REPORT OF ACTIVITIES ON THE SOUTH SCUD PROPERTY (Canyon 18, 19, 35 and 36)

LIARD MINING DIVISION
NTS: 104 G 3 and 6

OWNERS: Homestake Mineral Development Company
1000 - 700 West Pender Street
Vancouver, B.C.
and

Equity Silver Mines Ltd.
Suite 13 - 1155 Melville Street
Vancouver, B.C.

OPERATOR: Homestake Mineral Development Company

Darcy Marud
November,1990

Distribution
HMDC - original
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Province of British Columbia — Ministry of Energy, Mines and Petroleum Resources

ASSESSMENT REPORT TITLE PAGE AND SUMMARY

TYPE OF REPORT/SURVEY(S): Geological / Physical — TOTAL COST: 6314.50

AUTHOR(S): DARCY MARUD — SIGNATURE(S): Darcy Marud

DATE STATEMENT OF EXPLORATION AND DEVELOPMENT FILED: ..... YEAR OF WORK: 1987

PROPERTY NAME(S): SOUTH SCUP PROPERTY

COMMODITIES PRESENT:

B.C. MINERAL INVENTORY NUMBER(S), IF KNOWN:

MINING DIVISION: LIARD — NTS: 104 G/3 and 6

LATITUDE: 57° 15' N — LONGITUDE: 131° 17° W

NAMES and NUMBERS of all mineral tenures in good standing (when work was done) that form the property (Examples: TAX 1-4, FIRE 2 (12 units); PHOENIX (Lot 1706); Mineral Lease M 123; Mining or Certified Mining Lease ML 12 (claims involved)):

Canyon 18 (46.74) - 20 units
Canyon 19 (4675) - 20 units
Canyon 35 (4735) - 20 units
Canyon 36 (4736) - 20 units

OWNER(S)

(1) Homestake Mineral Development Company

(2) Equity Silver Mines LTD

MAILING ADDRESS

1000 - 700 West Pender Street, Vancouver B.C. V6C 1G8

Ste 13 1155 Melville Street, Vancouver B.C. V6E 4C4

OPERATOR(S) (that is, Company paying for the work)

(1) Homestake Mineral Development Company

(2)

MAILING ADDRESS

As above

SUMMARY GEOLOGY (lithology, age, structure, alteration, mineralization, size, and attitude):

The property ranges in age from Permian limestone to middle-late Triassic intermediate intrusive of the Hickman Pluton. A fault contact exists between the Permian limestone and older mafic volcanics on the western border. The intrusive is strongly carbonate altered and the Hickman Pluton contains pockets of undifferentiated rocks (mafic to ultramafic).

REFERENCES TO PREVIOUS WORK: BC Assessment report # 19074

(over)

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS	TOTAL COST	COST APPORTIONED
GEOLOGICAL (scale, area)				
Ground	1:5000 1km², 1:100 100m²	Canyon 35		2114.5
Photo				
GEOPHYSICAL (line-kilometres)				
Ground				
Magnetic				
Electromagnetic				
Induced Polarization				
Radiometric				
Seismic				
Other				
Airborne				
GEOCHEMICAL (number of samples analysed for ....)				
Soil				
Silt				
Rock	Brock gold + 30 element ICP	Canyon 35		200
Other				
DRILLING (total metres; number of holes, size)				
Core				
Non-core				
RELATED TECHNICAL				
Sampling/assaying				
Petrographic				
Mineralogic				
Metallurgic				
PROSPECTING (scale, area)				
PREPARATORY/PHYSICAL				
Legal surveys (scale, area)				
Topographic (scale, area)				
Photogrammetric (scale, area)				
Line/grid (kilometres)				
Road, local access (kilometres)	25 m²	Canyon 35		4000
Trench (metres)				
Underground (metres)			TOTAL COST	6314.50

FOR MINISTRY USE ONLY	NAME OF PAC ACCOUNT	DEBIT	CREDIT	REMARKS:
Value work done (from report)				
Value of work approved				
Value claimed (from statement)				
Value credited to PAC account				
Value debited to PAC account				
Accepted Date	Rept. No.			Information Class

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7.0 SUMMARY AND RECOMMENDATIONS

The South Scud property is located approximately seventy-two kilometers south of Telegraph Creek, B.C. and ten kilometers north of Galore Creek. During the period September 4 to September 7, 1989 a crew of Homestake personnel mapped, sampled and trenched two showings on the property.

The Ultramafic Fault Zone is located along a major regional reverse fault structure in the southwest corner of the property. The fault has brought pre Permian Ultramafic rocks and Permian limestones in contact with Triassic to Upper Triassic volcanic rocks and in the process created a plumbing system for hydrothermal fluids. That such fluids have migrated along this structure is evident in the strong alteration of the ultramafic rocks to an assemblage of quartz-carbonate-mariposite $\pm$ pyrite. The intensity of alteration in the Permian limestones and Triassic volcanic rocks however, is weak and may mean the South Scud property is located a long distance away from the hydrothermal fluid source. The relatively low precious metals values from this zone also support this conclusion.

The SB zone is located along a contact between a fine-grained mafic dyke and granodiorite at the Hickman Batholith. Channel samples of portions of the vein exposed by hand trenching returned anomalous gold values to 218 ppb gold and antimony values >2000ppb with elevated arsenic and silver. The vein pinches out to the northwest but is still open to the southeast.

Further mapping and sampling are recommended to find extensions of both the Ultramafic Fault Zone and SB zones. Particular attention should be paid to possible metal zonation at the SB zone. A program of selective mapping and sampling is also recommended for the area around where sample 31757 was collected.

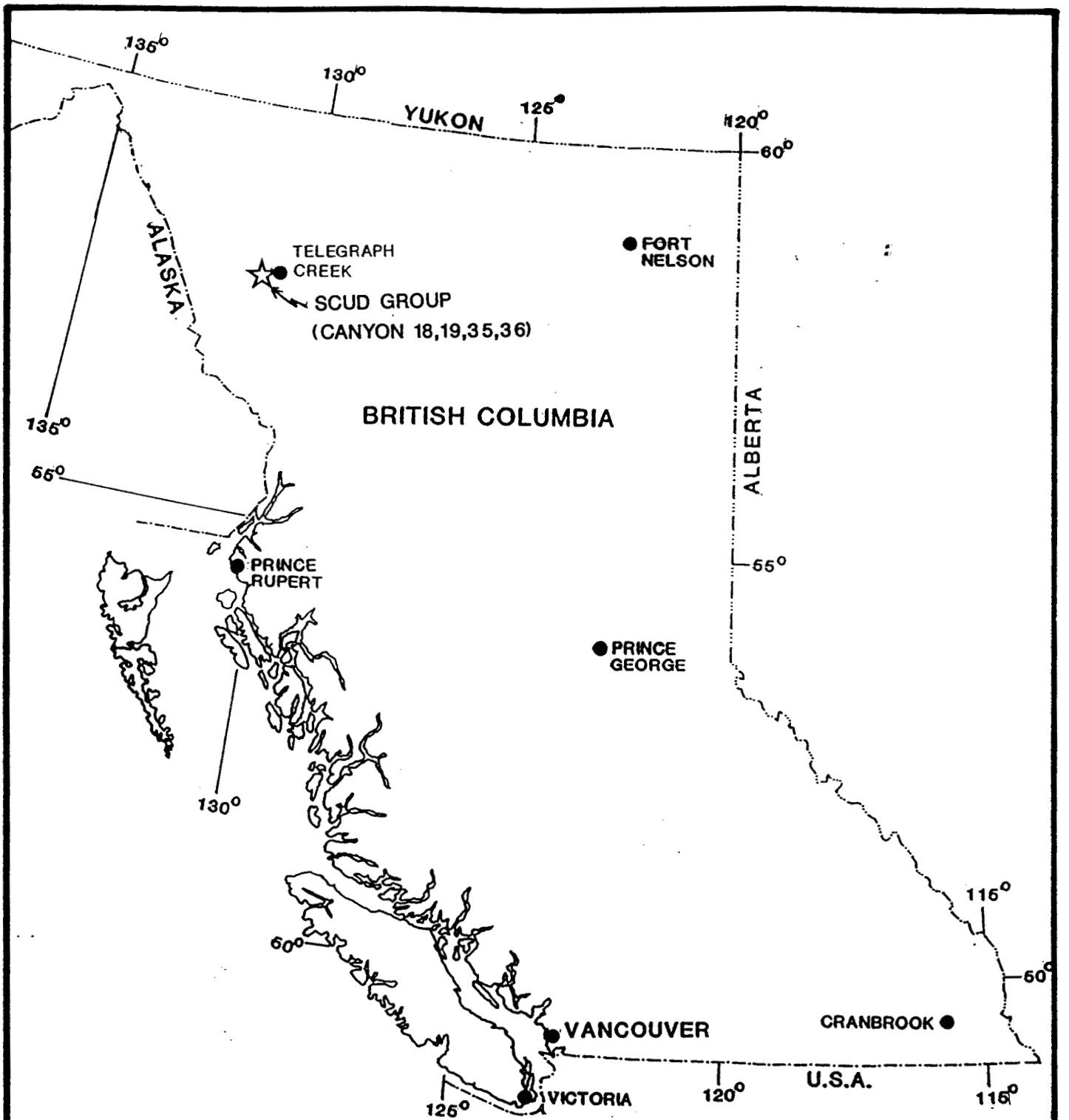
1.0 INTRODUCTION

1.1 LOCATION

The property is located approximately 72 kilometres south of Telegraph Creek (Figure 2.1 and 2.2). The claims are centred at 57° 15' north latitude and 131° 17' west longitude on NTS map sheet 104G 3 and 6.

1.2 PHYSIOGRAPHY

The property is located on a steep north - northwest sloping mountain that ranges in elevation from 450 meters at the base to 2300 meters at its highest point. A steep sided glacial valley bisects the property along a southeast-northwest axis. Treeline is at about 1200 meters; vegetation consists of spruce trees with alders at lower elevations and sub alpine flora at higher elevations..



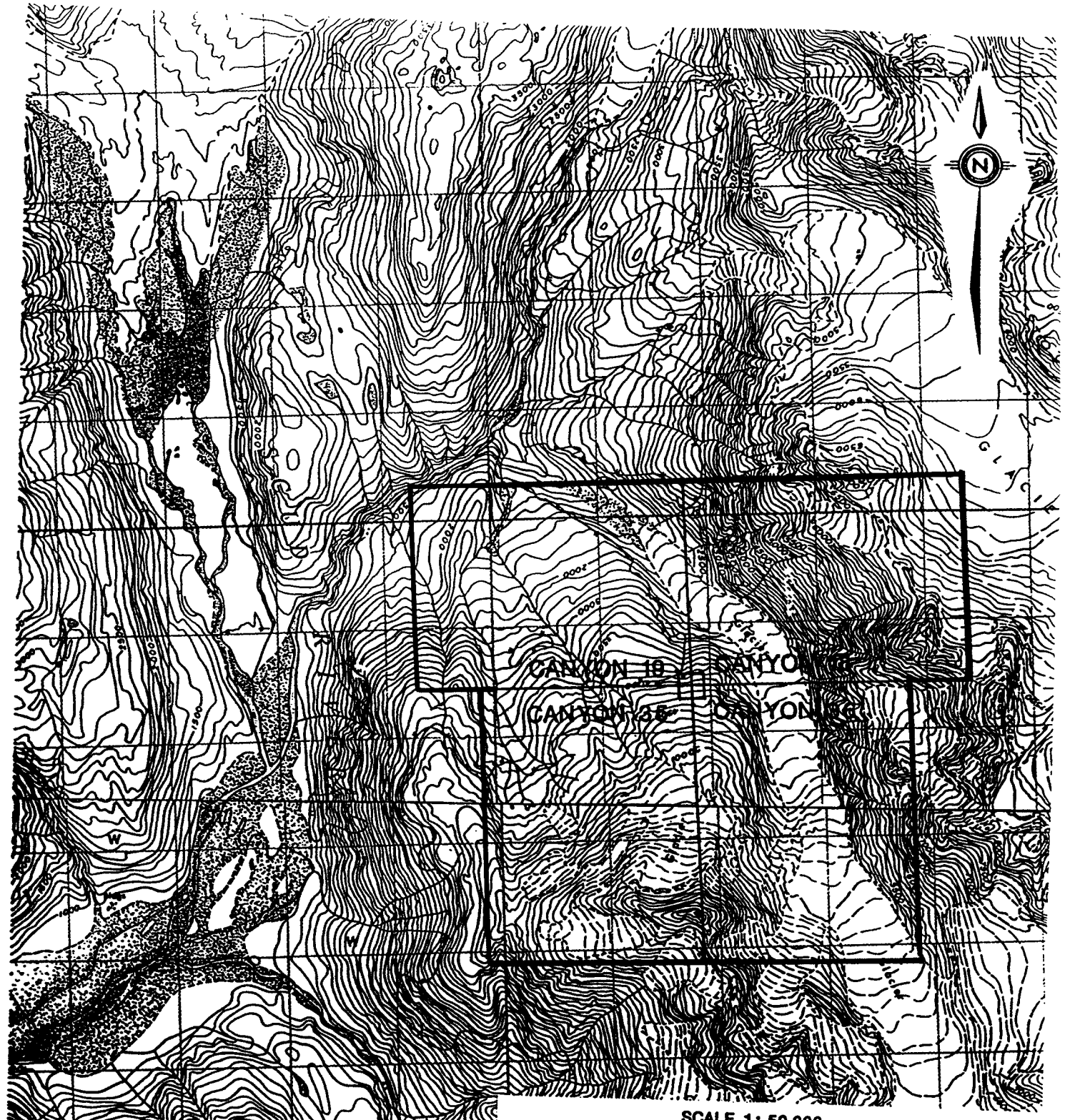
HOMESTAKE MINERAL DEVELOPMENT COMPANY

GRAND CANYON PROJECT, B.C.

SCUD GROUP
(CANYON 18,19,35,36)

LOCATION MAP

DRAWN	DATE	FILE CODE	
KMc	11/87	104G	FIGURE 1
Revised			



SCALE 1: 50,000

HOMESTAKE
MINERAL DEVELOPMENT COMPANY

(CANYON 18,19,35,36)
SCUD GROUP
DETAILED CLAIM LOCATION

DRAWN	DATE	FILE CODE	
P.H.	Aug., 10, 85	1046/6	Figure 2.2
Revised			

1.3 ACCESS

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. A gravel airstrip capable of handling aircraft as large as DC-3's is located at the Galore Creek camp just south of the Scud River.

2.0 CLAIM STATUS

The South Scud property consists of four claims totalling eighty units. The claims are grouped as the South Scud group and are owned by Homestake Mineral Development Company and Equity Silver Mines Ltd. Current claim data is as follows:

CLAIM	UNITS	RECORD#	RECORD	EXPIRY
Canyon 18	20	4674	06/14/88	06/14/90
Canyon 19	20	4675	06/14/88	06/14/90
Canyon 35	20	4735	06/28/88	06/28/90
Canyon 36	20	4736	06/28/88	06/28/90

3.0 EXPLORATION HISTORY

The area now covered by the Canyon 18 claim was previously staked as the Bik 117 to 136 claims by Silver Standard Mines Ltd. in 1964. Work on the claims included geological mapping and a regional geochemical sampling program.

In June of 1989, Homestake conducted a "first pass" evaluation of the South Scud property by completing a program of stream - sediment sampling, prospecting and rock sampling. The program outlined the SB and Ultramafic Fault Zones as two areas of interest. The SB Zone is a stibnite bearing quartz vein in the northeast corner of the Canyon 35 claim while the Ultramafic Fault Zone is a zone of alteration along a major regional reverse fault in the southwest corner of the same claim. This past work is outlined in B.C. Ministry of Mines Assessment Report 19074.

4.0 REGIONAL GEOLOGY

The property lies on the boundary between the Coast Plutonic Complex and Intermontane Belts and is underlain by rocks of the Stikine terrane. The terrane in this area can be divided into four tectonostratigraphic packages: a Late Palaeozoic to Middle Jurassic island arc suite represented by the Stikine assemblage of Monger (1977) and the Stuhini Group (Kerr, 1948); Middle Jurassic to early Late Cretaceous successor-basin sediments of the Bowser Lake Group (Tipper and Richards, 1976); Late Cretaceous to Tertiary volcanic arc assemblages of the Sloko Group (Aiken, 1959); and Late Tertiary to Recent post - orogenic plateau basalts of the Edziza and Spectrum Ranges.

Three stages of plutonism are recognized in the area. The Hickman batholith is composed of Early to Middle Triassic quartz monzonite to quartz diorite. The Yehiniko and Galore Creek Intrusions are composed of quartz diorite to syenite of Early to Middle Jurassic age. Numerous dykes and sills of monzonite to diorite of Tertiary age occur throughout the project area.

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 northwest trending normal faults are dominant and are cut by narrow west - trending extensional faults (Souther, 1972).

5.0 PROPERTY GEOLOGY

The property is underlain by pre-Permian ultramafics, Permian limestones, Triassic to Upper Triassic mafic volcanics and intercalated sediments and granodiorite to diorite of the Hickman Batholith.

The oldest rocks on the property are altered ultramafic rocks of pre-Permian age and bedded limestones of Permian age. These rocks outcrop in the southwest corner of the Canyon 35 claim and are in structural contact with Triassic to Upper Triassic volcanics and sediments to the east. The ultramafic rocks are pervasively altered to serpentine but are commonly altered to an assemblage of quartz-carbonate-mariposite $\pm$ pyrite ("listwanite") in close proximity to the Ultramafic Fault. The limestones are typically light to medium gray and are well bedded. Interbeds of tuffaceous siltstone and argillite are common and are locally up to more than one meter wide although they average between ten to fifty centimetres in width. Bedding in the limestones is convoluted and deformed but generally trends north - south with shallow dips to the west.

Structurally and stratigraphically above the both the pre-Permian ultramafic rocks and the permian limestones is a thick succession of strongly chloritized mafic volcanic rocks and intercalated sediments of probable Triassic age. The volcanics are generally dark green, fine grained, massive and strongly chloritized with no noticeable phenocrysts or primary textures. The sediments are generally dark green to black and consist of well bedded argillites and siltstones. Logan (1989) mapped the southern extent of these rocks as Upper Triassic Stuhini but the lack of pyroclastics and pyroxene porphyritic rocks makes this unlikely.

In the western half of the property, the Triassic stratigraphy is intruded and hornfelsed by the Middle to late Triassic Hickman Pluton. The pluton is batholithic in size and is complexly zoned. On the property, the pluton is predominantly medium to coarse grained, equigranular, moderately magnetic diorite to hornblende granodiorite. Iron carbonate alteration is common at the intrusive/volcanic contact.

6.0 EXPLORATION PROGRAM

Exploration covered by this report was carried out during the period Sept. 4 to Sept 7, 1989 by a Homestake crew based out of Telegraph Creek, B.C. The program consisted of mapping and sampling along the Ultramafic Fault (Figure 4.2) and hand trenching, mapping and sampling on the SB Zone (Figure 4.1).

HOMESTAKE
MINERAL DEVELOPMENT COMPANY

GRAND CANYON PROJECT
TELEGRAPH CREEK B.C.
SCUD GROUP
(CANYON 18,19,35,36)

REGIONAL GEOLOGY

DRAWN	DATE	FILE CODE	FIGURE 3.1
MJD	08/89		

LEGEND

CENOZOIC

QUATERNARY
PLEISTOCENE AND RECENT

29 Fluvjatile 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 15x
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

6.1 ULTRAMAFIC FAULT ZONE

Geology and Structure

The Ultramafic Fault Zone is located adjacent a major regional reverse fault (Ultramafic Fault) located in the southwest corner of the Canyon 35 claim. The fault has been traced by Logan (1989) and Brown (1989) for a distance of twenty kilometers from just east of Galore Creek north to the Scud Glacier.

On the property, the Ultramafic fault strikes roughly 350 to 010^0 and dips 75 to 80^0 to the west. The structure is easily located on the ground as it forms a long recessive lineament through the property. The Ultramafic Fault has placed pre-Permian Ultramafic rocks and Permain limestones and interbedded siltstones against chloritized volcanics and intercalated sediments of Triassic to Upper Triassic age. In the hanging wall of the fault, slivers of ultramafic rock up to 100 meters wide are exposed. These rocks are strongly serpentinized and immediately adjacent the fault are altered to an assemblage of quartz-carbonate-mariposite $\pm$ pyrite (listwanitie). These "listwanitie" alteration zones locally contain stockworks of quartz and carbonate stringer up to ten meters in width, the stockworks themselves do not contain sulfide minerals. Andesitic volcanic rocks in the footwall of the fault are locally intensely fractured but do not show the degree of alteration evident in the hanging wall.

A splay fault of the Ultramafic Fault trending 350^0 has cut Permian limestones and brought them in contact with several small zones of altered Ultramafic rock. The slivers of Ultramafic rock are restricted in size but serpentinization is pervasive and quartz-carbonate-mariposite alteration is locally prominent. No quartz or carbonate stringers were noted.

Mineralization

The only sulfide mineral noted in the Ultramafic Fault Zone was pyrite. It occurs as fine disseminations in amounts to 1% in the quartz-carbonate-mariposite altered ultramafic rocks but is not present in the quartz carbonate stockwork zones. Pyrite was also noted in an outcrop of siliceous argillite in the hanging wall of the Ultramafic Fault. Sample 31769, taken from this outcrop, returned <5 ppb gold and 0.2 ppm silver, neither of which are considered anomalous.

In the footwall volcanics iron carbonate alteration is common along intensely fractured zones. The alteration zones locally contain trace to 3% disseminated pyrite but are quite limited in extent. Sample 31770, taken from a small carbonatized alteration zone in the volcanic rocks returned <5 ppb gold, 0.3 ppm silver and 334 ppb copper.

6.2 SB ZONE

Geology

The SB zone is a quartz vein hosted antimony, arsenic ± gold showing located in the northeast corner of the Canyon 35 claim. The quartz vein trends 323°/65° NE and is located at a parallel trending contact between a fine-grained footwall mafic dyke and an iron carbonate altered granodiorite of the Hickman Pluton. The vein is composed of milkly white to clear quartz containing numerous vugs and cavities filled with stibnite. It is irregular in shape and poorly exposed. A program of hand trenching was moderately successful in extending the known strike of the vein to the southeast. It now has an approximate length of 11 meters and maximum of width of 1.6 m and is still open to the southeast.

Alteration consists of chlorite and carbonate in the footwall mafic dyke and widespread iron carbonate alteration in the Hickman granodiorites. The granodiorite also contains numerous thin quartz and carbonate stringers containing up to 5% stibnite. The most common orientation of these stringers is 020-040°/50-60°SW.

Mineralization

Mineralization at the SB zone consists of pockets of fine-grained stibnite up to 2 cm in size within a milkly white quartz vein. The mineralization is patchy but persistent along the known strike length of the vein. Three channel samples and one grab sample were collected from the trenched exposure of the vein, the sample results are tabulated below.

Sample No.	Type	Au ppb	Ag ppm	As ppm	Sb ppm
31738	1m Chnl	86	<0.2	185	366
31739	0.6m Chnl	96	0.9	400	>2000
31758	grab	388	0.2	964	>2000
31759	1.6m Chnl	218	0.9	504	>2000

A float sample (31757) of granodiorite containing a vein of quartz and pyrite (up to 30%) from 600 meters southeast of the SB zone returned 0.07 ounce per ton gold, 4.05 ounce per ton silver and 1677 ppm lead. The mineralogy of this sample suggest it is from an occurrence other than the SB zone which has not yet been identified.

8.0 REFERENCES

Allen, D.G., Panteleyev, A. and Armstrong, A.T. (1976) "Galore Creek" in Porphyry Deposits of the Canadian Cordillera, Special Volume 15,pg. 402 - 417.

B.C. Ministry of Mines, Assessment Reports # 589, 592, 19074.

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.

olbek, 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.

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Ney, C.S. and Hollister, V.F. (1976): "Geological Setting of Porphyry Deposits of the Canadian Cordillera" in Porphyry Deposits of the Canadian Cordillera, Special Volume 15, pg 21 - 30

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APPENDIX I

(Sample Descriptions)

SOUTH SCUD (CANYON 17 AND 18, 35 AND 36)

SAMPLE NO		TYPE	DESCRIPTION	MINERALIZATION
CN-35	31737	grab	diorite	3 to 4% diss po
	31738	1m chip	quartz vein at intrusive/volc contact	trace to 1% stibnite
	31739	.75m chip	as above	5 to 10% stibnite
	31757	float	1 to 2 cm quartz-pyrite vein in granodiorite	30% c.g. py
	31758	grab	f.g. grey quartz vein	.1% blebby stibnite
	31759	1.8m chip	quartz vein	1% stibnite, trace py
	31769	grab	silicified argillite with quartz veins	1 to 3% f.g. diss py
	31770	grab	carbonatized andesite	trace to 3% diss py

APPENDIX II

(Sample Results)

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[redacted] Vancouver, B.C.
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BONDAR-CLEGG

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

Geochemical Lab Report

REPORT: V89-06198.0 | DATE PRINTED: 25-SEP-89 | PROJECT: 5711CN | PAGE 1A

SAMPLE NUMBER	ELEMENT UNITS	Au PPB	Ag PPM	As PPM	Ba PPM	Be PPM	Bi PPM	Cd PPM	Ce PPM	Co PPM	Cr PPM	Cu PPM
R2 CC-BR-1 31702		12	<0.2	70	58	<0.5	<2	<1	<5	23	31	177
R2 CC-29-1 31722		12	0.7	110	34	<0.5	<2	<1	<5	12	316	267
R2 CN-30-1 31664		<5	<0.2	11	6	<0.5	<2	<1	<5	<1	7	3
R2 CN-30-1 31665		10	0.2	75	54	<0.5	<2	<1	<5	20	34	92
R2 CN-30-1 31732		<5	<0.2	11	97	<0.5	<2	4	<5	1	2	6
R2 CN-30-1 31734		38	3.8	85	12	<0.5	<2	<1	<5	137	5	540
R2 CN-30-1 31735		<5	0.2	264	101	<0.5	<2	<1	<5	13	74	43
R2 CN-30-1 31736		7	0.6	81	33	<0.5	<2	<1	<5	18	15	16
R2 CN-30-1 31753		13	<0.2	15	51	<0.5	3	2	<5	1	17	3
R2 CN-30-1 31755		<5	0.2	82	28	<0.5	<2	<1	<5	14	162	62
R2 CN-30-1 31756		13	0.6	23	6	<0.5	<2	768	<5	2	119	114
R2 CN-35-1 31737		<5	<0.2	55	45	<0.5	<2	<1	<5	24	36	179
R2 CN-35-1 31738		86	<0.2	185	88	<0.5	<2	4	29	<1	135	9
R2 CN-35-1 31739		96	0.9	400	74	<0.5	<2	<1	31	<1	104	9
R2 CN-35-1 31758		388	0.2	964	26	<0.5	<2	<1	35	<1	75	4
R2 CN-35-1 31759		218	0.9	504	82	<0.5	<2	<1	27	2	147	19
R2 CN-35-1 31769		<5	0.2	53	518	<0.5	<2	<1	5	6	138	31
R2 CN-35-1 31770		<5	0.3	104	81	<0.5	<2	<1	11	17	22	334
R2 CN-36-1 31757		2380	>50.0	453	165	<0.5	235	<1	<5	3	188	27

float. 4.05 opt

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BONDAR-CLEGG

Geochemical Lab Report

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

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SAMPLE NUMBER	ELEMENT UNITS	Ga PPM	La PPM	Li PPM	Mo PPM	Nb PPM	Ni PPM	Pb PPM	Rb PPM	Sb PPM	Sc PPM	Sn PPM
R2-GC-BR-1 31702		7	2	14	4	3	23	<2	95	<5	3	<20
R2 CC-29-1 31722		<2	<1	3	3	<1	18	<2	38	<5	<1	<20
R2 CN-30-1 31664		<2	<1	3	<1	33	13	<2	23	12	1	<20
R2 CN-30-1 31665		5	<1	11	2	<1	25	4	69	<5	3	<20
R2 CN-30-1 31732		<2	3	2	<1	36	14	27	42	17	1	<20
R2 CN-30-1 31734		<2	5	5	19	<1	208	<2	95	<5	2	<20
R2 CN-30-1 31735		16	1	21	5	3	21	<2	55	<5	7	<20
R2 CN-30-1 31736		3	<1	4	2	<1	23	<2	80	<5	3	<20
R2 CN-30-1 31753		<2	4	3	<1	31	14	3	25	11	2	<20
R2 CN-30-1 31755		7	<1	5	2	<1	33	<2	36	<5	4	<20
R2 CN-30-1 31756		12	<1	2	<1	<1	17	59	231	85	<1	<20
R2 CN-35-1 31737		10	2	13	2	<1	32	<2	46	<5	3	<20
R2 CN-35-1 31738		<2	17	<1	<1	<1	18	14	<20	366	<1	<20
R2 CN-35-1 31739		2	17	<1	1	<1	15	55	27	>2000	<1	<20
R2 CN-35-1 31758		<2	19	<1	2	<1	17	21	25	>2000	<1	<20
R2 CN-35-1 31759		3	14	<1	1	<1	18	117	42	>2000	<1	<20
R2 CN-35-1 31769		4	3	4	6	<1	24	<2	25	56	3	<20
R2 CN-35-1 31770		13	5	26	3	4	14	<2	25	27	10	<20
R2 CN-36-1 31757		<2	2	<1	7	<1	17	1677	<20	123	1	<20

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BONDAR-CLEGG

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

Geochemical Lab Report

REPORT: V89-06198.0

DATE PRINTED: 25-SEP-89

PROJECT: 5711CN

SAMPLE NUMBER	ELEMENT UNITS	Sr PPM	Ta PPM	Te PPM	V PPM	W PPM	Y PPM	Zn PPM	Zr PPM
R2-CC-BR-1 31702		39	<10	<10	108	<10	7	48	<1
R2 CC-29-1 31722		3	<10	<10	17	<10	<1	15	<1
R2 CN-30-1 31664		200	<10	<10	4	<10	10	9	<1
R2 CN-30-1 31665		50	<10	<10	24	<10	3	86	3
R2 CN-30-1 31732		37	<10	<10	4	<10	15	50	1
R2 CN-30-1 31734		13	83	<10	<1	<10	3	<1	2
R2 CN-30-1 31735		132	<10	<10	80	<10	5	146	2
R2 CN-30-1 31736		35	<10	<10	17	<10	4	122	1
R2 CN-30-1 31753		66	<10	<10	5	<10	15	26	1
R2 CN-30-1 31755		33	<10	<10	28	<10	3	30	1
R2 CN-30-1 31756		25	<10	<10	3	187	<1	>20000	3
R2 CN-35-1 31737		34	<10	<10	92	<10	5	109	2
R2 CN-35-1 31738		5	<10	<10	1	<10	3	243	3
R2 CN-35-1 31739		5	<10	<10	1	<10	2	67	2
R2 CN-35-1 31758		3	<10	<10	<1	<10	2	26	1
R2 CN-35-1 31759		7	<10	<10	2	<10	2	49	2
R2 CN-35-1 31769		48	<10	<10	48	<10	2	66	1
R2 CN-35-1 31770		48	<10	<10	91	<10	14	70	2
R2 CN-36-1 31757		9	14	79	3	<10	1	120	3

[redacted]ar-Clegg & Company Ltd.
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Certificate of Analysis

DATE PRINTED: 6-OCT-89

REPORT: V89-06198.6 | PROJECT: 5711CN | PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	Ag OPT	Zn PCT
~~R2 CN-30-1 31756~~			~~3.72~~
R2 CN-36-1 31757		4.05	

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Certificate of Analysis

DATE PRINTED: 19-OCT-89

REPORT: V89-06198.5 | PROJECT: 5711CN | PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	WT G	WT-100 G	WT+100 G	Au DUP OPT	Au DUP OPT	Au AVG OPT	Au+100 OPT	Au+100 MG	Au TOT OPT
R6 CN-36-1 31757		29.17	838.9	18.30	0.067	0.068	0.068	0.14	0.087	0.070

DISTRIBUTION:
GEOCHEMICAL RESULTS

	CHECK:
MASTER COPY	RTB
PROJECT FILE	CANYON U.BC.106 JC
GEOLOGIST	RB/DM
ACCOUNTING	1 COPY

APPENDIX III

(Sample Methods)

SAMPLING METHODS

Rock

Approximately one to two kilograms were collected with a rock hammer with care being taken to sample as much unweathered material as possible. The sample was placed in a 3 mil plastic sample bag and shipped to Acme Analytical Labs or Bondar-Clegg & Company for 30 element ICP and geochemical aanalysis of gold.

Stream Silt

The samples were collected with a hand trowel or by hand and placed in kraft sample bags, air dried and shipped to Acme Analytical Lasb or Bondar-Clegg and Company for analysis of 30 elements by ICP and gold by geochemistry.

Heavy Mineral

Stream sediment was sieved through a 20 mesh screen and collected in large 3 mil plastic sample bags. A standard sample weight of 8 kilograms 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 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.

Soil Samples

Samples were collected from the B horizon using a maddock, placed in kraft paper bags and air dried. The samples were shipped to Acme Analytical Labs or Bondar-Clegg and Company where they were analyzed by 30 element ICP and geochemical gold.

In all instances, sample locations were marked in the field with orange flagging tape and metal tags bearing the sample number, date and samplers name.

APPENDIX IV

(Analytical Methods)

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Determination of Elements by Plasma Emission Spectroscopy

Lefort Aqua-regia Digestion

The samples of 0.5 grams in weight are digested in test tubes with concentrated nitric and hydrochloric acids. These tubes are heated in hot water baths for two and one-half hours. The sample is then diluted and mixed. This solution is analyzed on the Plasma Emission Spectrograph by using the appropriate emission line for each element. The emissions are compared to standard solutions to determine the amount of each element that is present.

Multi-acid Digestion

A sample weight of 0.5 grams is transferred to a teflon test tube. It is then treated with a mixture of hydrofluoric, nitric and perchloric acids. The sample and acid mixture is heated in an aluminum block until the volume is reduced and there are strong perchloric fumes. The residue is dissolved with hydrochloric acid and the solution is then diluted to 20 ml. with demineralized water and mixed. These solutions are analyzed on the Plasma Emission Spectrograph using the appropriate emission line for each element. The emissions are compared to standard solutions to determine the amount of each element that is present. These are run within one hour of digestion in order to minimize precipitation problems.

Contamination Prevention

The test tubes are used for DC Plasma analysis only and are discarded after use. A solution of de-ionized water or dilute acid is run between samples to prevent contamination during analysis.

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PROCEDURE FOR ASSAY Au ANALYSIS

FIRE ASSAY PROCEDURE:

A prepared sample of one assay ton (29.166 grams) is mixed with a flux which is composed mainly of lead oxide. The proportions of the flux components (the litharge, soda, silica, borax glass, and flour) are adjusted depending upon the nature of the sample. Silver is added to help collect the gold. The samples are fused at 1950 F until a clear melt is obtained. The 30-40 gram lead button that is produced contains the precious metals. It is then separated from the slag. Heating in the cupellation furnace separates the lead from the noble metals. The normal-sized precious metal beads that are produced are transferred to test tubes and dissolved with aqua-regia. This solution is analyzed using Atomic Absorption by comparing the absorbance of these solutions with that of standard solutions. In the case of high grade samples, greater than 0.200 OPT, the precious metal bead is parted in dilute HNO3 acid to dissolve the silver and the remaining gold is weighed.

COMMENTS:

As part of our routine quality control we run a duplicate analysis for 2 out of each batch of 24 as well as a standard. These total about 12% of the samples. Also, all samples which are over 0.20 OPT on the original fusion are run again to verify the results. If a sample gives erratic results, such as 0.10, 0.020, 0.30, we will indicate this on the report. We suggest that a new split should be taken from the reject for preparation and analysis by our metallics sieve procedure. Certified standards and in house pulp standards as well as synthetic solution standards are run with each report or batch of samples.

PROCEDURE FOR FIRE ASSAY SILVER

1) One assay ton (29.16 grams) of homogeneous pulp is weighed into a fireclay crucible and fluxed appropriately with litharge, borax, soda ash and silica.
2) No inquart is added, only flour or niter to control button size.
3) Fusion takes place in a furnace of about 1900 degrees F. The same procedure is used for fusing gold.
4) A standard for silver is run with each silver fusion.
5) All buttons are made up to the same weight with silver-free lead foil.
6) Controlled temperatures and a watchful cupeller ensure minimal silver losses in cupellation.
7) Corrections are applied to final results based on checks and standards.

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SILVER DETERMINATION (WET ASSAY)

A 3.0 gm sample is analytically weighed into a beaker. It is digested with hot nitric, hydrochloric, and hydrofluoric acids which breaks down the ore. Once digested, the sample is boiled in a dilute acid solution, transferred to a flask, and carefully diluted to exactly 100 mls. The samples are analyzed on the atomic absorption unit along with certified standards, in house standards and duplicates.

Total CU,PB,ZN,FE,Ni,Cd,Co BY A.A.

A 0.5 gram sample is weighed into a beaker and digested with HNO3, HCl, and HF on a hotplate. The sample is taken down to dryness and then HCl is added with water and KClO3 to boil the sample into solution. The sample is then run on the atomic absorption unit along with pulp standards and synthetic standards. Any sample over 10% will be rerun by titration methods.

APPENDIX V

(Staement of Qualifications)

STATEMENT OF QUALIFICATIONS

I, Darcy Edward Marud, of 2205 Graveley Street, Vancouver, British Columbia, Canada, hereby certify that:

1. I am a graduate of the University of Saskatchewan, having been granted the degree of Bachelor of Sciences - Honours degree in Geology in 1985.

2. I have practiced my profession as a geologist in mineral exploration since 1985.

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 day of

Respectfully submitted

Darcy E. Marud

APPENDIX VI
(Statement of Costs)

SOUTH SCUD

1.0	SALARIES AND WAGES				
	Project Geologist	4 days	@	250/day	1000
	Geologist	4 days	@	180/day	720
	Assistant	1 days	@	130/day	130
					1850
2.0	GEOCHEMISTRY AND ASSAYING				
	Geochemistry	8 rock	@	17.50/spl	140
	Assay	1 silver	@	9.75/smpl	9.75
		1 gold	@	27.25/spl	27.25
					177
3.0	ADMINISTRATION				
	Travel expenses and airfare				400
	Maps, publications and photos				100
	Communications				20
	Freight and shipping				50
					570
4.0	SURFACE WORK				
	Accomodation				650
	Field Materials				100
	Air Support	4.5 hrs	@	655/hr	2947.5
					3697.5
5.0	MACHINERY AND EXPENSES				
	Rentals - Motorola radios				20
					20
				TOTAL	6314.5

Tahltan Lk.

Telegraph Cr

TELEGRAPH CREEK

N

RIVER

Mess Creek

STIKINE

Chutine River

Yehiniko Creek

Yehiniko Lk.

Schaft Creek

Dokdaon Creek

Strata Cr

RIVER

Scud River

South Scud Property

Mess Creek

STIKINE

HOMESTAKE MINERAL DEVELOPMENT COMPANY

South Scud Property

(Canyon 18,19,35 and 36)

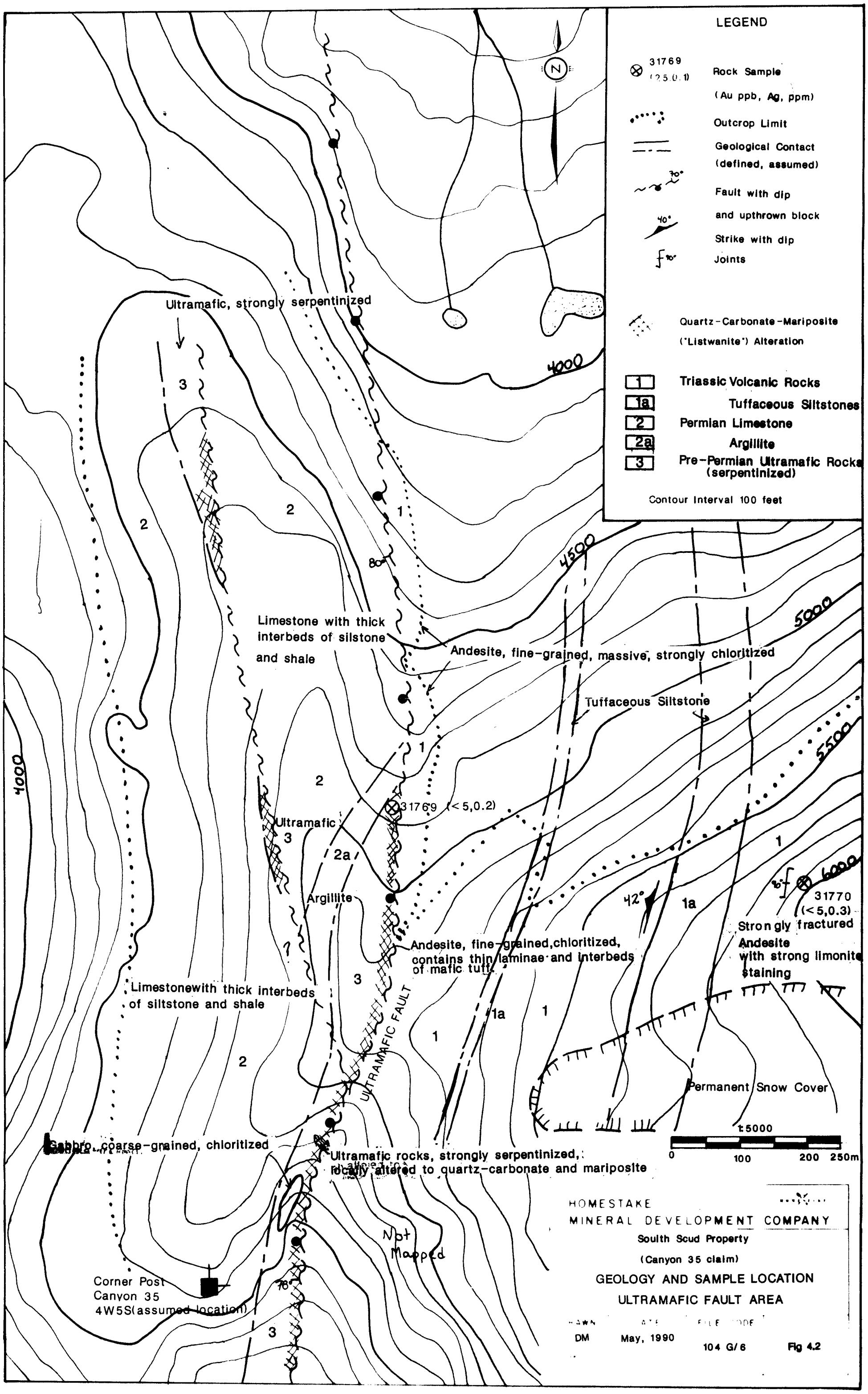
PROPERTY LOCATION MAP

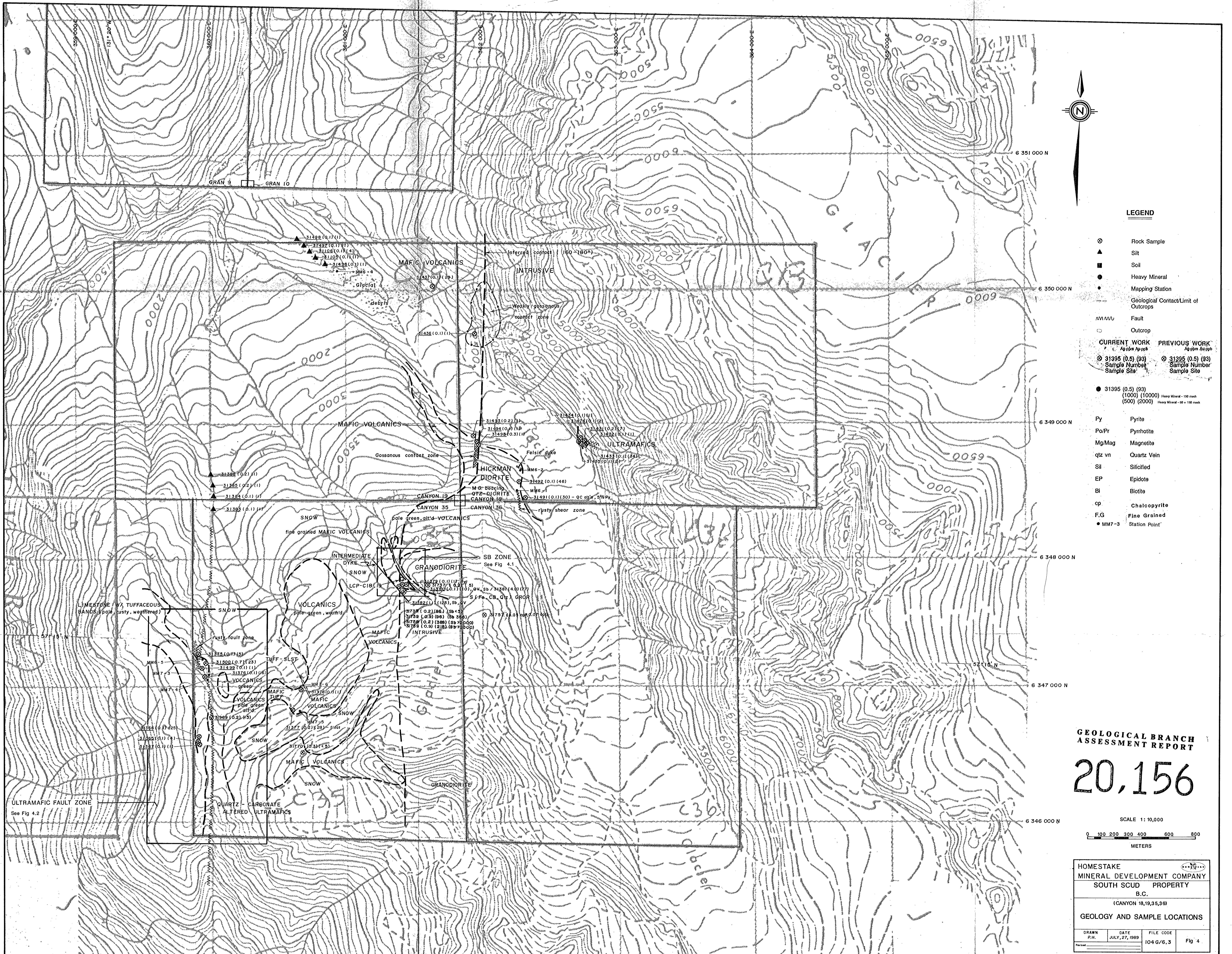
SCALE 1:250,000

0 5 10 15km

DM 05/90 104 G

Figure 2.1


LEGEND
31769 (25.0.1)
Rock Sample
(Au ppb, Ag, ppm)
Outcrop Limit
Geological Contact
(defined, assumed)
70°
Fault with dip
and upthrown block
40°
Strike with dip
Joints
Quartz-Carbonate-Mariposite
('Listwanite') Alteration
1 Triassic Volcanic Rocks
1a Tuffaceous Siltstones
2 Permian Limestone
2a Argillite
3 Pre-Permian Ultramafic Rocks (serpentinized)
Contour Interval 100 feet
Ultramafic, strongly serpentinized
Limestone with thick interbeds of silstone and shale
Andesite, fine-grained, massive, strongly chloritized
Tuffaceous Siltstone
31769 (<5,0.2)
Ultramafic
Argillite
Andesite, fine-grained, chloritized, contains thin laminae and interbeds of mafic tuff
Limestonewith thick interbeds of siltstone and shale
ULTRAMAFIC FAULT
Gabbro, coarse-grained, chloritized
Ultramafic rocks, strongly serpentinized, locally altered to quartz-carbonate and mariposite
Not Mapped
Corner Post
Canyon 35
4W5S(assumed location)
42°
31770 (<5,0.3)
Strongly fractured Andesite with strong limonite staining
Permanent Snow Cover
4000
4500
5000
5500
6000
1:5000
0 100 200 250m
HOMESTAKE
MINERAL DEVELOPMENT COMPANY
South Scud Property
(Canyon 35 claim)
GEOLOGY AND SAMPLE LOCATION
ULTRAMAFIC FAULT AREA
DRAWN DM
DATE May, 1990
FILE CODE 104 G/6
Fig 4.2



LEGEND
Rock Sample
Silt
Soil
Heavy Mineral
Mapping Station
Geological Contact/Limit of Outcrops
Fault
Outcrop
CURRENT WORK Ag-ppm Au-ppb
PREVIOUS WORK Ag-ppm Au-ppb
31395 (0.5) (93) Sample Number Sample Site
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 Chalcopyrite
F.G Fine Grained
MM7-3 Station Point
6 351 000 N
6 350 000 N
6 349 000 N
6 348 000 N
6 347 000 N
6 346 000 N
GEOLOGICAL BRANCH ASSESSMENT REPORT
20,156
SCALE 1: 10,000
0 100 200 300 400 600 800
METERS
HOMESTAKE MINERAL DEVELOPMENT COMPANY
SOUTH SCUD PROPERTY
B.C.
(CANYON 18,19,35,36)
GEOLOGY AND SAMPLE LOCATIONS
DRAWN P.H.
DATE JULY, 27, 1989
FILE CODE 104 G/6,3
Fig 4
Revised
GRAN 9
GRAN 10
MAFIC VOLCANICS
INTRUSIVE
Inferred contact
Glacial debris
Weakly gossanous contact zone
Gossanous contact zone
HICKMAN DIORITE
Felsic dyke
ULTRAMAFICS
rusty shear zone
CANYON 19
CANYON 35
CANYON 18
CANYON 36
SNOW
pale green alt'd VOLCANICS
fine grained MAFIC VOLCANICS
INTERMEDIATE DYKE
GRANODIORITE
SB ZONE
See Fig 4.1
LCP-C18,19
VOLCANICS
pale green, weath'd
MAFIC VOLCANICS
INTRUSIVE
LIMESTONE / W/ TUFFACEOUS BANDS (pale rusty, weathered)
rusty fault zone
TUFF - SLST
MAFIC TUFF
ULTRAMAFIC FAULT ZONE
See Fig 4.2
QUARTZ - CARBONATE ALTERED ULTRAMAFICS
GLACIER

granodiorite w. Fe-cbt alt'n, thin qtz/cbt stringers

mafic dyke

qtz/cbt vns. w. up to 5% stibnite

65
323

022
60

035
55

approximate extent of glacial debris

31739
(96,0.9,400,>2000)

qtz vn. w. pockets of massive stibnite 1-2cm size

31758 (388,0.2,964,>2000)

large boulder

31759
(218,0.9,504,>2000)

31738 (86,<0.2),185,366)

toe of glacier

LEGEND

⊗ 31738
(86,<0.2),185,366)

Rock Sample
(Au ppb, Ag ppm, As ppm, Sb ppm)

42° 040

Strike with Dip

1 : 100

0 2 4

Meters

HOMESTAKE
MINERAL DEVELOPMENT COMPANY

South Scud Property, B.C.
(Canyon 18,19,35 and 36 claims)

DETAILED GEOLOGY
SB SHOWING

DRAWN	DATE	FILE CODE	
PS	May,1990	104G/6,3	Fig 4.1
Revised			