

LOG NO.	0914	89
TITLE		
FILE NO.		

1989 Prospecting Report
on the
DOKDAON PROJECT
CANYON22 Claim

FILMED

Liard Mining Division
NTS: 104G/12
Lat: 57 32' N
Long: 131 33' 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

R.G. Carmichael
June 27, 1989

GEOLOGICAL BRANCH
ASSESSMENT REPORT

19,076

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SUMMARY

The CANYON22 property is located near Dokdaon Creek in the Stikine region of British Columbia. The property consists of one claim totalling 20 units and is owned by Homestake Mineral Development Company and Equity Silver Mines Ltd.

Work on the property was carried out on June 7, 1989 and involved prospecting as well as the collection of 1 rock sample and 15 soil samples.

One day of mapping along the cliffs in the northeastern portion of the claim is recommended. Additional work will be dependent on the sample analysis results.

1.0 INTRODUCTION

1.1 Location and Access

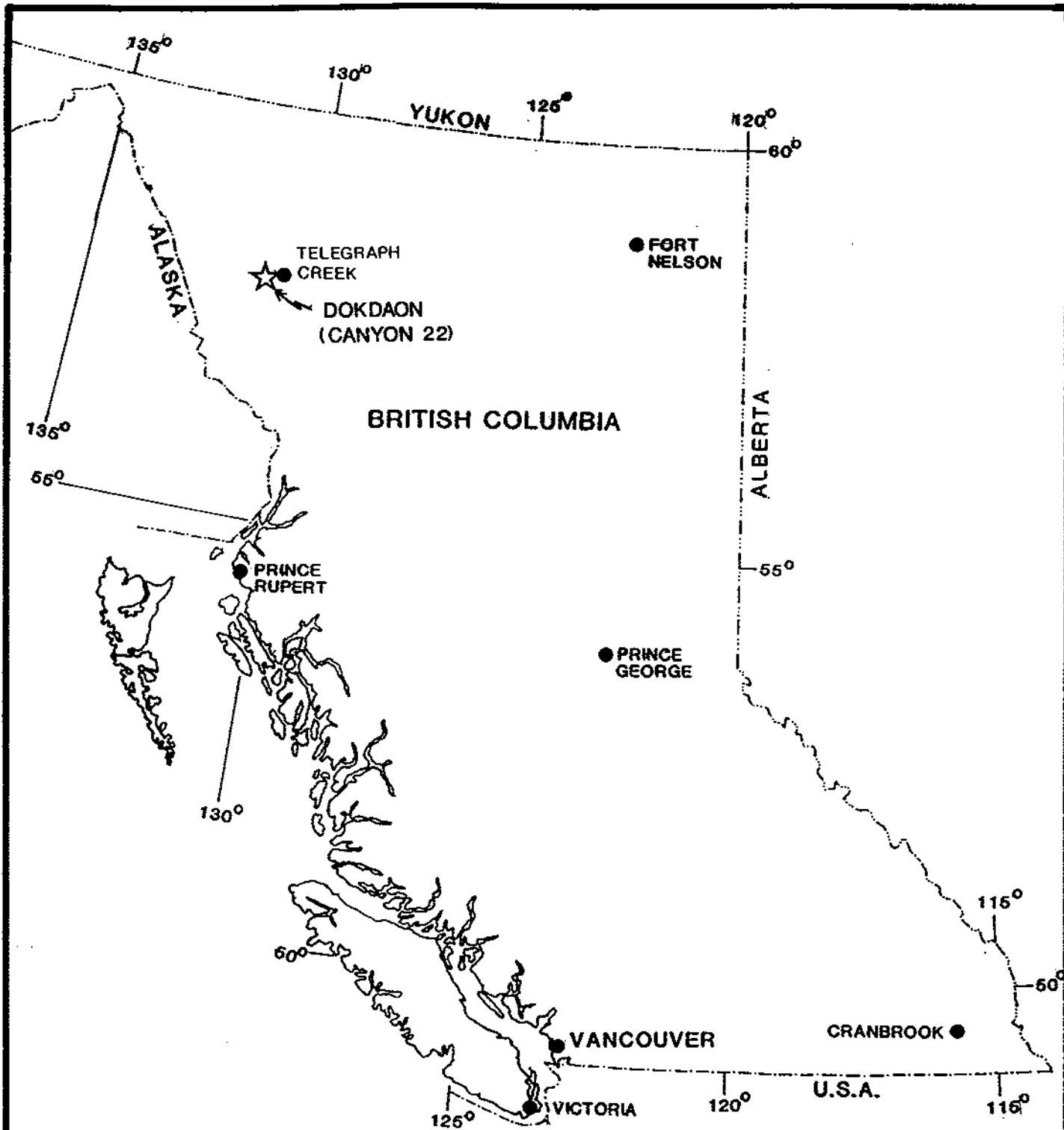
The CANYON22 property is located in the Stikine region of northwestern British Columbia approximately 45 km southwest of the village of Telegraph Creek (Figure 1.1). The claim is centred at 57 32' N latitude and 131 33' W longitude on NTS map sheet 104G/12.


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.

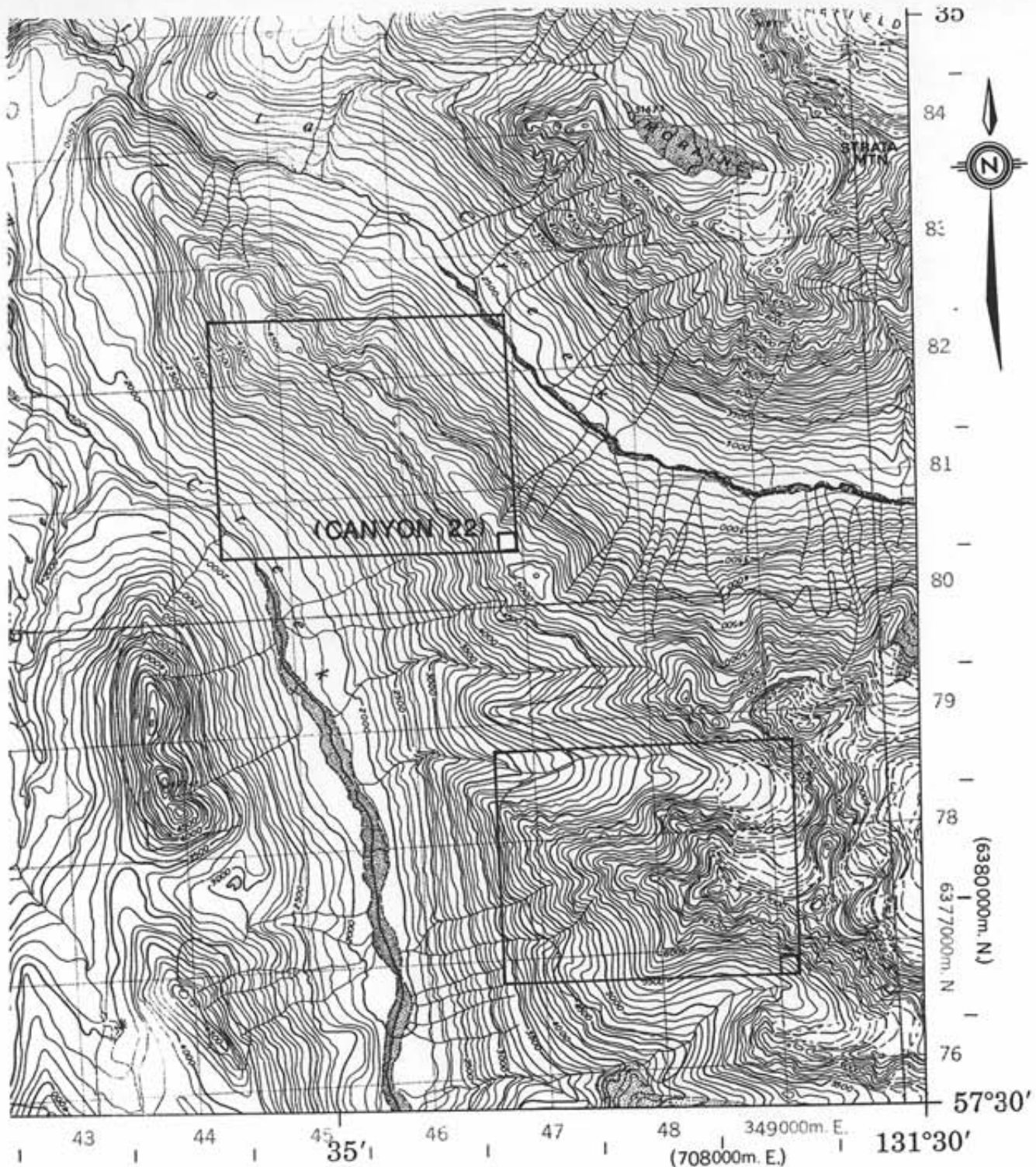
1.2 Claim Status

The CANYON22 property consists of 1 claim totalling 20 units. The claim was recorded on June 28, 1988 and is owned by Homestake Mineral Development Company and Equity Silver Mines Ltd. Assuming acceptance of this assessment work, claim data will be as follows:

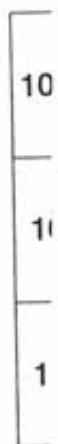
CLAIM	UNITS	RECORD #	RECORDING DATE	EXPIRY DATE
CANYON22	20	4726	June 28, 1988	June 28, 1990



HOMESTAKE MINERAL DEVELOPMENT COMPANY 		
GRAND CANYON PROJECT, B.C. DOKDAON (CANYON 22)		
LOCATION MAP		
DRAWN KMc	DATE 11/87	FILE CODE 104G
Revised _____		FIGURE 1,1



REVI:




30
84
83
82
81
80
79
78
76

(6380000m. N)
6377000m. N

57°30'

43 | 44 | 45 | 46 | 47 | 48 | 349000m. E. | 131°30'
35' | (708000m. E.)

SCALE 1: 50,000

 HOMESTAKE MINERAL DEVELOPMENT COMPANY			
DOKDAON (CANYON 22)			
DETAILED CLAIM LOCATION			
DRAWN P.H.	DATE Aug., 10, 89	FILE CODE 104G/5, 12	FIG. 2.2
Revised _____			

1.3 Physiography

The CANYON22 property straddles a steep, northwest trending ridge between Dokdaon and Strata Creeks. Elevations range from 390m in the creeks to 1315m on the ridge top. Both slopes down to the creeks are steep and the northeast slope is quite precipitous. Vegetation ranges from thick forest and slide alder in the creeks and lower slopes, to grassy meadows and alpine tundra at the ridge top.

1.4 Exploration History

Previous work in this area was first done in 1969 on the LLK, EWK and DOK claims. Mapping and soil sampling was carried out by Alrae Engineering Ltd. in 1970. The soil survey identified some copper-molybdenum anomalies. Mapping discovered minor copper mineralization over much of the property as well as minor molybdenite in quartz veins.

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, soil 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.

132°00' 45' 30' 15' 131°00'
58°00'



0
6
12
18
Kilometers

1:250,000
MAP MODIFIED FROM SOUTHER, 1971

			
HOMESTAKE MINERAL DEVELOPMENT COMPANY			
GRAND CANYON PROJECT TELEGRAPH CREEK B.C.			
DOKDAON (CANYON 22) REGIONAL GEOLOGY			
DRAWN MJD	DATE 08/89	FILE CODE	FIGURE 3.1

LEGEND

- QUATERNARY**
PLEISTOCENE AND RECENT
- 29 Fluvialite 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 sub-volcanic 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 volcanoclastic 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, greywacks, siltstone; basaltic and andesitic volcanic rocks, peperites, pillow-breccia and derived volcanoclastic 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
- TRIASSIC**
UPPER TRIASSIC
- 9 Undifferentiated volcanic and sedimentary rocks (units 5 to 8 inclusive)
 - 8 Andite-andesite flows, pyroclastic rocks, derived volcanoclastic 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
- 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, orinoidal 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) + / x
- Anticline
- Syncline
- Fault (defined and approximate, assumed)
- Thrust fault, teeth on hanging-wall side (defined and approximate, assumed),
- Fossil locality
- Mineral property
- Glacier

INDEX TO MINERAL PROPERTIES

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

GRAND CANYON PROJECT B.C.
**GEOLOGICAL
 LEGEND**

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 property is underlain by Stuhini Group massive andesite flows and banded tuffaceous sediments which have been intruded by numerous syenite dykes and a small stock. Fractures in all lithologies commonly contain epidote and very minor malachite. Flow banded felsic dykes form conspicuous light-colored bands across cliffs in the northeastern section of the property. The rocks adjacent to these dykes have been intensely silicified and contain up to 5% disseminated pyrite.

A quartz monzonite intrusive is exposed in a gossanous creek valley 800m south of the property. This rock is itself intruded by diorite and feldspar porphyry dykes. The pyrite content of this rock commonly ranges from 1 to 10% and small (10 x 40 cm) pods of coarse grained massive pyrite were seen. Pyrite is most abundant adjacent to the diorite dykes.

4.0 GEOCHEMISTRY

Two types of geochemical samples (rock and soil) were collected during the work program. Sample locations and results are plotted on Figure 4.1.

4.1 Analytical Methods

One rock sample was collected from the property and shipped to Acme Analytical Labs. Thirty element ICP and gold by fire assay was done on each sample.

Fifteen soil samples were collected using a maddock, placed in kraft paper bags and air dried. It was shipped to Acme Analytical Labs where 30 element ICP and gold by fire assay was done.

All sample locations were marked in the field with metal tags and orange flagging tape.

4.2 Results

Sample 31420 is a grab sample of a quartz - carbonate altered intrusive rock with 5% disseminated pyrite. Trace malachite and chalcopryrite were also noted. This sample contained 695ppm Cu, 150ppm Zn, 21ppm As, 0.7ppm Ag, 13ppm Sb and 93ppb Au.

Fifteen soil samples were collected at 50m intervals along the 950m contour on the southwest flank of the ridge. The most interesting of these samples were:

31188 - 120ppm Pb, 766ppm Zn, 2.0ppm Ag, 17ppm Cd, 44ppb Au
- this may be significant in light of the massive galena float reported in an old assessment report.

31189 - 131ppb Au

In general, background copper and zinc values are high (>200ppm Cu and >120ppm Zn). The two samples mentioned above are 50m apart and outlining an obvious area for detailed follow-up.

5.0 CONCLUSIONS AND RECOMMENDATIONS

Due to a limited amount of time, only the central ridge on the claim was mapped. The only mineralization seen in this area was minor malachite staining on some of the fractures within the andesite flows. However, the geological setting of the property is encouraging and disseminated pyrite is common throughout the rocks.

A minimum of one to two more days should be spent on the property in order to locate the showings described in the reports of previous work, and to map the cliffs on the northeast flank of the ridge. Detailed prospecting and soil sampling will be centered on the area where samples 31188 and 31189 were collected and extend uphill from the sample sites.

6.0 REFERENCES

B.C. Ministry of Mines, Assessment Report # 3029, 3846, 3847 and 9617.

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 days @ \$165/day	\$ 165.00
Junior Assistant	1 days @ \$ 90/day	\$ 90.00

Food and Accommodation

2 mandays @ \$ 90/day	\$ 180.00
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Geochemical Analysis + Freight

Rock Samples	1 @ \$ 25/sample	\$ 25.00
Soil Samples	15 @ \$ 25/sample	\$ 375.00
Supplies		\$ 200.00

Mob/Demob	\$ 200.00
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Helicopter Support (including fuel)

1.5hrs @ \$700/hr	\$1050.00
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Report Preparation

1 day @ \$165/day	\$ 165.00
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TOTAL	\$2450.00
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APPENDIX I
Analytical Results

GEOCHEMICAL ANALYSIS CERTIFICATE

*MASTER
N/S: STAKINE/DORR/DON
11. BC. 1046
RMB/ACT.*

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 HM PK SR CA P LA CR NG BA TI B W AND LIMITED FOR NA X AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: ROCK AU* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

DATE RECEIVED: JUN 29 1989 DATE REPORT MAILED: *July 5/89* SIGNED BY: *C. Long* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

HOMESTAKE MINERAL DEV. PROJECT 5711 DD File # 89-1851

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Tb	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Au*
	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	%	PPM	PPM	%	PPM	%	PPM	%	%	PPM	PPB	
DD-22-1 31421	2	118	5	103	.1	28	23	661	8.21	2	5	ND	1	73	1	2	2	111	1.90	.105	3	53	1.67	25	.01	2	2.37	.03	.10	1	47
DD-22-1 31422	4	265	7	20	.9	56	68	169	10.38	5	5	ND	1	154	1	2	2	39	.88	.024	2	21	.39	1	.12	2	.81	.01	.01	1	30
DD-22-1 31423	3	697	12	55	.6	6	23	644	6.81	23	5	ND	1	29	1	4	2	47	2.03	.066	5	13	.49	15	.01	7	.72	.04	.09	1	13
DD-22-1 31424	1	21	3	56	.2	8	12	520	3.64	2	5	ND	3	38	1	4	2	27	2.34	.058	6	10	.33	264	.01	9	1.18	.02	.23	1	3
DD-22-1 31425	16	7	2	2	.1	1	1	17	.48	2	5	ND	10	2	1	2	2	3	.03	.011	6	16	.01	93	.01	2	.30	.01	.17	2	2
DD-22-1 31426	3	9	15	5	.1	4	2	23	2.30	2	5	ND	2	12	1	2	2	4	.01	.015	2	3	.01	43	.01	20	.16	.03	.06	4	2
DD-22-1 31427	3	31	9	82	.1	22	17	635	4.67	2	5	ND	1	31	1	2	2	85	.96	.098	11	48	1.73	96	.26	2	2.33	.03	.09	1	4
STD C/AU-R	18	58	38	131	7.1	67	30	954	4.03	37	17	6	36	49	18	16	22	58	.48	.089	38	55	.82	178	.07	32	1.92	.06	.13	12	520

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 NG 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 P3 SILT AU* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

MASTER
NTS: STIKWET/DOAKDOAN
11-BC-1046
QMB/ACCT.

DATE RECEIVED: JUN 29 1989 DATE REPORT MAILED: *July 5/89* SIGNED BY... *C. Long* .D.TOTE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

HOMESTAKE MINERAL DEV. CO. PROJECT 5711 DD-22 #16 File # 89-1832 Page 1

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Tb	St	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Au*
	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	%	PPM	PPM	%	PPM	%	PPM	%	%	%	%	PPM	PPM
0022-1 31420	7	695	32	150	.7	7	6	534	2.28	21	5	ND	4	117	1	13	2	17	4.61	.080	16	7	.07	31	.01	3	.26	.01	.15	1	93

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Tb PPM	St 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
31184	5	616	14	87	.1	58	80	2368	18.57	109	5	ND	1	10	1	2	2	158	.20	.205	18	38	.05	181	.01	2	.84	.01	.12	1	43
31186	3	85	21	129	.3	19	14	506	6.21	7	5	ND	1	40	1	2	4	127	.34	.074	8	36	.91	98	.14	7	2.48	.02	.07	1	9
31187	5	277	38	235	.4	22	27	2621	7.02	24	5	ND	1	35	2	4	2	144	.32	.102	12	42	.80	113	.11	2	2.22	.01	.07	1	12
31188	6	421	120	766	2.0	44	31	4371	5.60	48	5	ND	1	133	17	6	2	94	1.77	.158	21	38	.66	498	.09	9	1.75	.01	.15	1	44
31189	2	141	34	217	.2	42	22	749	5.99	9	5	ND	1	40	1	2	2	132	.59	.088	8	59	1.19	103	.14	6	2.36	.02	.08	1	131
31190	3	215	32	121	.4	57	23	804	5.83	17	5	ND	1	38	1	3	2	127	.56	.071	9	67	1.52	66	.12	12	2.20	.02	.10	1	21
31191	3	250	35	107	.2	48	22	842	5.86	13	5	ND	1	40	1	2	2	127	.63	.061	9	64	1.43	92	.12	2	2.15	.02	.11	1	47
31192	4	269	33	187	.1	52	22	1397	5.69	11	5	ND	1	38	1	2	2	123	.53	.147	11	63	1.24	98	.10	2	2.34	.01	.12	1	42
31193	6	214	33	152	.6	51	27	2098	7.15	10	5	ND	1	31	1	2	4	135	.42	.112	12	66	1.04	68	.22	3	2.48	.02	.11	1	6
31194	3	274	30	145	.1	71	26	1367	5.63	10	5	ND	1	42	1	2	2	120	.52	.075	9	81	1.62	64	.13	3	2.19	.01	.12	1	15
31195	4	121	32	254	.1	31	15	1335	5.28	10	5	ND	1	39	1	2	2	117	.42	.066	12	52	.89	82	.13	2	1.98	.01	.09	1	20
31196	12	168	16	85	.1	19	7	331	2.57	2	5	ND	1	36	1	2	2	52	.58	.093	6	28	.40	71	.06	2	1.01	.01	.11	1	4
31197	2	90	37	103	.3	26	20	824	5.55	10	5	ND	1	47	1	2	5	134	.50	.055	8	46	.76	68	.16	6	1.56	.01	.09	1	15
31198	6	399	84	182	.3	97	32	1940	6.56	18	5	ND	1	45	1	2	2	136	1.01	.129	14	114	1.63	264	.10	2	2.33	.01	.27	1	11
31199	5	227	57	130	.1	30	17	1004	5.16	25	5	ND	3	48	1	2	2	116	.43	.037	12	49	1.10	82	.12	2	2.11	.01	.11	1	26
31200	4	297	46	200	.4	88	23	2995	2.57	4	5	ND	1	60	7	2	2	62	2.95	.125	8	91	.81	341	.05	3	1.03	.01	.19	1	6
STD C/AU-S	18	58	38	131	7.1	67	30	954	4.03	37	17	6	36	49	18	16	22	58	.48	.089	38	55	.82	178	.07	32	1.92	.06	.13	12	53

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	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*
	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	%	PPM	PPM	%	PPM	%	PPM	%	%	%	PPM	PPB
31183	4	275	12	87	.6	20	25	818	5.77	15	5	ND	3	76	1	2	2	60	1.11	.089	12	18	.77	265	.02	2	1.39	.01	.09	1	1
31165	1	588	14	233	.5	58	45	927	7.77	7	5	ND	1	82	1	2	2	61	1.92	.162	40	13	.48	126	.01	3	1.77	.01	.07	1	13

APPENDIX II
Sample Summary

SAMPLE NO.	SAMPLE TYPE	DESCRIPTION	MINERALIZATION
DD-22	31420 o/c	qtz-carb alt'd intrusive(?), gray-pink 50%qtz, 30%cc	5%py, tr cpy and malachite
	31186 soil	minor org., lgt brown, 'B'	
	31187 soil	minor org, light brown, 'B'	
	31188 soil	roots ,dk. brown to black, 'A'	
	31189 soil	minor roots, lgt brown, 'B'	
	31190 soil	minor roots, lgt. brown, 'B'	
	31191 soil	minor roots, lgt brwn, 'B'	
	31192 soil	minor roots, dk brown, 'B'	
	31193 soil	minor roots, brown red tinge, 'B'	
	31194 soil	minor roots, lgt brown, 'B'	
	31195 soil	minor roots, brown, 'B'	
	31196 soil	minor roots, dk brown to black, 'A'	
	31197 soil	minor roots, brown, 'B'	
	31198 soil	minor roots, brown, 'A-B'	
	31199 soil	minor roots, lgt brown, 'B'	
	31200 soil	minor orgs, black, 'A'	

APPENDIX III

Statement of Qualifications

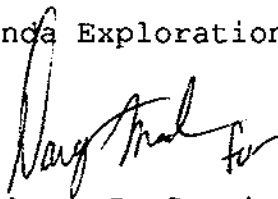
I, Robert G. Carmichael of 4058 West 32 Avenue, Vancouver B.C. do hereby state that:

- 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;

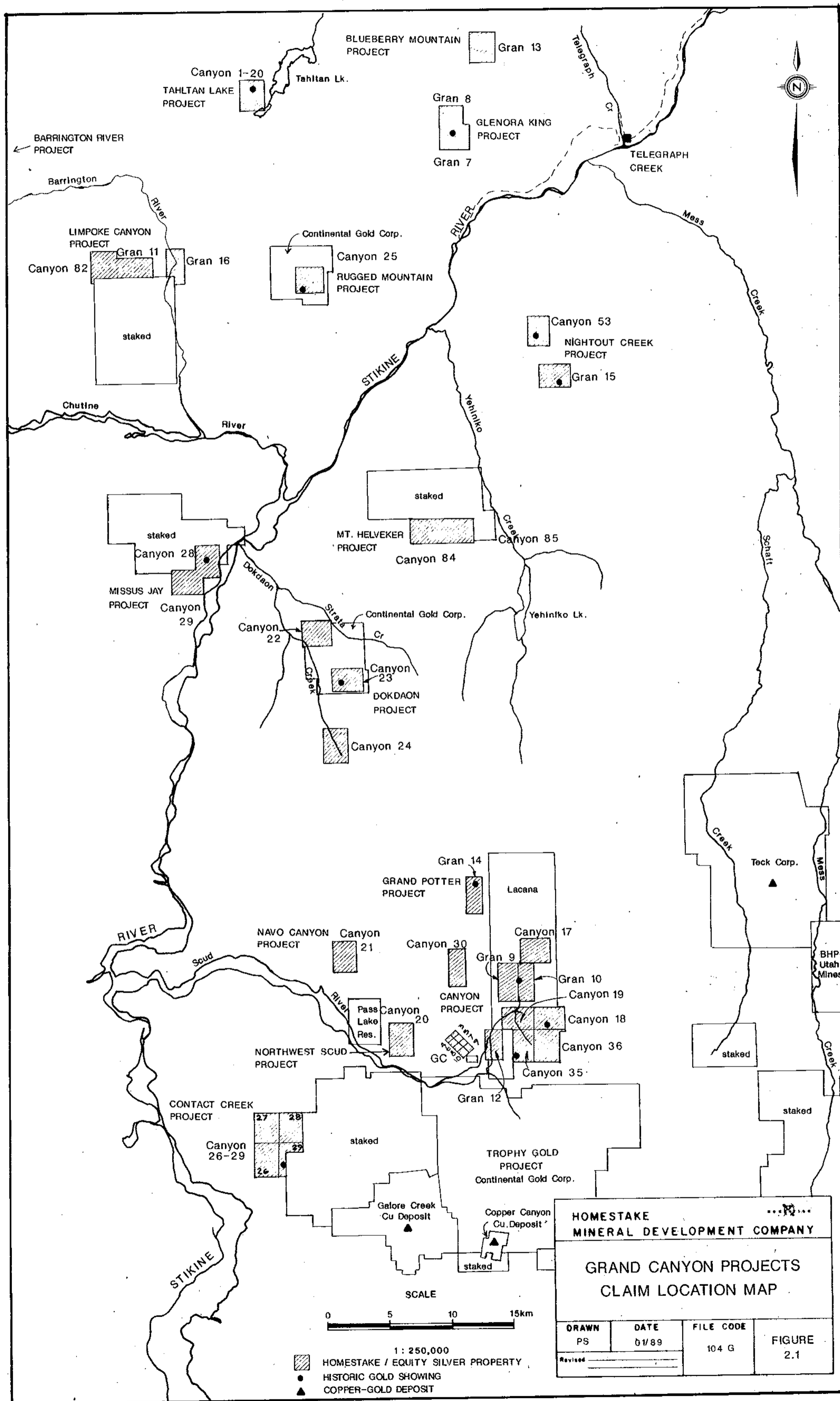
- I was employed by Esso Minerals Canada Limited from May 1987 to February 1989;

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



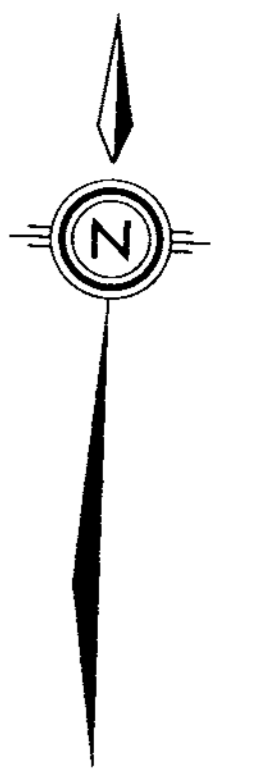
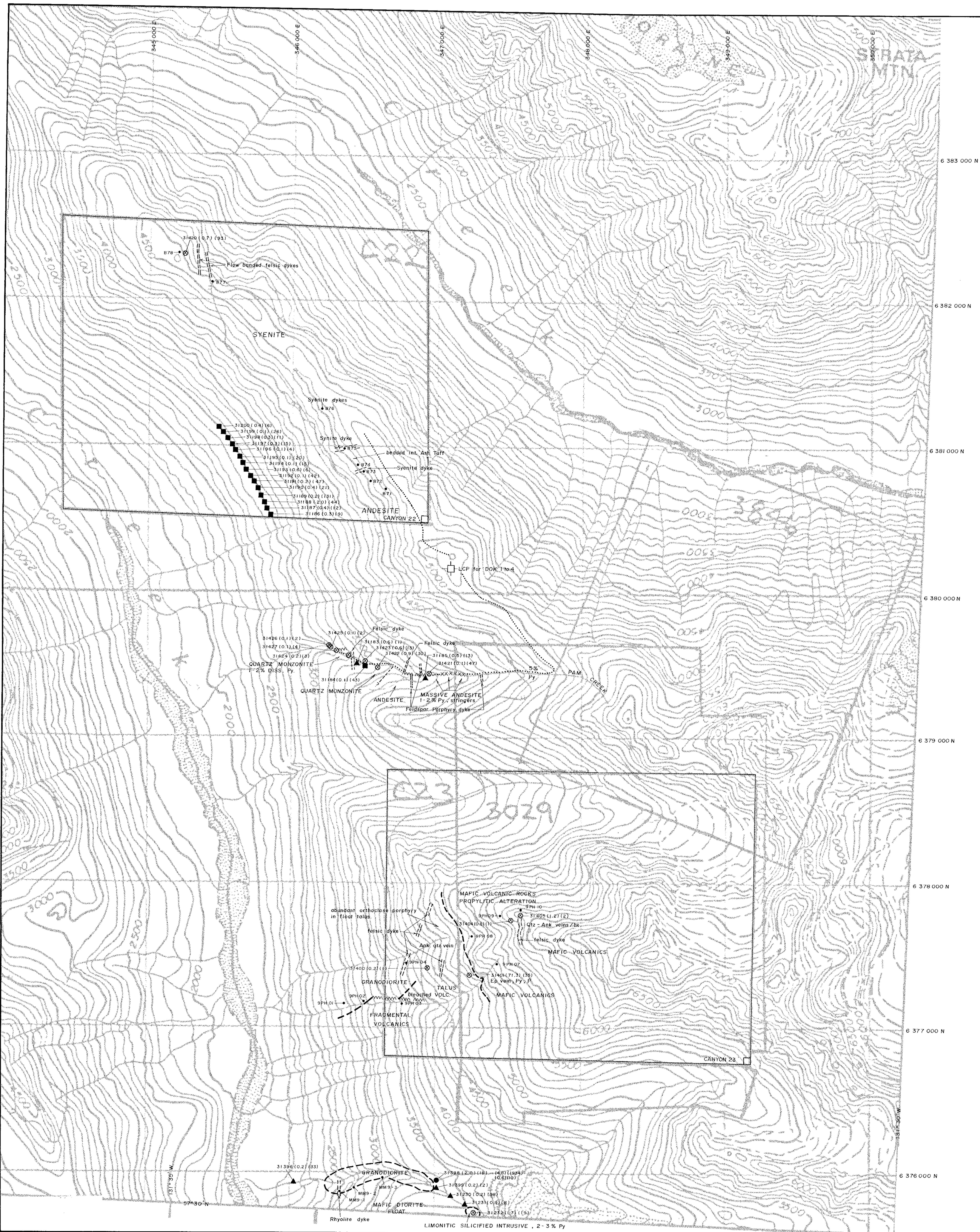
Robert G. Carmichael
July 27 1989

19,076



HOMESTAKE MINERAL DEVELOPMENT COMPANY			
GRAND CANYON PROJECTS CLAIM LOCATION MAP			
DRAWN PS	DATE 01/89	FILE CODE 104 G	FIGURE 2.1
Revised _____			

SCALE
0 5 10 15km
1: 250,000
 ▨ HOMESTAKE / EQUITY SILVER PROPERTY
 ● HISTORIC GOLD SHOWING
 ▲ COPPER-GOLD DEPOSIT



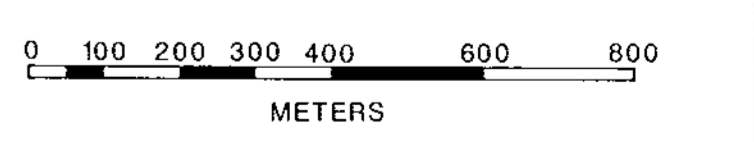
LEGEND

- ⊙ 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 - 100 mesh (500) (2000) Heavy Mineral - 60 + 100 mesh
- Py Pyrite
- PoPr Pyrrhotite
- Mg/Mag Magnetite
- qtz vn Quartz Vein
- Sil Silicified
- EP Epidote
- Bi Biotite
- cp Calcophyrite
- F.G Fine Grained

GEOLOGICAL BRANCH
ASSESSMENT REPORT

19,076

SCALE 1:10,000



HOMESTAKE MINERAL DEVELOPMENT COMPANY DOKDAON PROPERTY B.C. (CANYON 22)			
GEOLOGY AND SAMPLE LOCATIONS			
DRAWN P.M.	DATE JULY 26, 1989	FILE CODE 104 G/12	FIG. 4.1

LIMONITIC SILICIFIED INTRUSIVE, 2-3% Py