displays delicate bladed (palisade) textures and fills smaller cavities. Larger cavities are filled by 'pools' of coarser quartz. Pyrite is generally absent from the matrix though there are some patches of strong oxidation (after chlorite?) and widespread fine disseminated hematite.

There is no evidence for any deformation post dating matrix silica flooding. Some deformation may have occurred before; the lapilli however are not very fractured or veined!

R. C. Wells, P.Geo., FGAC. Kamloops Geological Services Ltd.

SAMPLE 294403

HAND SAMPLE DESCRIPTION

Mottled green and maroon fine lapilli tuff with millimetre to 1cm size angular volcanic fragments in a fine grained hematitic matrix. The lapilli consist predominantly of fine grained K.Feldspar rich volcanic rocks though 5 to 10% appear different (weakly heterolithic), fine grained with no K.Feldspar. Very fine disseminated pyrite cubes occur throughout predominantly within the lapilli. The matrix features patchy carbonate and silica flooding. No magnetic response.

THIN SECTION DESCRIPTIONS

This is a more vesicular and crowded lapilli tuff than sample 294402, although it is, compositionally, quite similar. Closely spaced angular lapilli are in the millimetre to 1cm size range and consist predominantly of K.feldpar rich locally trachytic textured and fine grained volcanic fragments. Latite to trachyte volcanic compositions are probable. The majority of the larger lapilli are vesicular with fine silica and/or chlorite amygdales. Some lapilli are pumiceous, aphanitic and squashed, a few of these do not take K.feldspar stain (siliceous!).

Matrix replacement (flooding) by fine chlorite and silica is not as advanced in this sample as 294402. Patchy fine grained, variable altered and recrystallized? ash occurs throughout. In some matrix area quartz and chlorite forms laminated textures. Fine silica rims lapilli, then chlorite laminae and silica pools in matrix cavities. Delicate, bladed texture in chlorite laminae are rare or poorly developed. Later carbonate flooding is clearly evident in some matrix areas. These may have greater than 50% dusty fine grained calcite (hematite inclusions).

Approximately 4% pyrite occurs as small clusters of cubic grains up to 0.5mm predominantly with lapilli. Fine dusty hematite occurs in lapilli and carbonate matrix but is absent from silica flooded areas.

R. C. Wells, P.Geo., FGAC. Kamloops Geological Services Ltd.

560000 560500 561000 561500 562000

5669500 5669000 5668500 5668000

N

Area of 1980 to 1988
detailed exploration.

294407
294406
294404
294403
294402
294401

EDGE FAULT

LEGEND

QUATERNARY

1 till, gravel, sand, clay, silt

EOCENE

2 -unaltered felsic to ryolitic flows

3 - fine grained andesite

4a - interlayered felsic/rhyolitic tuffs, agglomerates and clastics

Strong altered, locally silicified, white weathering alteration zone

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
R. M. DURFELD
GEOSCIENTIST

BIG BAR PROJECT

GEOLOGY SKETCH
/SAMPLE LOCATION

Scale 1: 5000.0

0 100 200 300 M

Date: 27-AUG-98 | By: TED | Figure 3

Tech Work By: DURFELD GEOLOGICAL MANAGEMENT