

GEOLOGICAL BRANCH  
ASSESSMENT REPORT

11,693

GEOCHEMICAL REPORT ON THE  
LEON 2 - 4 CLAIMS  
BRITISH COLUMBIA  
CLINTON MINING DIVISION

by

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and  
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410 - 675 West Hastings Street  
Vancouver, B.C.

CLAIMS

Leon 2 - 4  
NTS - 920/1  
122°05W 51°05W

Work paid for by Dome Exploration (Canada) Limited

July 8, 1983

## TABLE OF CONTENTS

	<u>Page</u>
INTRODUCTION . . . . .	1
LOCATION AND ACCESS . . . . .	1
CLAIMS . . . . .	3
WORK PROGRAM . . . . .	5
GENERAL GEOLOGY . . . . .	6
RESULTS . . . . .	7
DISBURSEMENTS . . . . .	8

## APPENDIX

Appendix 1	Geochemical Results
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## ILLUSTRATIONS

Figure 1	Location Map . . . . .	2
Figure 2	Claim Map . . . . .	4
Figure 3	Geochemical Map . . . . .	In Pocket

## INTRODUCTION

This report summarizes the results of a rock chip sampling program on the Leon 2, 3 and 4 claims between June 27 and July 4, 1983. Eighty-one grab samples were collected and subsequently analyzed for gold and mercury by fire assay and/or atomic absorption method, and analyzed for 26 elements by the inductively coupled plasma method. The program was designed to aid in evaluating strong stream sediment anomalies which were previously noted in creeks draining the claim block.

## LOCATION AND ACCESS

The property is located 70 kilometres north of Lillooet on the west side of the Fraser River. The claims lie between  $51^{\circ}01'15''$  and  $51^{\circ}02'30''$  latitude and  $122^{\circ}00'$  and  $122^{\circ}06'$  longitude. Access is by dirt road along the western side of the Fraser River. The turnoff to the prospect is 10 kilometres north of Lillooet on the Goldbridge road. Most of the 60 kilometre access route is a graded dirt road. A four-wheel drive vehicle is required for the last few kilometres of road leading into the property.

The Leon claims lie above the 1220 metre level, with a local summit of 1740 metres in the centre of the claims. The northern slope is heavily timbered with variable amounts of underbrush and deadfall. The southern slope down to Leon Creek consists of open land, with a minor amount of forest. An old logging road can be seen on the lower levels.

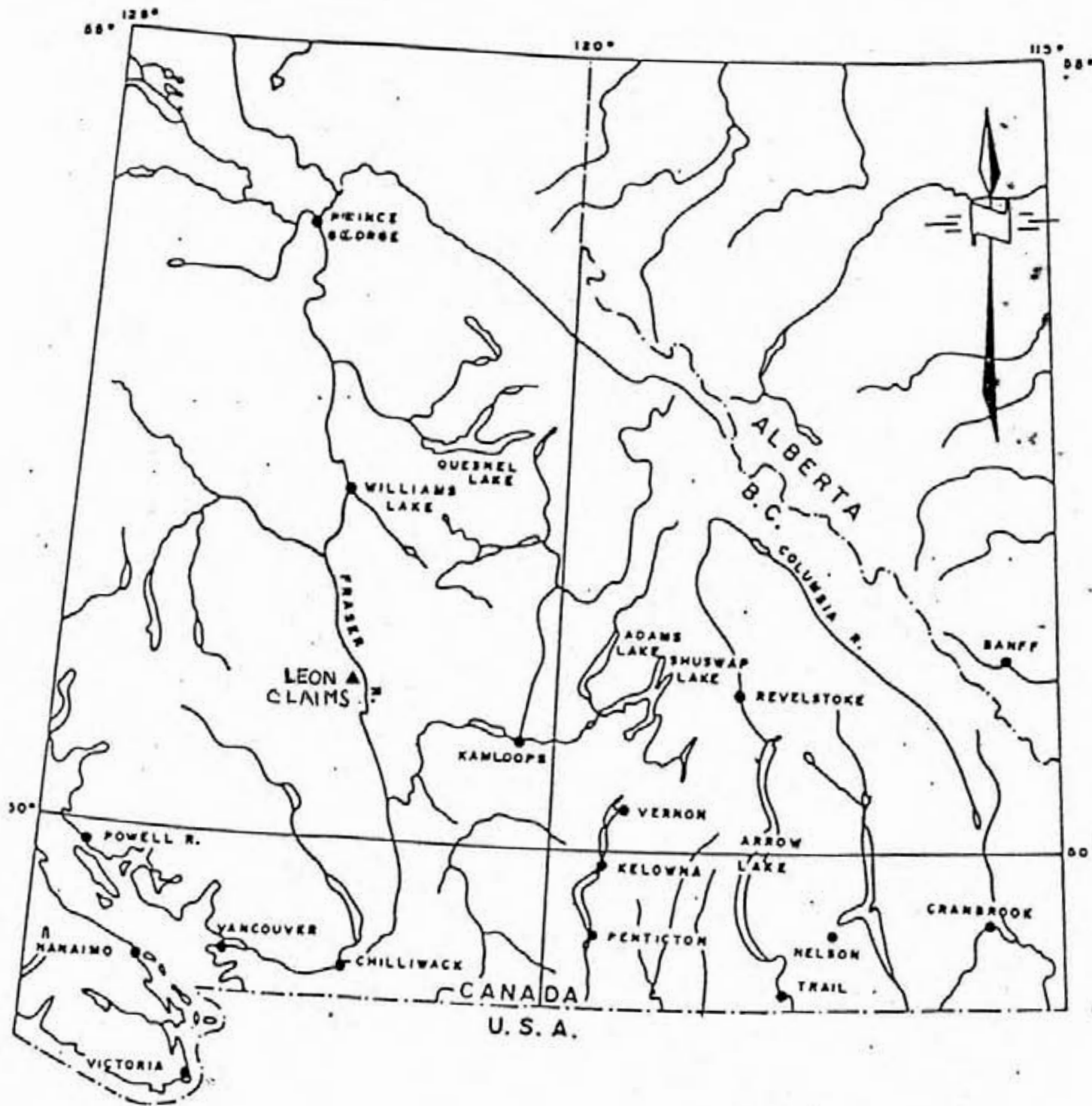


FIGURE 1  
LOCATION MAP  
SCALE 1:2,100,000

**CLAIMS**

There are three claims within the group. Expiry dates noted assumed that the work described herein is accepted for assessment purposes.

<u>Name</u>	<u>No. of Units</u>	<u>Record No.</u>	<u>Expiry Date</u>
Leon 2	16	935	August 26, 1984
Leon 3	20	936	August 26, 1984
Leon 4	6	937	August 26, 1985

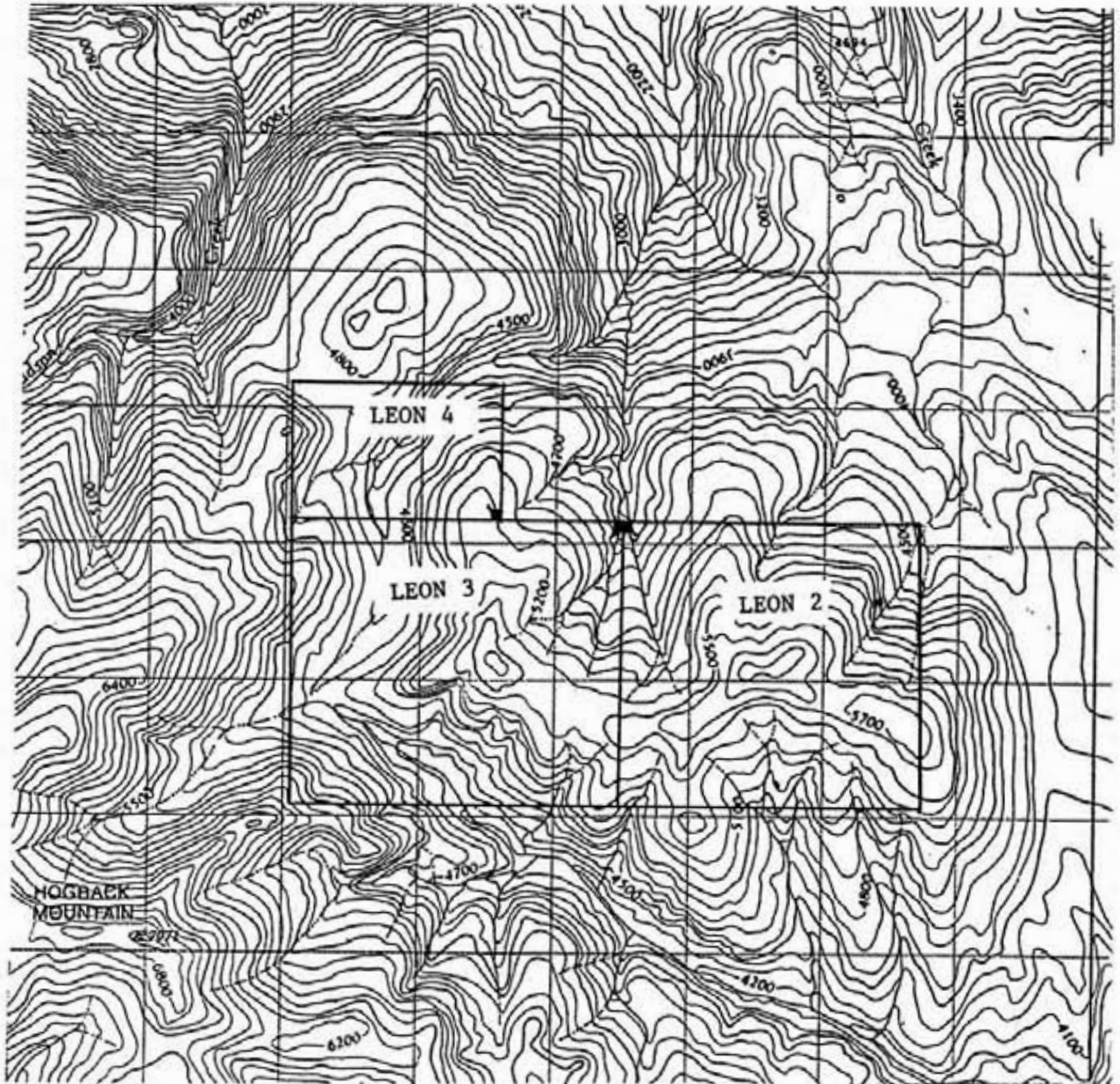


FIGURE 2  
CLAIM MAP - LEON CLAIMS  
Clinton Mining District  
Scale 1:50,000  
NTS 92 0/1E

## WORK PROGRAM

The 1983 program consisted of prospecting and rock chip sampling of float and outcrop. Eighty-one grab samples, some 0.5 kilogram each, were collected between June 27 and July 4, 1983, primarily from the northern portion of the claim block. Each sample was pulverized to -100 mesh and analyzed by Acme Analytical Laboratories, 852 East Hastings Street, Vancouver, B.C. The gold content was analyzed by a combination of fire assay and atomic absorption methods; mercury content by the atomic absorption method; and 26 elements by the inductively coupled argon plasma method. Results are shown in the appendix.

## GENERAL GEOLOGY

In the northeast of the map area, the Leon claims are underlain by the Ward Creek assemblage, a sequence of altered, faulted and fractured Tertiary or Cretaceous volcanic rocks. Basaltic flows and volcanic breccia within this assemblage vary from dark green to brick red.

The balance of the map area consists of the lower Mid Cretaceous Jackass Mountain Group sandstone and conglomerate, in fault contact with the Ward Creek assemblage. The fractured conglomerate unit forms steep slopes and is exposed in rounded, glaciated knobs along the ridge summit. Plutonic clasts are prevalent and include hornblende diorite, granitic gneiss, granodiorite and epidotized granite. A unit of well indurated sandstone (lithic arenite, quartzite and greywacke) and siliceous siltstone underlies the lower slopes.

A poorly exposed granitic body intrudes the Jackass sediments near the northern end of the claims. Quartz-carbonate veins cut both the Jackass Mountain Group and the granitic intrusion. Numerous faults, probably related to the Fraser Fault System to the east, are thought to have originated in the Lower Cretaceous period and to have continued intermittently until the Oligocene period.



## RESULTS

Results of geochemical analysis are presented in Figure 3. Each sample site is plotted and shows gold content in ppb, mercury content in ppb and arsenic content in ppm. Eighty-one samples, consisting of eighty rock chip and one soil were analyzed. Threshold values were taken at the 98th cumulative percentile. One sample (1.2%) was above the threshold value of 15 ppb gold. Three samples (3.72%) were at or above the sub-anomalous threshold of 7 ppb. A bimodal distribution was evident.

High regional background values resulted in a complex interpretation of arsenic data. Two alternate views were possible; two populations and a truncated tail or three populations. Inflection points were somewhat ambiguous. Interpreted as a polymodal distribution, a threshold value of 300 ppm distinguishes anomalous samples. Fourteen samples (17.4%) were at or above 300 ppm. A secondary sub-anomalous classification between 299.9 ppm and 200 ppm included three samples (3.7%).

Threshold value for mercury was set at 250 ppb. Twenty-five samples (30.9%) were at or above this level.

The 1983 program added significantly to the data file for the Leon prospect, but did not delineate any easily recognizable targets.

## DISBURSEMENTS.

## 1. Salaries:

Cameron, geologist	8 days @ \$170	\$1,360	
McCosh, assistant	8 days @ \$119	<u>952</u>	\$ 2,312.00

## 2. Vehicle rental, operation, maintenance

2 4-wheel drive	8 days @ \$40		640.00
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3. Accommodation, board and miscellaneous			465.58
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## 4. Geochemical analysis - Acme Analytical Laboratories Ltd.

Rocks - 80 samples; soil - 1 sample			1,300.00
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5. Report preparation			<u>400.00</u>
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TOTAL			\$ <u>5,117.58</u>
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WORK PAID FOR BY DOME EXPLORATION (CANADA) LIMITED

Prepared by:

FOX GEOLOGICAL CONSULTANTS LTD.

*Rohat Cameron*

R. S. Cameron, B.Sc.

*Saul J. Topham*

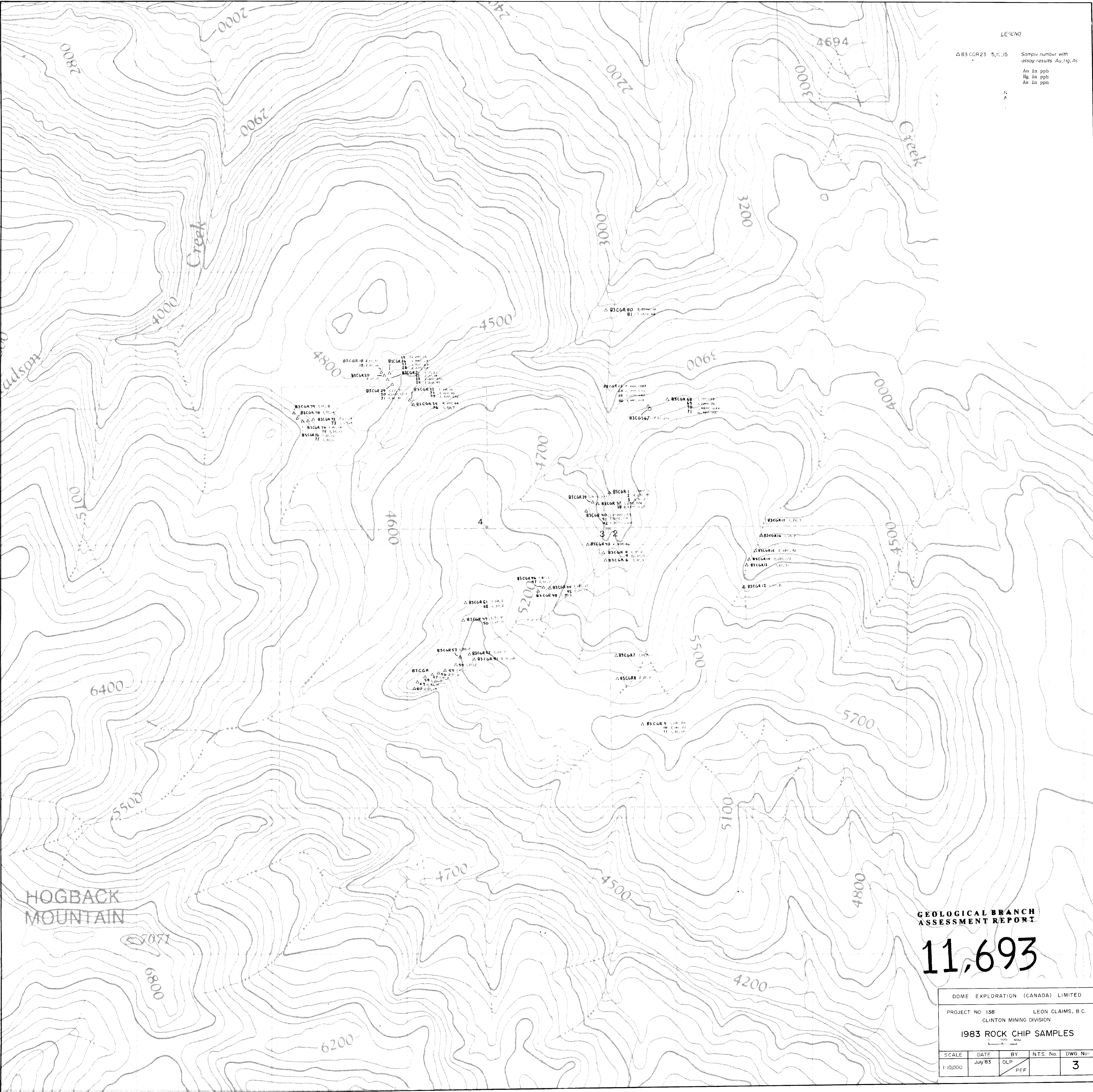
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*P. E. Fox*  
P. E. Fox, Ph.D., P.Eng.

**APPENDIX 1**

SAMPLE #	Mo	Cu	Pb	Zn	Ag	Mi	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Au+0	Hgr
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
83CGR-38	1	12	16	75	.1	7	4	460	1.60	1607	2	ND	2	75	1	141	2	15	.11	.01	2	7	.04	116	.01	5	.18	.01	.03	2	2	8300
83CGR-39	1	10	7	50	.1	10	10	773	4.10	977	6	ND	2	29	1	275	2	77	1.97	.07	5	10	.10	77	.01	9	.70	.01	.04	2	1	3400
83CGR-40	2	7	9	232	.1	5	6	497	1.31	971	2	ND	2	40	1	74	2	15	.15	.02	2	5	.02	104	.01	6	.25	.01	.04	2	1	29000
83CGR-41	2	6	4	48	.1	4	5	166	.47	1381	2	ND	2	23	1	54	2	7	.77	.01	2	6	.02	74	.01	5	.18	.01	.03	2	1	3100
83CGR-42	1	65	7	31	.1	4	4	81	2.56	2350	2	ND	2	52	1	266	2	39	.11	.02	4	8	.01	57	.01	7	.51	.02	.05	2	1	19000
83CGR-43	1	11	7	55	.1	42	12	685	3.63	46	2	ND	2	36	1	2	2	66	1.49	.05	3	58	1.79	33	.09	3	2.46	.04	.06	2	2	370
83CGR-44	1	10	11	79	.1	16	12	454	3.92	21	2	ND	2	21	1	2	2	76	1.40	.07	3	28	1.70	43	.13	6	3.14	.04	.08	2	1	140
83CGR-45	1	37	9	52	.1	11	9	517	3.13	13	2	ND	2	24	1	2	2	60	.88	.06	6	16	1.11	63	.13	6	2.18	.06	.07	2	1	100
83CGR-46	1	18	5	50	.1	22	8	503	2.72	6	2	ND	2	26	1	2	2	57	.67	.06	2	21	1.04	48	.10	3	1.90	.06	.19	2	1	80
83CGR-47	1	15	8	47	.1	23	9	497	2.98	7	2	ND	2	38	1	2	2	60	.77	.06	3	22	1.13	59	.12	5	2.05	.06	.07	2	2	50
83CGR-48	1	17	6	47	.1	27	9	437	2.97	5	2	ND	2	25	1	2	2	63	.59	.06	4	29	1.18	59	.11	4	1.94	.06	.07	2	1	70
83CGR-49	1	21	12	71	.1	12	13	752	4.13	8	7	ND	2	38	1	2	2	97	1.26	.08	7	28	1.56	54	.19	8	2.78	.04	.10	2	1	50
83CGR-50	1	21	11	67	.1	11	13	688	4.00	15	2	ND	2	48	1	2	2	93	1.57	.07	7	24	1.55	37	.18	8	2.73	.04	.06	2	1	60
83CGR-51	1	15	11	86	.1	13	13	862	4.59	18	4	ND	2	47	1	2	2	106	1.34	.09	6	32	1.60	70	.20	5	3.01	.04	.14	2	5	30
83CGR-52	1	16	9	74	.1	14	10	661	4.22	11	2	ND	2	51	1	2	2	101	1.31	.08	6	31	1.57	43	.19	5	2.99	.03	.13	2	1	60
83CGR-53	1	11	10	82	.1	8	11	740	4.07	16	6	ND	2	48	1	2	2	82	1.33	.08	6	25	1.56	61	.15	7	2.91	.03	.11	2	1	20
83CGR-54	1	27	5	71	.1	145	34	770	5.56	7	2	ND	2	45	1	2	2	21	.71	.19	18	23	3.91	18	.03	2	.94	.18	.04	2	1	20
83CGR-55	1	31	6	65	.1	26	13	499	3.77	11	2	ND	2	41	1	2	2	96	.61	.07	5	36	1.59	35	.17	4	2.22	.05	.10	2	1	40
83CGR-56	1	24	8	56	.2	30	11	472	3.36	11	3	ND	2	90	1	2	2	93	1.09	.05	4	46	1.40	27	.14	3	2.79	.02	.05	2	2	50
83CGR-57	1	22	9	65	.1	15	12	620	3.78	8	6	ND	2	51	1	2	2	99	1.24	.08	6	26	1.48	31	.17	7	2.68	.04	.08	2	1	40
83CGR-58	1	1	4	4	.2	2	1	34	.21	2	2	ND	2	115	1	9	2	3	22.65	.03	2	2	8.47	11	.01	2	.09	.01	.01	2	1	20
83CGR-59	1	21	11	77	.2	14	15	721	4.98	16	4	ND	2	55	1	2	2	124	1.60	.08	7	42	1.96	45	.23	7	2.98	.03	.06	2	1	40
83CGR-60	1	17	10	74	.2	11	13	741	4.17	13	2	ND	2	66	1	2	2	93	1.67	.08	8	29	1.68	55	.19	10	3.06	.03	.09	2	1	20
83CGR-61	1	24	7	28	.1	13	8	390	2.27	2	2	ND	2	55	1	2	2	57	.85	.08	4	41	.91	86	.07	5	1.50	.11	.09	2	1	60
83CGR-62	1	28	4	63	.1	22	12	583	3.78	2	7	ND	2	55	1	2	2	85	.67	.05	4	35	1.45	60	.12	3	2.59	.03	.08	2	2	30
83CGR-63	1	50	6	7	.1	2	1	246	1.18	1389	2	ND	2	50	1	14	2	5	1.04	.01	2	3	.31	261	.01	3	.23	.01	.03	2	5	1600
83CGR-64	1	96	8	14	.1	2	2	134	1.17	633	2	ND	2	27	1	19	2	2	.55	.01	5	4	.13	140	.01	4	.47	.01	.07	2	6	1000
83CGR-65	1	74	6	11	.1	2	3	259	1.29	682	2	ND	2	41	1	20	2	2	1.22	.01	5	3	.07	1524	.01	4	.39	.01	.08	2	7	1200
83CGR-66	1	52	9	10	.2	2	3	279	.75	219	2	ND	2	21	1	10	2	2	.08	.01	7	4	.02	557	.01	6	.42	.01	.11	2	3	440
83CGR-68	1	2	7	11	.1	1	1	213	.47	139	2	ND	2	13	1	3	2	2	1.22	.01	6	2	.02	86	.01	4	.40	.01	.03	2	1	750
83CGR-69	1	2	9	12	.1	1	1	168	.50	91	2	ND	2	14	1	2	2	2	.39	.01	6	2	.02	63	.01	6	.36	.03	.05	2	1	2000
83CGR-70	4	90	15	219	.1	3	2	89	2.12	1686	2	ND	2	11	1	34	2	8	.12	.01	6	2	.02	123	.01	4	.40	.01	.06	2	1	8800
83CGR-71	1	90	7	82	.2	9	11	1104	5.41	155	2	ND	2	51	1	2	2	102	11.97	.04	3	12	.15	223	.01	4	.78	.01	.02	2	10	180
83CGR-72	1	23	8	59	.1	4	9	906	2.77	19	6	ND	2	88	1	2	2	86	2.46	.08	8	14	.61	50	.15	12	1.78	.11	.09	2	2	60
83CGR-73	1	17	12	67	.1	10	11	769	3.85	14	2	ND	2	62	1	2	2	84	1.88	.07	7	27	1.52	34	.17	11	2.90	.04	.06	2	1	20
83CGR-74	1	16	9	61	.2	10	11	595	3.52	14	2	ND	2	85	1	2	2	82	1.80	.07	7	24	1.36	36	.19	9	3.19	.03	.10	2	1	40
83CGR-75	1	23	123	80	.1	12	14	863	4.22	13	6	ND	2	62	1	2	2	103	1.68	.07	6	21	1.59	70	.21	9	3.07	.03	.09	2	1	20
STD A-1/FA-MU	1	30	41	185	.3	35	13	1034	2.86	9	2	ND	2	38	1	2	2	61	.63	.10	8	76	.73	290	.08	7	2.04	.02	.20	2	54	50

SAMPLE #	No ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Na ppm	Ti %	B ppm	Al %	Si %	K %	W ppm	Au10 ppb	Hg1 ppb
83CGR-76	1	21	77	79	.1	13	15	776	4.42	12	9	ND	2	57	1	2	2	104	1.85	.07	6	26	1.75	46	.23	9	3.19	.03	.10	2	1	20
83CGR-77	1	15	95	81	.2	11	12	777	3.94	11	8	ND	2	71	1	2	2	87	1.58	.07	6	26	1.52	58	.20	10	2.96	.03	.10	2	1	30
83CGR-78	1	23	13	70	.1	10	13	770	4.42	14	10	ND	2	90	1	2	2	109	2.03	.07	7	22	1.63	66	.23	14	3.32	.04	.10	2	1	30
83CGR-79	1	21	12	70	.1	11	14	780	4.36	9	6	ND	2	84	1	2	2	105	1.78	.07	7	22	1.68	55	.21	10	3.14	.03	.10	2	1	10
83CGR-80	1	7	3	18	.1	5	5	395	1.78	18	2	ND	2	246	1	2	2	34	5.51	.01	2	9	2.07	285	.01	5	.34	.01	.04	2	2	2600
83CGR-81	1	2	6	15	.1	10	9	709	2.27	48	2	ND	3	201	1	4	2	50	3.67	.03	2	13	1.22	294	.01	4	.44	.01	.03	2	1	1600
83CGR-47 SOIL	1	20	9	52	.1	16	6	533	1.77	206	3	ND	2	45	1	8	2	34	.54	.04	3	17	.24	721	.05	3	1.17	.02	.07	2	7	60



LEGEND  
 Δ BSCGR 23 5, 1, 15 Sample number with assay results Au, Ag, As  
 Au in ppb  
 Ag in ppb  
 As in ppb  
 N  
 ↑

HOGBACK MOUNTAIN

GEOLOGICAL BRANCH ASSESSMENT REPORT

11,693

DOMEX EXPLORATION (CANADA) LIMITED					
PROJECT NO: 138			LEON CLAIMS, B.C.		
			CLINTON MINING DIVISION		
1983 ROCK CHIP SAMPLES					
SCALE	DATE	BY	NTS. No.	DWG. No.	
1:10,000	July 83	DLP	PEF	3	