1989 Prospecting Report on the BLUEBERRY MOUNTAIN PROPERTY Gran13 Claim

Liard Mining Division

N.T.S:104G/14W
LAT:57° 59'N
LONG:131° 22'W

Owners: Homestake Mineral Development Company
1000 - 700 W. Pender St.
Vancouver, B.C.
and
Equity Silver Mines Ltd.
Suite 13 - 1155 Melville St
Vancouver, B.C.

Operator: Homestake Mineral Development Company

M. McPherson
R.G. Carmichael
June 23, 1989

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SUMMARY

The Blueberry Mountain property is located in the Stikine region of British Columbia. The property consists of one claim (Gran 13) totalling 20 units, and is owned by Homestake Mineral Development Company and Equity Silver Mines Ltd.

Work on the property was carried out on May 31,1989, and involved prospecting as well as the collection of one rock sample, 7 silt samples, 10 soil samples and 2 heavy mineral samples.

Analytical results are given in Appendix I. Sample 31059 (silt) returned 340ppb gold and the two heavy mineral samples (31055, 31057) returned 350ppb and 125ppb gold. One to two days of work are recommended to follow up these results. This work will be concentrated in the northwestern section of the claim..

1.0 INTRODUCTION

1.1 Location and Access

The Blueberry Mountain property is located in the Stikine region of northwestern British Columbia at the headwaters of Dodjatin Creek, approximately 14 km northwest of the village of Telegraph Creek (Figure 1.1). The claim is centred at 57° 59'N latitude and 131° 22'W longitude on NTS map sheet 104G/14W.

Access to the property is via helicopter from Telegraph Creek, which is connected to Dease Lake by an all-weather road and serviced by fixed-wing flights from Smithers, B.C. The Stikine River provides navigable water access from Wrangell, Alaska north to Telegraph Creek.

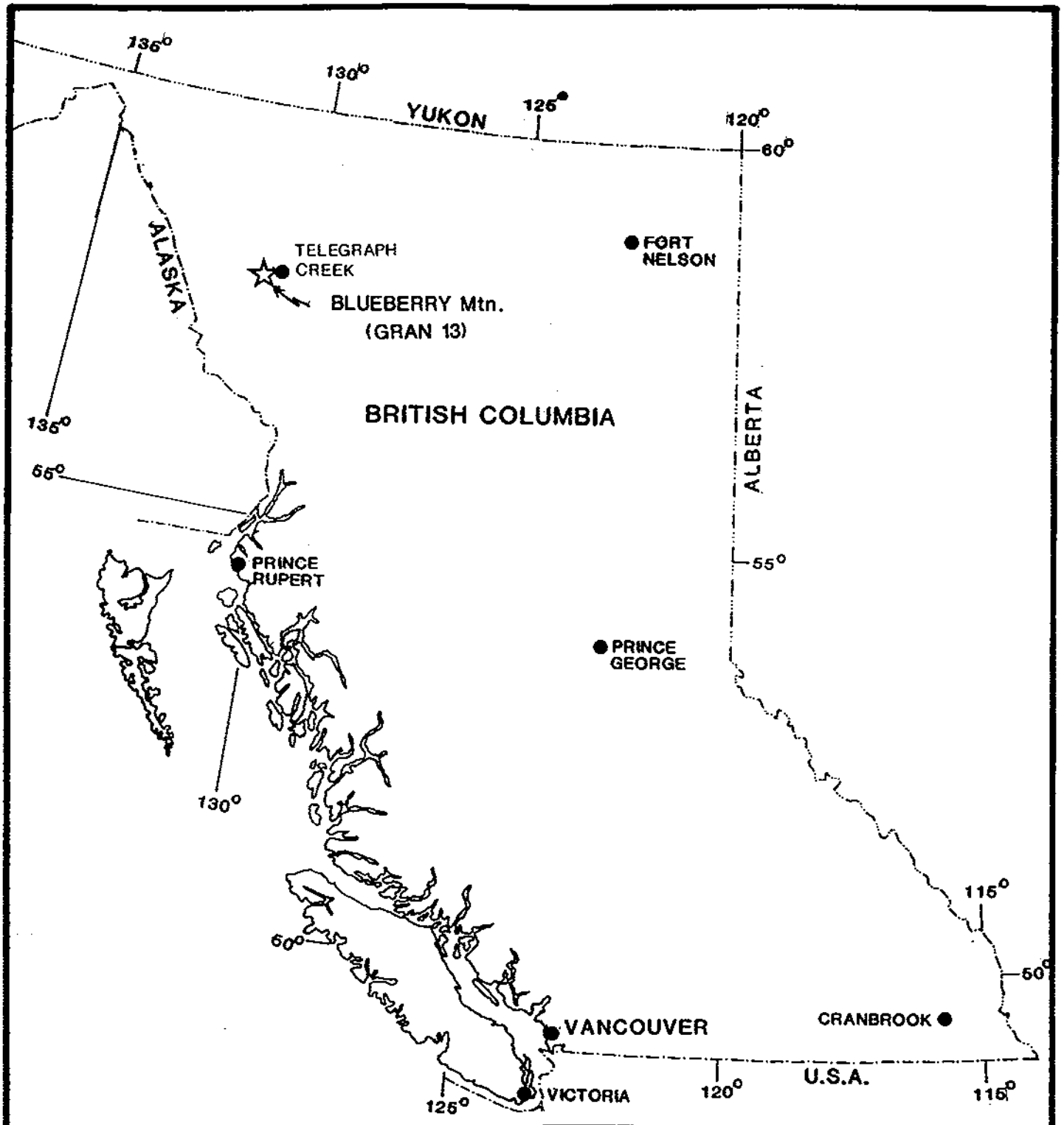
1.2 Claim Status

The Blueberry Mountain property consists of one claim totalling 20 units. The claims were recorded in June 1988 and are owned by Homestake Mineral Development Company and Equity Silver Mines Ltd. Assuming acceptance of this assessment work, claim data will be as follows:

CLAIM	UNITS	RECORD #	RECORD DATE	EXPIRY DATE
Gran 13	20	4670	June 14, 1988	June 14, 1990

1.3 Physiography

The property occupies an area of moderate topography,with elevations ranging from 850-1250 meters. There is some swampy ground in the centre of the claims and steep cliffs rise up on either side of Dodjatin Creek.



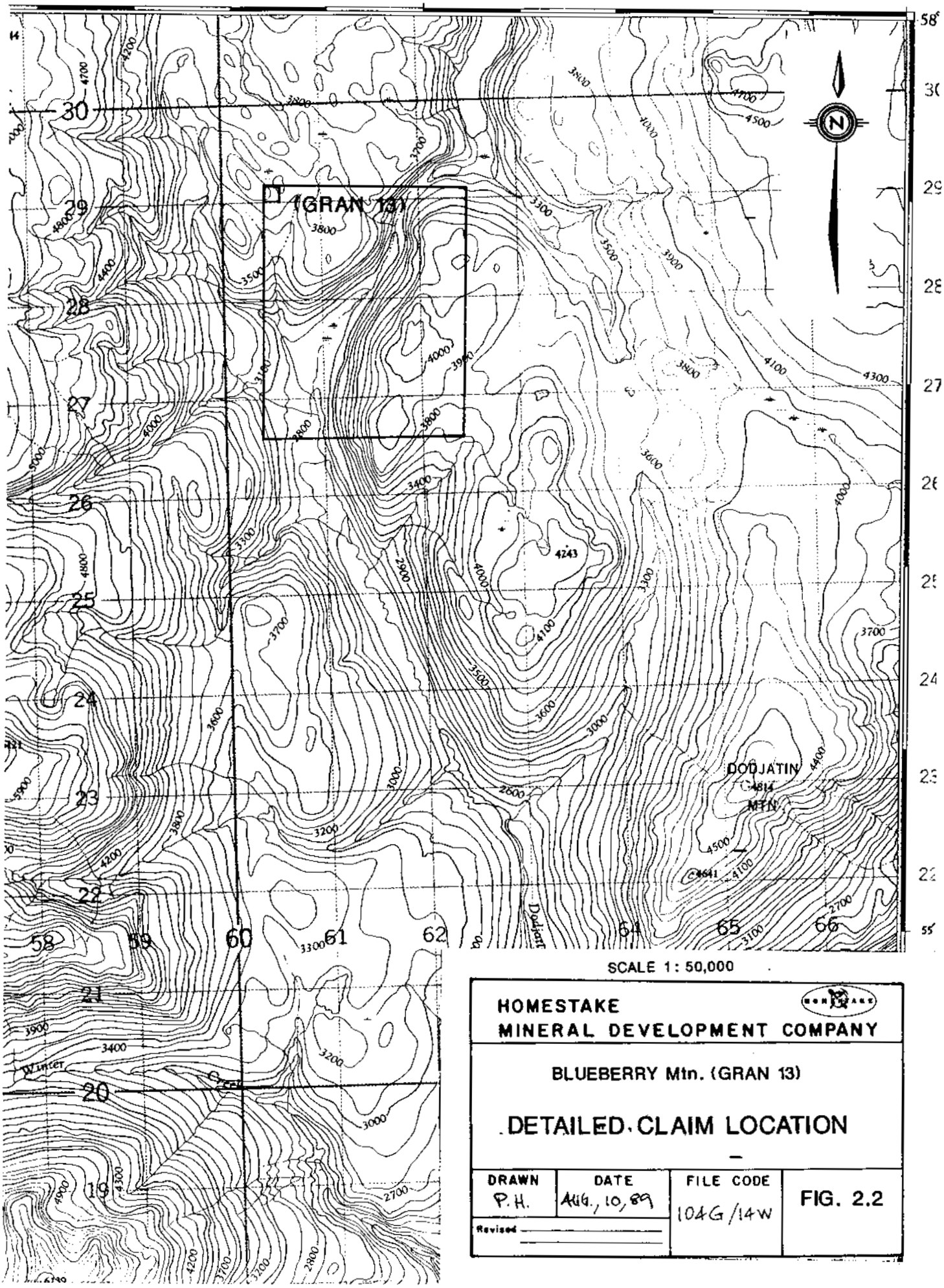
HOMESTAKE MINERAL DEVELOPMENT COMPANY

GRAND CANYON PROJECT, B.C.

BLUEBERRY Mtn.
(GRAN 13)

LOCATION MAP

DRAWN	DATE	FILE CODE	
KMc	11/87	104G	FIGURE 1.1
Revised			



HOMESTAKE
MINERAL DEVELOPMENT COMPANY

BLUEBERRY Mtn. (GRAN 13)

DETAILED CLAIM LOCATION

DRAWN	DATE	FILE CODE	FIG. 2.2
P.H.	Aug., 10, 89	104G/14W	
Revised			

1.4 Exploration History

There is no previous mineral exploration work recorded in the vicinity of this property.

1.5 Present Work

The 1989 work program outlined in this report was designed to locate areas of anomalous metal values and to assess the economic potential of the property. It consisted of rock sampling, stream sediment sampling, soil sampling, heavy mineral sampling and prospecting.

2.0 REGIONAL GEOLOGY

The property lies on the boundary between the Coast and Intermontane tectonic belts. This area is underlain by rocks of the Stikine Terrane (Stikinia) consisting of Paleozoic schists, phyllites and greenstones of the Stikine Assemblage, Mid to Upper Triassic sedimentary and volcanic rocks of the Stuhini Group (Kerr, 1948), and Late Cretaceous to Tertiary continental volcanic arc assemblages of the Sloko Group (Logan and Koyanagi, 1989).

Three stages of plutonism are recognized in the area. The Hickman batholith is composed of Early to Middle Triassic quartz diorites and Middle Jurassic quartz monzonites. The third series of intrusive rocks are alkalic, generally syenitic, rocks of Early Jurassic age. These Early Jurassic rocks are associated with mineralization in the area, including the Galore Creek and Schaft Creek porphyry deposits.

These rocks have undergone multiple stages of deformation, forming a complex structural pattern which is complicated by large differences in the competence of the different units. North- and northwesterly-trending normal faults are dominant with narrow west-trending extensional fault zones postdating them (Souther, 1972).

The most economically important exploration targets are porphyry copper-gold-silver deposits and peripheral mesothermal and shear zone-hosted precious metal veins (Logan et al, 1989).

3.0 PROPERTY GEOLOGY

The Blueberry Mountain property is supposedly underlain by undifferentiated Upper Triassic volcanic and sedimentary rocks
including limestone, greywacke, siltstone, shale, and augite andesite flows and pyroclastics and their derived volcaniclastics. Unfortunately rock exposure is poor except in cliff faces and consequently little is known about the local geology. The dominant rock type seen in float is a fine-grained andesitic volcanic.

132° 00'
58°00'
45'
30'
15'
131°00'

BLUEBERRY Mtn.
(GRAN 13)

45'

0 6 12 18 30

1 : 250,000

Kilometres

MAP MODIFIED FROM SOUTHER, 1971

15'

HOMESTAKE
MINERAL DEVELOPMENT COMPANY

GRAND CANYON PROJECT
TELEGRAPH CREEK B.C.
BLUEBERRY Mtn.
(GRAN 13)

REGIONAL GEOLOGY

DRAWN	DATE	FILE CODE	FIGURE 3.1
MJD	08/89		

LEGEND

CENOZOIC

QUATERNARY
PLEISTOCENE AND RECENT

29 Fluviatile gravel; sand, silt; glacial outwash, till, alpine moraine and colluvium

28 Hot-spring deposit, tufa , aragonite

27 Olivine basalt, related pyroclastic rocks and loose tephra; younger than some of 29

TERTIARY AND QUATERNARY
UPPER TERTIARY AND PLEISTOCENE

26 Rhyolite and dacite flows, lava domes, pyroclastic rocks and related subvolcanic intrusions; minor basalt

25 Basalt, olivine basalt, dacite, related pyroclastic rocks and subvolcanic intrusions; minor rhyolite; in part younger than some 26

CRETACEOUS AND TERTIARY
UPPER CRETACEOUS AND LOWER TERTIARY
SLOKO GROUP

24 Light green, purple and white rhyolite, trachyte and dacite flows, pyroclastic rocks and derived sediments

22 23 22. Biotite leucogranite, subvolcanic stocks, dykes and sills
23. Porphyritic biotite andesite, lava domes, flows and (?) sills

SUSTUT GROUP

21 Chert-pebble conglomerate, granite-boulder conglomerate, quartzose sandstone, arkose, siltstone, carbonaceous shale and minor coal

20 Felsite, quartz-feldspar porphyry, pyritiferous felsite, orbicular rhyolite; in part equivalent to 22

19 Medium-to coarse-grained, pink biotite-hornblende quartz monzonite

JURASSIC AND/OR CRETACEOUS
POST-UPPER TRIASSIC PRE-TERTIARY

18 Hornblende diorite

17 Granodiorite, quartz diorite; minor diorite, leucogranite and migmatite

JURASSIC
MIDDLE (?) AND UPPER JURASSIC
BOWSER GROUP

16 Chert-pebble conglomerate, grit, greywacke, subgreywacke, siltstone and shale; may include some 13

MIDDLE JURASSIC

15 Basalt, pillow lava, tuff-breccia, derived volcaniclastic rocks and related subvolcanic intrusions

LOWER AND MIDDLE JURASSIC

14 Shale, minor siltstone, siliceous and calcareous siltstone, greywacke and ironstone

LOWER JURASSIC

13 Conglomerate, polymictic conglomerate; granite-boulder conglomerate, grit, greywacke, siltstone; basaltic and andesitic volcanic rocks, peperites, pillow-breccia and derived volcaniclastic rocks

TRIASSIC AND JURASSIC
POST-UPPER TRIASSIC PRE-LOWER JURASSIC

12 Syenite, orthoclase porphyry, monzonite, pyroxenite

HICKMAN BATHOLITH

10 11 10. Hornblende granodiorite, minor hornblende-quartz diorite. 11. Hornblende, quartz diorite, hornblende-pyroxene diorite, amphibolite and pyroxene-bearing amphibolite

MESOZOIC

TRIASSIC
UPPER TRIASSIC

9 Undifferentiated volcanic and sedimentary rocks (units 5 to 8 inclusive)

8 Augite-andesite flows, pyroclastic rocks, derived volcaniclastic rocks and related subvolcanic intrusions; minor greywacke, siltstone and polymictic conglomerate

7 Siltstone, thin-bedded siliceous siltstone, ribbon chert, calcareous and dolomitic siltstone, greywacke, volcanic conglomerate, and minor limestone

6 Limestone, fetid argillaceous limestone, calcareous shale and reefoid limestone; may be in part younger than some 7 and 8

5 Greywacke, siltstone, shale; minor conglomerate, tuff and volcanic sandstone

MIDDLE TRIASSIC

4 Shale, concretionary black shale; minor calcareous shale and siltstone

PALEOZOIC

PERMIAN
MIDDLE AND UPPER PERMIAN

3 Limestone, thick-bedded mainly bioclastic limestone; minor siltstone, chert and tuff

PERMIAN AND OLDER

2 Phyllite, argillaceous quartzite, quartz-sericite schist, chlorite schist, greenstone, minor chert, schistose tuff and limestone

MISSISSIPPIAN

1 Limestone, crinoidal limestone, ferruginous limestone; maroon tuff, chert and phyllite

B Amphibolite, amphibolite gneiss; age unknown probably pre-Upper Jurassic

A Ultramafic rocks; peridotite, dunite, serpentinite; age unknown, probably pre-Lower Jurassic

Geological boundary (defined and approximate, assumed) .....
Bedding (horizontal, inclined, vertical, overturned) .....
Anticline .....
Syncline .....
Fault (defined and approximate, assumed) .....
Thrust fault, teeth on hanging-wall side (defined and approximate, assumed) .....
Fossil locality ..... ©
Mineral property ..... 15×
Glacier .....

INDEX TO MINERAL PROPERTIES

1. Liard Copper	5. Bam	9. MH	13. Ann, Su
2. Galore Creek	6. Gordon	10. BIK	14. SF
3. QC, QCA	7. Limpoke	11. JW	15. Goat
4. Nabs	8. Poke	12. Copper Canyon	16. Mary

GRAND CANYON PROJECT B.C.

GEOLOGICAL LEGEND

An investigation of aerial photographs of the claim area shows that Dodjatin Creek follows a strong linear feature which is interpreted to be a major fault. A second linear feature, trending northeast, crosses this fault near the southwestern corner of the claim forming a flat, swampy area. This is also the area from which the anomalous samples were obtained. Examination of government aeromagnetic maps (Map 9240G) indicates a linear magnetic low trending along Dodjatin Creek and centered at the intersection of the two structures. To the northeast of this intersection, the Dodjatin Creek fault splays into two or three sub-parallel features, possibly reflecting a change in lithology.

4.0 GEOCHEMISTRY

Four types of geochemical samples (stream silt, heavy mineral, rock and soil) were collected during the work program. Sample locations and results are plotted on Figure 4.1. Complete analytical results are included in Appendix I.

4.1 Analytical Methods

Seven stream sediment samples were taken from the Blueberry Mountain property. The samples were collected with a hand trowel or by hand and placed in kraft sample bags, air dried and shipped to Acme Analytical Labs of Vancouver, B.C. Sample analysis consisted of 30 element ICP and gold by fire assay. Sample sites were located by elevation and topography and marked by metal tags and orange flagging tape.

Two heavy mineral samples were taken from Dodjatin Creek. Stream sediment was sieved through a 20 mesh screen and collected in large plastic sample bags. A standard sample weight of 8kg was used. The samples were shipped to C.F. Mineral Research Ltd. of Kelowna, B.C. for heavy mineral and magnetic separation of the -150 mesh and 150-60 mesh fractions. The heavy non-magnetic fractions were then shipped to Acme Analytical Labs of Vancouver B.C. for analysis by 30-element ICP and gold by fire assay. A portion of each sample was retained and sent to Acme where it was analyzed in the same manner as the stream sediment samples.

One rock sample was collected from the property and shipped to Acme Analytical Labs where it was analyzed by thirty element ICP and gold by fire assay. Sample locations were marked in the field by metal tags and orange flagging tape.

10 soil samples were collected using a maddock, placed in kraft paper bags and air dried. They were then shipped to Acme Analytical Labs where 30 element ICP and gold by fire assay was done. As with other samples, locations were marked in the field with metal tags and orange flagging tape.

4.2 Results

The one rock sample collected in this work program was a dark grey-green diorite which was rusty weathering, slightly siliceous and contained 5 to 7% pyrite stringers. This sample returned 1.0ppm Ag, 21ppb Au and 15ppm As.

Gold values in the seven silt samples range from 5ppb to 340ppb. The 340ppb sample (31058) was collected about 100m downstream from the above rock sample.

Soil samples generally returned low gold values with the highest being 29ppb in sample 31069. The elevated zinc content of these samples is likely due to the swampy ground and high organic content of the samples.

The heavy mineral samples returned the following results:

sample #	geochemical	-60 to -150 mesh		-150 mesh	
	Au(ppb)	Ag(ppm)	Au(ppb)	Ag(ppm)	Au(ppb)
31055	350	3.3	146	3.0	5809
31057	125	1.0	2167	3.1	2622

Samples with greater than 8000 ppb gold and/or 3.0 ppm silver are considered anomalous.

5.0 CONCLUSIONS AND RECOMMENDATIONS

The economic potential of the Blueberry Mountain property is difficult to evaluate by prospecting due to the paucity of outcrop. Air photo and aeromagnetic interpretation suggests that the property covers an intersection between two major faults, possibly with related hydrothermal alteration. Combined with the anomalous gold, silver and arsenic geochemistry, these features indicate that further work is warranted.

Additional work will involve finding and sampling outcrop around the area of anomalous samples as well as additional soil sampling. This work is expected to take two to three days.

6.0 REFERENCES

Brown, D.A. and Gunning, M. (1989): "Geology of the Stikine River Area, Northwestern B.C.", B.C. Ministry of Energy, Mines and Petroleum Resources, Geological Field Work, 1988, Paper 1989-1, pp. 251-267.

Holbek, P.M. (1988): "Geology and Mineralization of the Stikine Assemblage, Mess Creek Area, Northwestern British Columbia.", University of British Columbia MSc thesis.

Kerr, F.A. (1948): "Lower Stikine and Western Iskut River Areas, B.C.", GSC Memoir 246.

Logan, J.M. and Koyanagi, V.M. (1989): "Geology and Mineral Deposits of the Galore Creek Area, Northwestern B.C.", B.C. Ministry of Energy, Mines and Petroleum Resources, Geological Field Work, 1988, Paper 1989-1, pp. 269-284.

Souther, J.G. (1972): "Telegraph Creek Map Area, B.C.", GSC Paper 71-44.

7.0 STATEMENT OF COSTS

Labour		
Geologist	1 day @ $165/day	$165.00
Geologist	1 day @ $165/day	$165.00
Field Assistant	1 day @ $115/day	$115.00
Field Assistant	1 day @ $115/day	$115.00
Food and Accommodation		
	4 mandays @ $ 95/day	$380.00
Geochemical Analysis + Freight		
Rock Samples	1 @ $ 25/sample	$ 25.00
Silt Samples	7 @ $ 25/sample	$175.00
Soil Samples	10 @ $ 25/sample	$250.00
Heavy Mineral Samples	2 @ $100/sample	$200.00
Supplies		$200.00
Mob/Demob		$200.00
Helicopter Support (including fuel)		
	0.9 hrs @ $700/hr	$630.00
Report Preparation	1 day @ $165/day	$165.00
TOTAL		$2793.00

APPENDIX I

Analytical Results

CME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716

GEOCHEMICAL ANALYSIS CERTIFICATE

MASTER
NTS: STIKINE/BLUEBERRY MTN.
ii. BC 1046
RMB/ALCL.

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: P1 ROCK P2 SOIL AU* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

DATE RECEIVED: JUN 29 1989 DATE REPORT MAILED: July 6/89 SIGNED BY. C. Leong ..D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

HOMESTAKE MINERAL DEV. CO. PROJECT 5711 BM #3 File # 89-1821 Page 1

SAMPLE#	Mo 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 %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	AU* PPB
BM-G13-? 31026	2	181	18	32	1.0	5	15	309	5.15	15	5	ND	1	71	1	2	2	54	.79	.102	3	5	.68	10	.12	3	1.11	.03	.04	1	21

SAMPLE#	Mo 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 %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	AU* PPB
31052	1	124	19	120	.2	34	19	904	5.19	26	5	ND	1	56	1	2	2	115	1.46	.085	7	45	1.45	144	.11	39	2.48	.02	.06	1	61
31053	1	98	15	101	.1	24	19	745	4.76	19	5	ND	1	56	1	2	2	105	1.32	.084	7	33	1.19	121	.10	33	2.17	.02	.04	1	87
31054	1	124	17	129	.2	35	21	1005	4.99	25	5	ND	1	51	1	2	2	104	1.60	.078	7	42	1.48	146	.10	44	2.23	.02	.05	1	16
31056	1	64	10	74	.1	10	15	736	3.83	9	5	ND	1	45	1	2	2	79	1.48	.075	5	14	.82	55	.10	8	1.69	.01	.03	1	62
31058	1	61	4	79	.1	13	17	710	4.63	13	5	ND	1	36	1	2	3	94	1.70	.074	5	19	.77	45	.10	8	1.56	.01	.03	1	340
31060	1	71	8	98	.1	14	14	855	3.98	10	5	ND	1	61	1	2	2	76	1.56	.084	5	17	.91	65	.10	8	2.14	.01	.06	1	38
31061	1	44	20	267	.2	36	18	481	4.77	12	5	ND	1	33	1	2	3	95	.55	.043	5	36	.80	83	.13	6	2.76	.01	.10	1	5
31062	1	57	13	82	.1	19	15	723	5.14	20	5	ND	1	64	1	2	2	88	1.26	.090	6	21	.95	45	.15	8	2.88	.01	.05	1	13
31064	1	169	33	656	.2	40	25	997	4.97	22	5	ND	1	66	5	2	2	104	1.46	.307	6	40	1.41	167	.07	5	3.15	.03	.22	1	20
31065	3	515	23	177	.3	20	39	1210	5.05	15	5	ND	1	37	1	2	3	72	1.08	.148	13	22	.53	49	.04	2	2.53	.01	.04	1	10
31066	1	705	24	238	.7	41	42	1620	4.78	26	5	ND	1	171	3	2	2	95	2.23	.144	9	24	1.07	118	.06	8	3.04	.01	.21	1	10
31067	2	238	73	395	.2	71	63	1585	7.13	70	5	ND	1	141	2	2	2	168	1.19	.126	5	90	2.26	102	.07	3	3.27	.02	.09	1	4
31068	1	395	72	349	.6	27	87	1668	6.67	51	5	ND	1	74	5	2	2	85	1.92	.264	7	27	.58	46	.02	8	2.61	.01	.09	1	18
31069	1	165	28	122	.2	18	36	1220	4.55	33	5	ND	1	64	1	3	2	93	1.54	.109	5	18	1.00	69	.06	16	2.25	.02	.06	1	29
31070	1	109	20	144	.2	27	20	781	4.38	18	5	ND	1	71	1	2	2	87	.85	.081	6	25	.95	100	.09	6	2.50	.01	.07	1	14
31071	1	53	16	137	.2	18	15	682	5.07	10	5	ND	1	54	1	2	3	103	.65	.078	5	21	.64	84	.10	3	2.06	.01	.05	1	18
STD C/AU-S	18	63	41	132	6.8	70	30	967	4.06	44	22	7	38	49	19	15	18	59	.52	.092	39	52	.91	175	.07	37	2.03	.06	.13	12	51

SAMPLE#	Mo 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 %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Au* PPB	H.M. %	H.M. GM WT	MAG. GM
31055	1	168	11	106	.5	38	31	803	6.55	46	5	ND	2	120	1	2	2	132	2.52	.078	8	82	1.36	66	.30	27	2.47	.05	.06	1	350	1.97	11.90	1.2
31057	1	99	13	86	.7	26	31	855	8.51	38	5	ND	3	158	2	2	2	157	2.71	.111	12	33	1.02	28	.37	20	2.27	.03	.04	1	125	2.02	13.40	2.4
31398	2	153	27	59	2.0	49	24	525	5.52	29	5	ND	5	149	1	4	2	128	1.57	.060	31	69	1.47	421	.16	11	1.65	.04	.05	15	18	3.11	19.30	4.2
31028	1	252	20	105	.9	22	64	1346	11.76	54	5	ND	2	226	1	5	2	212	3.61	.097	18	35	1.13	125	.58	40	2.91	.06	.06	5	245	1.27	6.60	1.0
31243	7	69	21	73	.4	34	39	949	15.22	21	5	ND	3	220	1	5	5	318	2.53	.097	37	61	1.12	179	.35	12	2.34	.02	.06	1	17	1.43	6.20	.3
31089	1	69	2	67	.4	37	34	536	4.57	18	5	ND	11	78	1	2	2	71	2.39	.070	55	23	.73	98	.27	4	1.49	.06	.10	1	9	3.42	15.90	3.0
31094	1	37	2	39	.3	19	19	417	2.95	11	5	ND	24	36	1	2	3	61	1.54	.070	140	20	.78	181	.22	3	1.11	.07	.13	5	4	5.89	26.50	6.9

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716

GEOCHEMICAL ANALYSIS CERTIFICATE

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: Pulp AU** ANALYSIS BY FA/ICP FROM TOTAL SAMPLE.

DATE RECEIVED: JUL 10 1989 DATE REPORT MAILED: July 29/89 SIGNED BY. C. Leong .D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

HOMESTAKE MINERAL DEV. CO. PROJECT 5711 File # 89-2244 Page 1

SAMPLE#	Mo 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 %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Au** PPB
CC-29-4-31452 -60+150	2	520	6	43	.1	22	20	136	2.24	18	5	ND	2	58	1	2	2	25	1.03	.274	10	26	.43	63	.06	2	.34	.01	.06	44	675
CC-29-4-31457 -60+150	1	425	6	25	.2	16	17	149	2.27	15	5	ND	1	88	1	2	2	27	.69	.162	7	19	.40	56	.06	5	.32	.01	.08	10	18
BDG54-31170 -60+150	3	255	38	29	.3	57	61	144	12.78	23	5	ND	2	25	1	2	2	25	.43	.062	7	19	.31	8	.07	8	.37	.01	.02	2	20
BDG54-31171 -60+150	3	870	220	143	19.9	49	297	120	21.51	82	5	52	14	20	1	2	15	11	.38	.030	6	4	.15	5	.03	2	.20	.01	.02	108	1061
GR-8-4-31628 -60+150	1	713	67	97	2.5	31	144	180	13.55	210	5	ND	3	23	1	2	2	37	.67	.071	7	5	.20	7	.10	5	.51	.01	.01	1	6300
GR074-31081 -60+150	2	229	20	48	.2	22	78	284	6.42	43	5	ND	2	62	1	2	2	74	.98	.069	7	8	.53	11	.15	6	.84	.01	.01	1	191
BMG-13-4-31055 -60+150	3	525	43	203	3.3	91	99	166	20.83	259	5	3	2	12	4	3	2	27	.44	.035	4	17	.29	6	.07	33	.39	.01	.01	1	146
BMG-13-4-31057 -60+150	2	218	22	224	1.0	30	94	202	16.32	103	5	3	7	31	5	2	2	31	.59	.065	5	8	.32	13	.11	2	.41	.01	.01	1	2167
LCS24-31154 -60+150	1	154	28	34	.1	10	9	121	1.58	14	5	ND	16	15	1	2	2	27	.30	.025	4	18	.27	45	.07	2	.28	.01	.01	22	63
LCS24-31177 -60+150	1	100	3	18	1.9	7	4	97	.80	14	5	ND	3	16	1	2	2	24	.30	.023	7	20	.21	128	.09	2	.24	.01	.01	7	1255
LC32-4-31085 -60+150	3	688	152	342	7.3	117	98	135	24.18	408	5	5	2	32	6	30	2	23	.35	.030	2	8	.16	6	.02	3	.24	.01	.02	13	520
LC11-4-31155 -60+150	5	178	16	78	.1	21	17	193	3.70	52	5	ND	27	31	1	5	2	43	.51	.046	20	13	.33	76	.16	5	.35	.01	.02	56	16081
CM17-3-31097 -60+150	4	1042	16	53	.3	29	31	150	3.56	51	18	ND	122	24	1	2	2	42	.64	.062	16	12	.54	28	.22	4	.34	.01	.01	11	38
CM10-4-31167 -60+150	1	223	2	19	.1	93	9	99	.72	4	5	ND	4	11	1	2	2	9	.36	.052	5	28	1.39	96	.04	8	.19	.01	.01	1	5
NC20-4-31059 -60+150	1	71	9	66	.1	51	82	144	4.50	16	5	ND	21	19	1	2	3	14	.85	.054	102	6	.22	26	.10	2	.24	.01	.01	1	13
NC214-31094 -60+150	2	188	30	71	2.4	36	159	68	8.21	113	5	ND	31	24	2	3	3	13	1.30	.158	47	5	.17	15	.08	3	.30	.01	.01	39	44
CC-29-4-31449 -60+150	1	579	14	72	.1	25	39	138	5.51	19	5	ND	1	58	1	2	2	24	.46	.084	3	16	.24	28	.05	2	.29	.01	.08	5	44
MK-53-4-31374 -60+150	1	76	9	34	.1	19	20	227	1.99	9	5	ND	1	18	1	2	2	55	1.03	.074	5	21	.73	62	.61	2	.59	.01	.13	1	6
BR32-4-31611 -60+150	5	860	272	311	42.6	179	116	225	26.06	186	5	34	8	22	3	11	57	19	.41	.053	4	9	.20	7	.15	7	.30	.01	.01	22	99999 *
BR32-4-31612 -60+150	34	1236	885	871	9.3	76	144	153	17.20	637	105	ND	507	31	9	4	86	34	.98	.120	101	7	.17	14	.14	8	.43	.01	.04	103	117
BR-32-4-31510 -60+150	5	1062	156	471	5.4	183	126	257	24.30	213	5	3	9	23	6	3	2	43	.51	.051	5	6	.27	6	.25	2	.43	.01	.01	4	2953
MH84-4-31243 -60+150	9	86	11	46	.1	22	72	215	19.82	19	5	4	6	33	1	11	2	66	.34	.067	22	17	.32	9	.03	2	.38	.01	.01	1	8
DD24-4-31398 -60+150	3	801	50	33	.6	19	52	124	2.49	31	5	ND	23	22	1	3	2	20	.34	.039	13	20	.36	50	.07	6	.32	.01	.01	35	10
STD C/AU-S	18	56	43	132	7.1	67	28	925	3.85	43	16	7	36	47	18	14	21	58	.48	.093	38	54	.95	175	.07	34	1.88	.06	.14	11	49

* Gold values ≈ 10600 ppb.

SAMPLE#	Mo 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 %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Au** PPB
CC-29-4-31452 -150	1	538	16	57	.1	31	21	244	2.86	39	5	ND	10	326	1	2	2	55	2.29	.993	30	40	.67	61	.08	7	.64	.02	.08	73	3849
CC-29-4-31457 -150	7	557	36	52	3.3	25	25	323	3.49	92	5	12	8	634	1	2	2	88	5.96	1.850	55	29	.58	51	.07	9	.69	.02	.10	72	19892
DD054-31170 -150	6	193	29	53	.7	62	61	408	12.40	23	5	ND	5	42	1	2	2	64	1.18	.277	22	28	.47	27	.08	4	.67	.01	.03	1	150
DD054-31171 -150	5	772	55	82	5.1	43	239	150	14.33	71	65	ND	228	26	1	3	52	15	1.09	.224	19	5	.17	8	.06	3	.32	.02	.02	253	11215
GR-8-4-31328 -150	1	68	11	39	6.8	5	9	237	1.27	12	5	49	8	29	1	2	2	60	2.65	.286	10	8	.44	30	.22	17	1.52	.01	.01	7	12123
GR074-31081 -150	1	321	43	89	4.9	27	122	239	15.10	246	5	6	5	23	2	2	2	49	1.81	.270	11	4	.23	8	.13	8	1.01	.01	.02	1	20361
BMG-13-4-31055 -150	2	413	44	165	3.0	77	104	335	16.21	399	5	3	5	26	1	8	5	53	.86	.089	9	19	.49	9	.12	50	.74	.01	.02	1	5809
BMG-13-4-31057 -150	1	242	45	95	3.1	33	115	197	19.97	162	5	6	3	28	1	2	3	35	1.05	.157	7	6	.21	7	.12	5	.55	.01	.01	1	2622
LC824-31154 -150	3	107	14	68	5.3	11	11	219	2.12	49	5	21	5	36	1	2	2	58	.87	.149	11	20	.46	71	.12	5	.54	.01	.01	99	18225
LC824-31177 -150	2	138	18	53	6.5	12	10	168	1.99	43	5	22	13	56	1	2	2	44	1.27	.289	19	22	.32	66	.15	2	.48	.01	.04	204	20229
LC832-4-31085 -150	6	897	198	379	11.9	123	101	261	26.79	942	5	4	5	46	5	29	2	35	.62	.061	5	9	.22	4	.05	3	.33	.01	.04	36	19173
LC11-4-31155 -150	5	145	15	59	27.2	19	17	229	3.40	58	5	104	30	87	1	6	2	56	1.78	.420	31	15	.40	73	.14	7	.65	.02	.05	475	99999 *
CN17-3-31057 -150	15	1430	125	77	.6	28	41	156	2.96	166	5	2	440	50	1	2	19	32	4.10	1.021	79	11	.24	30	.12	17	.26	.01	.02	124	2238
CN10-4-31167 -150	1	156	10	32	.1	352	28	377	2.23	43	5	ND	14	16	1	2	2	17	.59	.153	10	30	5.17	51	.05	8	.23	.01	.02	1	60
NC20-4-31089 -150	3	190	15	133	.3	85	127	207	6.73	127	5	ND	73	25	1	2	7	19	1.16	.117	160	5	.20	31	.13	5	.29	.01	.02	23	194
NC214-31094 -150	5	179	34	59	1.0	31	103	86	4.83	179	40	ND	170	34	1	2	13	13	2.55	.457	42	4	.22	32	.09	7	.39	.02	.02	83	335
CC-29-4-31449 -150	3	1112	44	80	.6	49	77	276	11.05	111	5	ND	5	406	2	2	2	60	3.69	1.090	32	25	.45	14	.06	2	.30	.01	.09	21	1885
NK-53-4-31374 -150	1	117	27	68	.1	25	31	313	2.76	21	5	ND	21	129	1	2	3	43	3.75	.946	34	31	.77	50	.16	2	.67	.01	.11	2	1683
BR32-4-31611 -150	7	1259	119	256	38.2	205	130	368	24.15	328	5	28	17	64	2	6	15	24	1.25	.380	21	13	.34	6	.19	5	.54	.01	.03	36	77036
BR32-4-31612 -150	70	943	801	539	7.7	43	89	145	4.66	980	1300	ND	2012	33	6	6	170	37	1.60	.371	88	7	.11	29	.14	10	.38	.02	.04	396	1941
BR-32-4-31510 -150	7	1230	212	406	19.8	204	160	396	27.08	600	5	28	15	64	4	5	2	23	.98	.251	17	7	.22	7	.11	6	.39	.01	.02	1	13065
NM84-4-31243 -150	2	129	28	65	.1	17	38	319	5.56	27	5	ND	16	45	2	2	9	51	2.01	.675	70	16	.33	203	.10	2	.80	.02	.02	3	195
DD24-4-31398 -150	10	407	116	49	4.9	26	43	289	3.82	62	5	12	58	78	1	2	6	56	1.12	.187	47	18	.60	76	.09	2	.72	.01	.02	68	1924
STD C/AU-S	18	59	42	132	7.1	70	29	1029	3.96	42	22	7	36	47	18	15	22	58	.46	.094	37	54	.95	182	.07	34	1.92	.06	.14	11	52

* Gold value ≈ 125000 ppb

APPENDIX II

Sample Summary

BLUEBERRY MT. (GRAN 13)

SAMPLE NO.	SAMPLE TYPE	DESCRIPTION	MINERALIZATION
BM-13	31026 o/c	gabbro-diorite?dk. gray green w/white fsp(1-2mm)slighty siliceous	5-7% py locally as stringers
	31052 silt	coarse gravel, 5% org, grey-brwn	
	31053 silt	15-20% org, fast H2O ,green-brwn	
	31054 silt	<5%org, fast, gray-brwn,	
	31055 h.min.	fast, gray-brown	
	31056 silt	5-10% orgs., mod flow,med gray brown	
	31057 h.min.	mod flow, gray brown	
	31058 silt	<5%org, mod flow,gray-brown,	
	31059	no sample taken	
	31060 silt	20% org, fast flow, gray-brown	
	31061 silt	10% orgs, fast flow, dk brown,gravelly	
	31062 soil	5% org, no creek flow,med. brown 'B'	
	31063 soil	5-10%org,no flow, med. brown, 'B',fn silt-sand	
	31064 soil	10% org.,dk. brown, 'B', sandy	
	31065 soil	15% org, v.dk. brown,'B',silt-sand	
	31066 soil	20-25% org,dk.brown, silty sand and pebbles	
	31067 soil	10-15% org, dk. brown, 'B',silty-gravel	
	31068 soil	20%org,dk.brown 'B' silt and pebbles	
	31069 soil	25% org, black, 'B'?,coarse rksw/some dirt	
	31070 soil	10-15%, orgs,med. brown,sand,	
	31071 soil	10-15%org, mod flow, med brown,'B',clay-silt	

APPENDIX III

Statement of Qualifications

STATEMENT OF QUALIFICATIONS

I, Margaret D. McPherson, hereby certify that:

1. I am a graduate of the University of British Columbia, having been granted the degree of Bachelor of Sciences degree in Geology in 1987.

2. I have practiced my profession as a geologist in mineral exploration since 1987.

3. I am presently employed as a geologist with Homestake Mineral Development Company of #1000 - 700 West Pender Street, Vancouver, British Columbia.

4. The work done in the accompanying report was done under my supervision and with my participation.

5. I am the author/co-author of the above report.

6. I have no direct or indirect financial interest in any companies known by me to have an interest in the mineral properties described by this report, nor do I expect to receive any such interest.

Dated at Vancouver, B.C. this 10th day of August, 1989

Respectfully submitted

Margaret D. McPherson

I, Robert G. Carmichael of 4058 West 32 Avenue, Vancouver B.C. do hereby state that:

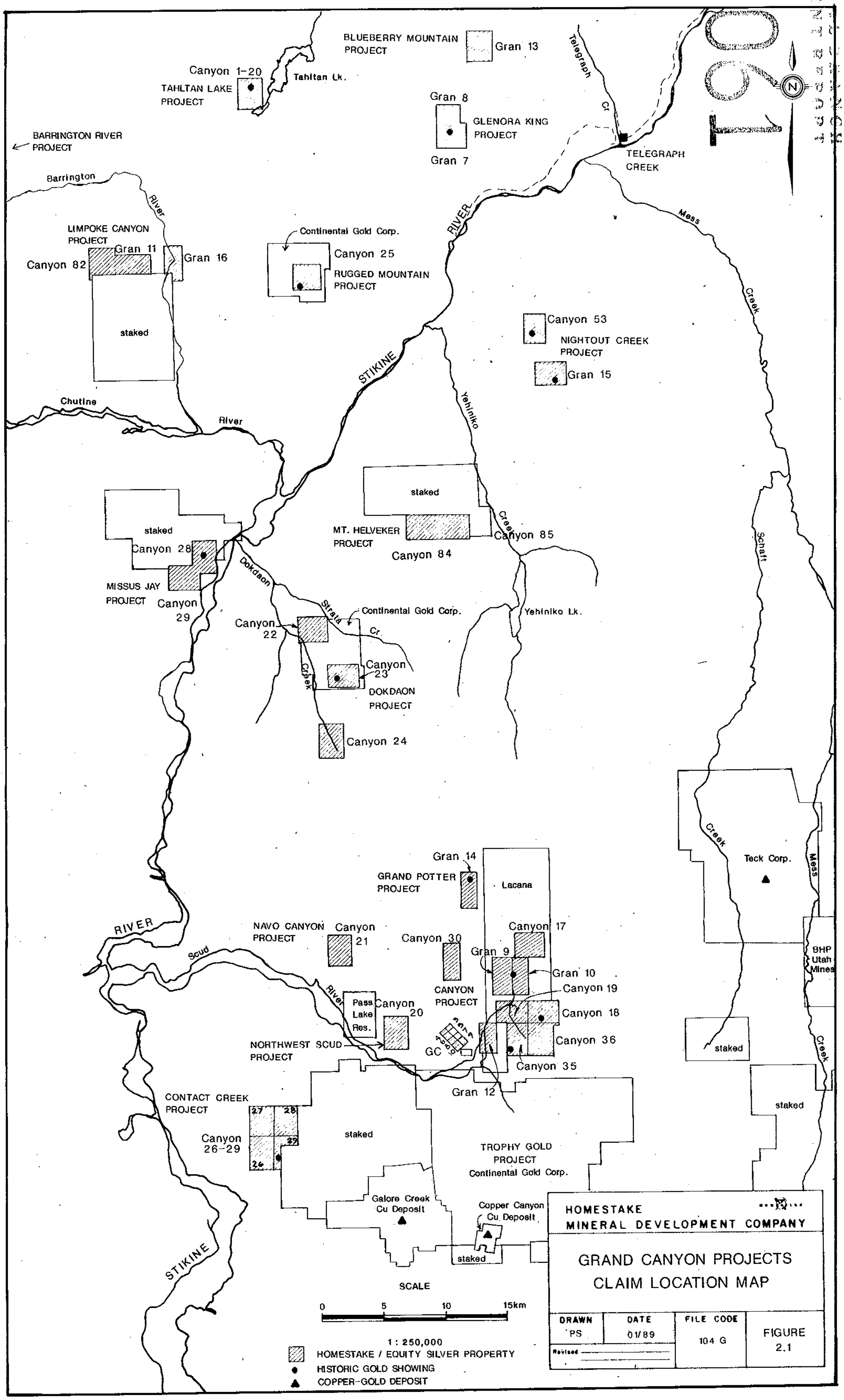
- I graduated with a Bachelor of Applied Science in Geological Engineering in 1987 from the University of British Columbia;

- I have been employed by Homestake Mineral Development Company since May of 1989;

- I was employed by Esso Minerals Canada Limited from May 1987 to February 1989;

- I was employed by Noranda Exploration Company during the summer months of 1985 and 1986.

Robert G. Carmichael
July 27 1989


BLUEBERRY MOUNTAIN PROJECT
Gran 13
Canyon 1-20
TAHLTAN LAKE PROJECT
Tahltan Lk.
Gran 8
GLENORA KING PROJECT
Gran 7
Telegraph Cr
TELEGRAPH CREEK
BARRINGTON RIVER PROJECT
Barrington River
LIMPOKE CANYON PROJECT
Gran 11
Gran 16
Canyon 82
staked
Continental Gold Corp.
Canyon 25
RUGGED MOUNTAIN PROJECT
Canyon 53
NIGHTOUT CREEK PROJECT
Gran 15
STIKINE
Yehiniko
Chutine
River
staked
Canyon 28
MISSUS JAY PROJECT
Canyon 29
staked
MT. HELVEKER PROJECT
Canyon 84
Canyon 85
Dokdaon
Strata
Continental Gold Corp.
Canyon 22
Canyon 23
DOKDAON PROJECT
Yehiniko Lk.
Canyon 24
Gran 14
GRAND POTTER PROJECT
Lacana
RIVER
Scud
NAVO CANYON PROJECT
Canyon 21
Canyon 30
CANYON PROJECT
Canyon 17
Gran 9
Gran 10
Canyon 19
Canyon 18
Canyon 36
Canyon 35
Pass Lake Res.
Canyon 20
NORTHWEST SCUD PROJECT
GC
Gran 12
CONTACT CREEK PROJECT
Canyon 26-29
staked
TROPHY GOLD PROJECT
Continental Gold Corp.
Galore Creek Cu Deposit
Copper Canyon Cu Deposit
staked
Teck Corp.
BHP Utah Mines
staked
staked
Mess
Creek
Schaft
Creek
Creek
STIKINE
HOMESTAKE MINERAL DEVELOPMENT COMPANY
GRAND CANYON PROJECTS
CLAIM LOCATION MAP
SCALE
0 5 10 15km
1 : 250,000
HOMESTAKE / EQUITY SILVER PROPERTY
HISTORIC GOLD SHOWING
COPPER-GOLD DEPOSIT
DRAWN PS
DATE 01/89
FILE CODE 104 G
Revised
FIGURE 2.1

360 000 E
361 000 E
362 000 N
131° 20' W
363 000 E
6 430 000 N
6 429 000 N
57° 59'N
6 428 000 N
6 427 000 N
6 426 000 N

GRAN 13

G13

swamp

31062 (0.1) (13)

31061 (0.2) (5)

NO OUTCROP

31060 (0.1) (38)

M (Si - Py) rusty Andesite Volcanic

31026 (1.0) (21)

31058 (0.1) (340)

31057 (0.7) (125) (3.1) (2622)

31055 (0.5) (350) (1.0) (2167)

31056 (0.1) (62) (3.0) (5809) (3.3) (146)

31065 (0.3) (10)

Lake

31063 (?) (?)

31064 (0.2) (20)

31054 (0.2) (16)

31053 (0.1) (87)

dry

31052 (0.2) (61)

31071 (0.2) (18)

31070 (0.2) (14)

31069 (0.2) (29)

31068 (0.6) (18)

31067 (0.2) (4)

31066 (0.7) (10)

4243

LEGEND

⊗	Rock Sample
▲	Silt
■	Soil
●	Heavy Mineral
•	Mapping Station
– –	Geological Contact/Limit of Outcrops
∿∿∿	Fault
◌	Outcrop

Ag-ppm Au-ppb

⊗ 31395 (0.5) (93)
Sample Number
Sample Site

● 31395 (0.5) (93)
(1000) (10000) Heavy Mineral - 150 mesh
(500) (2000) Heavy Mineral - 60 + 150 mesh

Py	Pyrite
Po/Pr	Pyrrhotite
Mg/Mag	Magnetite
qtz vn	Quartz Vein
Sil	Silicified
EP	Epidote
Bi	Biotite
cp	Calchopyrite
F.G	Fine Graned

SCALE 1: 10,000

0 100 200 300 400 600 800
METERS

HOMESTAKE MINERAL DEVELOPMENT COMPANY
BLUEBERRY PROPERTY
B.C.
(GRAN 13)

GEOLOGY AND SAMPLE LOCATIONS

DRAWN	DATE	FILE CODE	
P.H.	JULY, 31, 1989	104 G/14W	FIG. 4.1
Revised			