

MAP NO.: ASSESSMENT REPORT X
115 N 15 PROSPECTUS
CONFIDENTIAL X
OPEN FILE

DOCUMENT NO: 092842
MINING DISTRICT: DAWSON
TYPE OF WORK: GEOLOGY, GEOCHEMISTRY

REPORT FILED UNDER: Homestake Mineral Development Co. Ltd

DATE PERFORMED: July 20-25, Sept 30-Oct 2, 1989 DATE FILED: March 6, 1990

LOCATION: LAT.: 63° 59'N AREA: Sixtymile River
LONG.: 140° 32'W VALUE \$: 3336.65

CLAIM NAME & NO.: SIXTYMILE 35-50 YA 88272-YA88288

WORK DONE BY: Darcy Marud

WORK DONE FOR: Homestake Mineral Development Co. Ltd.

DATE TO GOOD STANDING:

REMARKS: #116 SIXTYMILE Anomalous values of gold and silver were detected by lithogeochemical sampling in thin chalcedonic quartz veins and stringer zones within kaolinitized andesitic volcanic rocks of Tertiary age.

*indexed June 6/90
summarized April 19/91*



1989 EXPLORATION PROGRAM
GEOLOGICAL AND GEOCHEMICAL REPORT
ON THE
SIXTY MILE QUARTZ CLAIMS
YUKON TERRITORY

NTS: 115N/15
Latitude: 63° 59'N
Longitude: 140° 32'W

By:

Darcy Marud

For:

Homestake Mining (Canada) Limited
#1000 - 700 West Pender St.
Vancouver, B.C. V6C 1G8

092842

November 1989

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8.0 SUMMARY

Anomalous values of gold and silver were detected by lithogeochemical sampling in thin chalcedonic quartz vein and stringer zones within kaolinitized andesitic volcanic rocks of Tertiary age. Anomalous values of As, Be, Bi, Cu, Mo and Te are correlatable with anomalous precious metal values. Although no economic precious metal values have been detected yet, the general geochemistry and alteration in the area would seem to suggest that there is a possibility of finding an epithermal type deposit in the area. Regular visits should be made to the area during the summer to map new placer pits as they are developed. Should further sampling find economic precious metal values, a rotary drill program is recommended to test the vein and stringer zones at depth.

1.0 INTRODUCTION

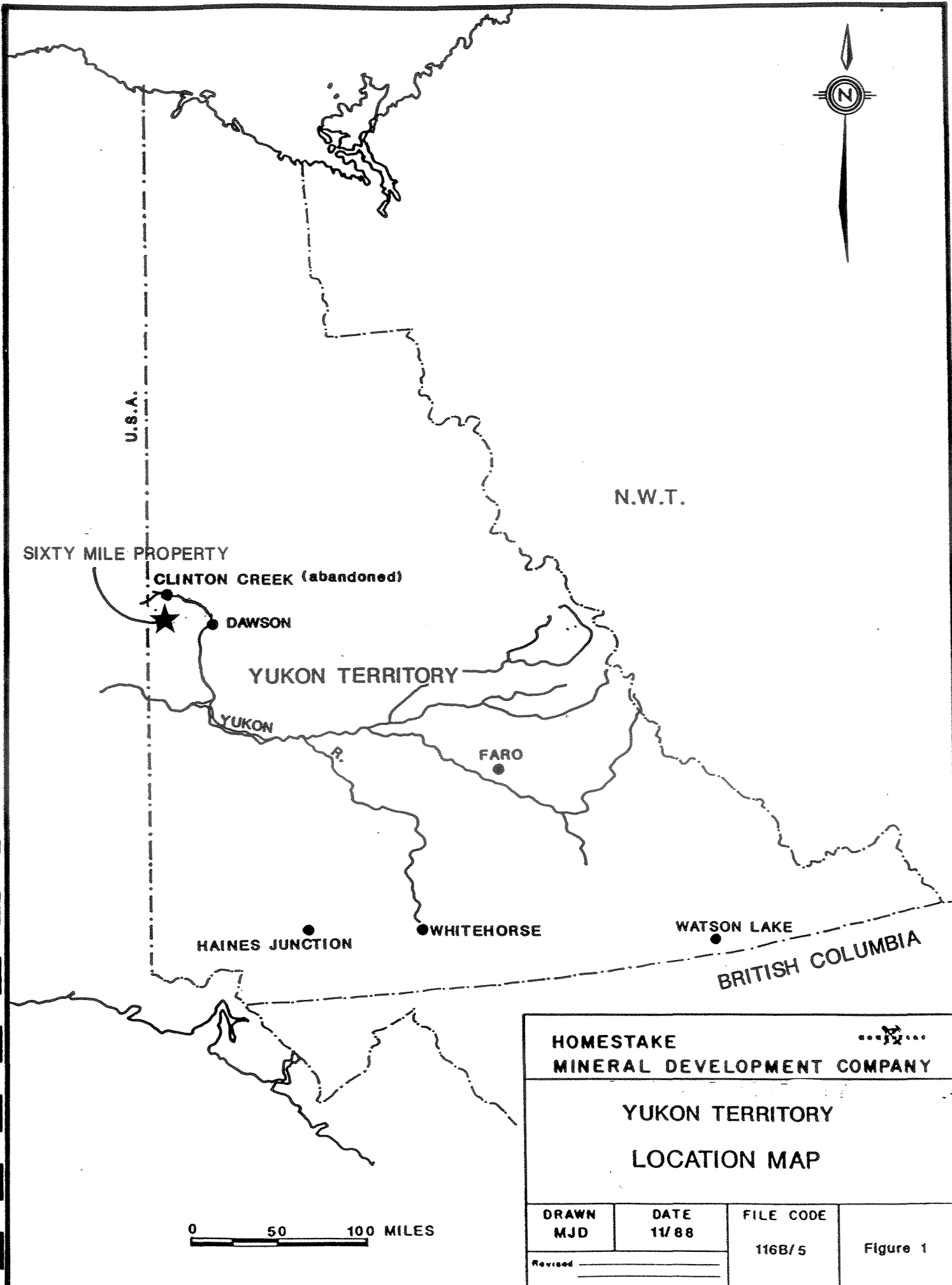
The Sixty Mile property consists of two separate claim blocks, comprising 51 claims, situated in the Sixty Mile River valley, 65 kilometers west of Dawson City, Yukon. The claims were previously owned by Esso Minerals Canada but were purchased by Homestake Mining (Canada) Limited in early 1989. An exploration program conducted by Homestake personnel during July and October of 1989 consisted of geological mapping and rock sampling of newly exposed bedrock in placer pits. All work was concentrated on the eastern claim block, comprised of the Sixty Mile 35 to 51 quartz claims.

2.0 LOCATION AND ACCESS

The Sixty Mile claims are located in the Sixty Mile River valley, Yukon near latitude 63° 59'N, longitude 140° 32'W on NTS map sheets 115N/15 and 116C/2, (Figure 1.0). Access to the claims is via a good seasonal road along Big Gold Creek from kilometer 85 on the "Top of the World Highway". Total road distance to the property from Dawson City is 98 kilometers.

3.0 CLAIM STATUS

The Sixty Mile Quartz Claims are owned by Homestake Mining (Canada) Limited of Vancouver, B.C. The claims are located as two separate claim blocks, a southwesterly block comprising 34 full size two-post claims and a northeasterly block consisting of 14 full size claims and three claim fractions. The two claim blocks are separated by 1.8 kilometers. See Appendix I for the list of claims and status and Figure 2.0 for location.



HOMESTAKE MINERAL DEVELOPMENT COMPANY			
YUKON TERRITORY LOCATION MAP			
DRAWN MJD	DATE 11/88	FILE CODE 116B/5	Figure 1
Revised _____			

4.0 REGIONAL GEOLOGY

The Sixty Mile River area is located within the Yukon cataclastic terrain. Most of the area is underlain by Nasina Series rocks of Palaeozoic and Precambrian age. An erosional remnant of rocks correlative with Tertiary Carmacks Group is centered near the confluence of Big Gold Creek and Sixty Mile River.

The Palaeozoic and Precambrian metamorphic rocks consist of chert and metachert, massive dark gray graphitic - quartzite and quartz-mica-schist, black and orange foliated chlorite-muscovite-quartz schist and strongly foliated to gneissic muscovite-chlorite-biotite granodiorite.

The Carmacks Group rocks consist of brown, green and red andesite, basalt and flow breccia with interdigitated sedimentary rocks.

One outcrop of Quaternary alkaline - olivine basalt has been mapped in the area (Glasmacher, 1985).

Extensive Quaternary alluvium covers much of the Sixty Mile River valley.

5.0 HISTORY AND PREVIOUS WORK

The Sixty Mile River valley and several tributaries have been subject to placer mining activities dating back to 1892 when C. Miller discovered placer gold in Miller Creek.

Recent work by Glasmacher (1985) concluded that, "the primary mineralization in the Sixty Mile River area consists of northeast - southwest striking vein-type mineralization which traverses the metamorphic basement and the Tertiary volcanics, and of the hot spring - type epithermal mineralization within Tertiary calc-alkali volcanics which underlie the area around the mouth of Big Gold Creek". More recent mapping by Jim Mortenson of the GSC confirms the presence of epithermal type alteration and mineralization within the Tertiary volcanics underlying the Sixty Mile property.

The Sixty Mile claims were staked by Esso Minerals Canada on the basis of Glasmacher's observations and the discovery of pyritic and altered volcanics on the Wendy and Delia claims at the confluence of Miller Creek and the Sixty Mile River. Previous work done on the property by Esso Minerals includes geological mapping and lithogeochemical sampling of placer pits in 1987 and 1988 and a magnetometer survey completed in 1988. The entire Sixty Mile property was purchased by Homestake Mining (Canada) Limited from Esso Minerals Canada in June of 1989.

6.0 1989 FIELD ACTIVITIES

An exploration program to map and sample bedrock recently exposed by placer mining over the Sixty Mile quartz claims was conducted from July 20 to 25 and September 30 to October 2, 1989. All new excavations were located and tied into a grid established by Esso in 1988 or tied to undisturbed claim posts. The pits and trenches once located were geologically mapped and sampled at a scale of 1:500.

7.0 1989 GEOLOGICAL FIELD WORK

7.1 PROPERTY GEOLOGY

The Sixty Mile claims lie within the Sixty Mile River valley and are coincident with active placer mining operations. The claims are overlain by a blanket of alluvial sand and gravel varying in thickness from 1 to 40 meters. Outcrop exposure is extremely rare therefore, the best source of geological information on the claims is bedrock exposed by the placer mining operations. Because placer mining requires the constant moving of sand and gravel the landscape in the area changes dramatically in a matter of weeks. It is very important, therefore, to visit the area every other month as one excavation that is there one month may very well be gone the next.

Bedrock exposed within the vicinity of the Sixty Mile 35 to 51 quartz claims is predominantly plagioclase porphyritic andesite, andesite lapilli tuff and tuff breccia. The rocks are typically clay altered and contain trace to 5% disseminated and fracture controlled pyrite. Locally the andesites weather purple in color and are highly chloritized. Fracturing and jointing occur in two predominant trends one at 220° to 260° and the second at 340° to 360°.

Detailed mapping and sampling was carried out in three different placer pits. A short description of each is given below.

1989 - 1 PIT

This pit exposes bedrock on the Sixty Mile #43 claim. It is approximately 350 meters long and 85 meters wide at its widest point. The pit was excavated during May to July of 1989. A temporary flagged grid was used for control during mapping and sampling.

The western end of the 1989 - 1 pit is predominantly underlain by a light purple weathering plagioclase porphyritic andesite. The rock is weakly bleached with kaolinite. East of 2 + 00 W, the rock becomes increasingly more bleached and brecciated. Numerous "black sooty"

sulfide zones and dark gray chalcedonic quartz veins become common in the more intensely altered rocks to the east. The preferred orientation for most of the vein and sulfide zones is 340 to 030 degrees. It is believed that the "black sooty" zones may be a supergene staining or dispersion of massive pyritic veining, (Figure 3.1).

1989 - 2 PIT

This pit is overlain by the Sixty Mile #41 claim and is located approximately 800 meters ESE of 1989 - 1 Pit. The pit is approximately 75 meters square. This particular pit was previously mapped by Esso in 1988 but recent excavations have enlarged the pit and provided more useful geological information, (Figure 3.2).

The west half of the pit is underlain by a very blocky, weakly chloritized plagioclase porphyritic andesite. Very little alteration can be seen in the rocks except for a trace to 5% pyrite on fracture surfaces. The eastern half of the pit is underlain by similar rocks but they are now moderately altered to kaolinite, with 1 to 2% fine-grained pyrite disseminated throughout. Once again, as in pit 1989 - 1, a series of dark gray chalcedonic quartz stringers and "black sooty" sulfide zones can be seen in the kaolinitized section of the pit. The stringers and sulfide zones strike roughly 340 degrees and rarely exceed 10 centimeters in thickness.

1989 - 3 PIT

This pit is overlain by Sixty Mile #43 and is located approximately 235 meters WNW of pit 1989 - 2. The pit is 300 meters long by 75 meters wide and is elongated in a 050 direction. This pit was excavated during the months of August and September, 1989.

This pit is underlain by a very continuous and monotonous sequence of weakly kaolinitized andesites. Pyrite on fractures is common throughout the pit but most abundant in the east. Very little veining and sulfide enrichment was seen in this particular pit, (Figure 3.3).

7.2 LITHOGEOCHEMICAL SAMPLING AND RESULTS

7.2.1 SAMPLING PROCEDURE

The rock sampling program was designed to determine the precious metal potential of the eastern claim block of the Sixty Mile property.

A total of 24 rock samples were collected from the property, 13 from the 1989 - 1 pit, 8 from the 1989 - 2 pit and 3 from the 1989 - 3 pit. All samples were collected from dozer-ripped bedrock with a rock hammer and placed in 3 mil plastic sample bags. Care was taken to prevent contamination of the sample by placer gold. The average sample weight was 3 kilograms.

7.2.2 ANALYTICAL PROCEDURES

After collection, the samples were forwarded to Bondar Clegg and Company Ltd. in Vancouver for 29 element ICP analysis, and gold fire assay by atomic absorption.

The laboratory analytical procedure consists of pulverizing a portion of the sample to -150 mesh, splitting a 0.5 gram sample and digesting it with 3 ml 3-1-2 HCl-HNO₃-H₂O at 95 degrees C for one hour and diluting it to 10 ml with water. The samples are then run for 29 elements using the ICP technique. The elements analyzed include Ag, As, Ba, Be, Bi, Cd, Ce, Co, Cr, Cu, Ga, La, Li, Mo, Nb, Ni, Pb, Rb, Sb, Sc, Sn, Sr, Ta, Te, V, W, Y, Zn and Zr. Gold is fire assayed and analyzed by A.A. from a 10 gram sample.

7.2.3 RESULTS

All results are tabulated in Appendix II and plotted on Figures 3.1 to 3.3. Sample descriptions are listed as Appendix III.

Assay results for precious metals were for the most part low although several results were anomalous. Gold values ranged from below the detection limit of 5 ppb to a high of 402 ppb. Silver values were generally low with a high value of 7.9 ppm.

The majority of rock samples from pit 1989-1 returned low precious metal values in the range of 10 to 80 ppb. Sample 32483, however, returned 204 ppb gold with anomalous values in Ag, As, Bi, Cu, Pb and Te. The sample was taken from a brecciated andesite containing 1-2% pyrite.

Pit 1989-2 returned the most interesting results from the sampling program. Samples 32487, 32489 and 32490 returned 212, 402 and 205 ppb gold respectively. All three samples were taken from parallel quartz stringer zones striking approximately 340 degrees. All three samples, and several other samples along the stringer zones, also returned anomalous values in Ag, As, Be, Bi, Cu, Mo and Te.

Of the 3 samples taken from pit 1989-3, only sample 31956 returned anomalous precious metal values (353 ppb au, 1.9 ppm Ag). This sample also showed an enrichment in Be, Sc and Te.

In summary, it would appear that gold and silver are found in anomalous, but not economic, quantities in NW to NE trending chalcedonic quartz vein and stringer zones within kaolinitized andesitic volcanics. Anomalous values of As, Be, Bi, Cu, Mo and Te are correlatable with anomalous precious metal values. In general, the geochemistry seems to be in line with that typical of a hot-spring type epithermal showing.

9.0 BIBLIOGRAPHY

- Glasmacher, V. (1985): Geology, Petrography and Mineralization in the Sixty Mile River Area, Yukon Territory, Canada -Translation - Thesis, Rhenish West Phalian University, Aachen, West Germany.
- Lowey, J and Doborzynski, Z. (1988): 1988 Exploration Program, Ground Magnetic Survey, Geological and Geochemical Report on the Sixty Mile Quartz Claims, Delia Prospect, Yukon Territory, 115N/15, Assessment Report.
- Melnyk, W. (1988): 1987 Exploration Program, Geological Mapping and Sampling on the Sixty Mile Quartz Claims, Yukon Territory, 115N/15, Assessment Report.



LEGEND

CENOZOIC

- Eocene or Younger**
 - eTcv CARMACKS GROUP: brown-weathering, brown, green and red andesite, basalt and flow breccia

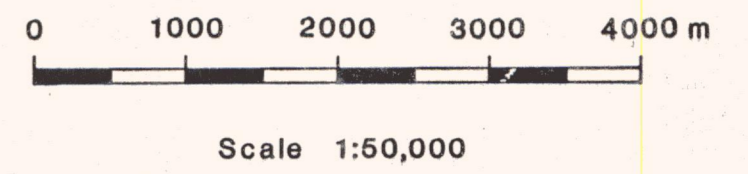
PERMIAN AND/OR OLDER

- Pt CHERT AND METACHERT: grey-weathering pale green and purplish brown hornfelsed argillaceous chert with lesser interbedded chloritic phyllite and marble
- EPgd FOLIATED BIOTITE GRANODIORITE: foliated to gneissic biotite granodiorite; minor interfoliated phyllite, schist and amphibolite
- EPqs NASINA QUARTZITE: black-weathering, massive, dark grey to black graphitic quartzite with lesser grey micaceous quartzite and quartz mica schist
- EPsqm KLONDIKE SCHIST: black and orange-weathering well foliated pale green chlorite muscovite quartz schist; includes augen gneiss and amphibolite
- EPgdn Pelly GNEISS: strongly foliated to gneissic muscovite chlorite biotite granodiorite; minor augen gneiss; includes some undifferentiated foliated muscovite quartz monzonite

FAULT

★ 1988 PLACER PITS

● 1989 PLACER PITS



REVISIONS

By	Date	Apprv. By

HOMESTAKE

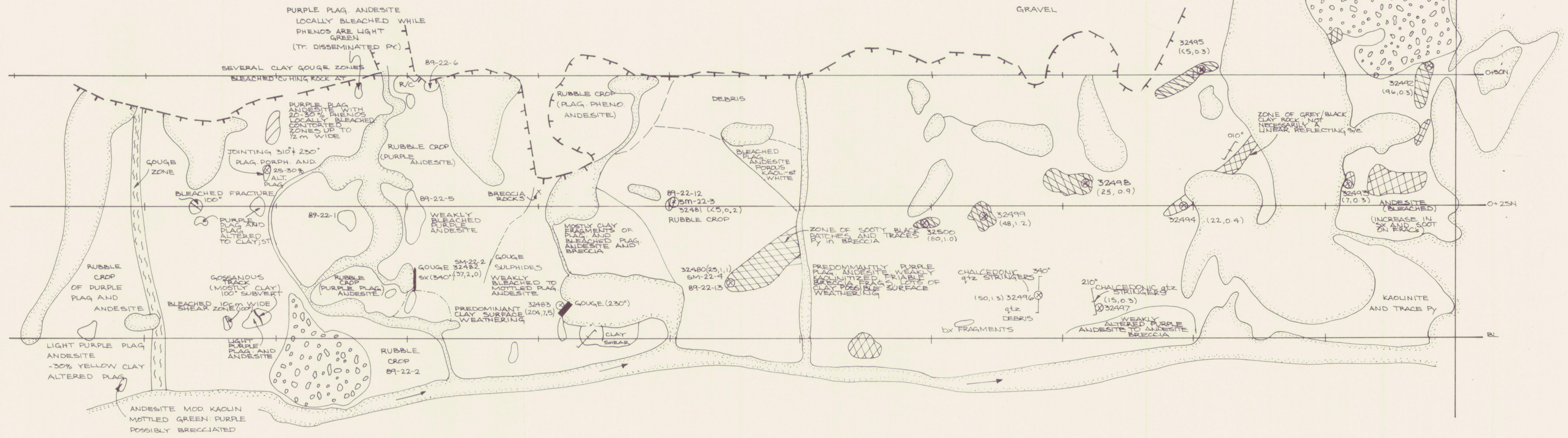
MINING (CANADA) LIMITED

SIXTY MILE RIVER, YUKON TERRITORY
CLAIM LOCATION
AND
REGIONAL GEOLOGY

DRAWN dm	DATE 11/89	NTS 115N/5	FIG. 2.0
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092842
No Map# Doc# 092842 149

3+00W 2+75W 2+50W 2+25W 2+00W 1+50W 1+25W 1+00W 0+75W 0+50W 0+25W 0



- LEGEND**
- WATER WITH FLOW DIRECTION
 - EDGE OF PIT
 - GRAVEL/PLACER TAILINGS
 - ROAD
 - VEINING (DEFINED) --- (INFERRED)
 - SULFIDIZED ZONE
 - GEOLOGICAL CONTACT
 - 32490 SAMPLE LOCATION/NUMBER
 - JOINTING (INCLINED, VERTICAL)



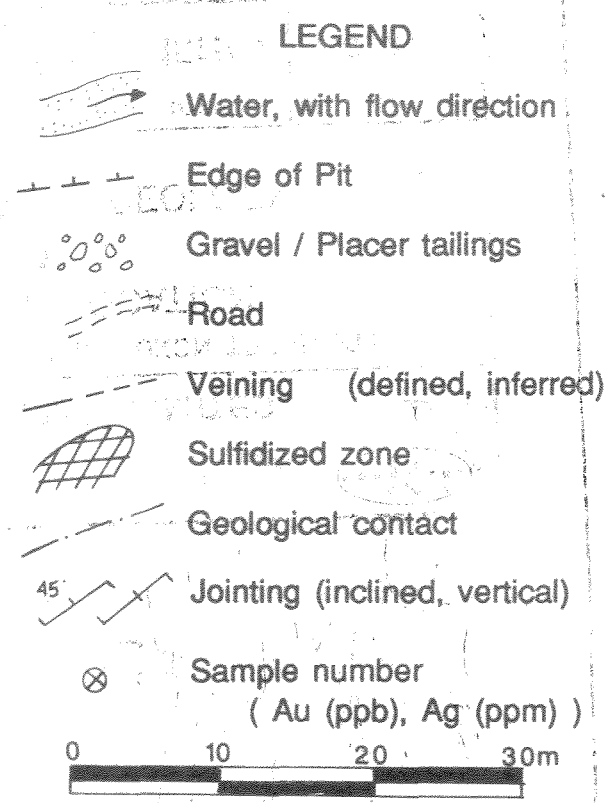
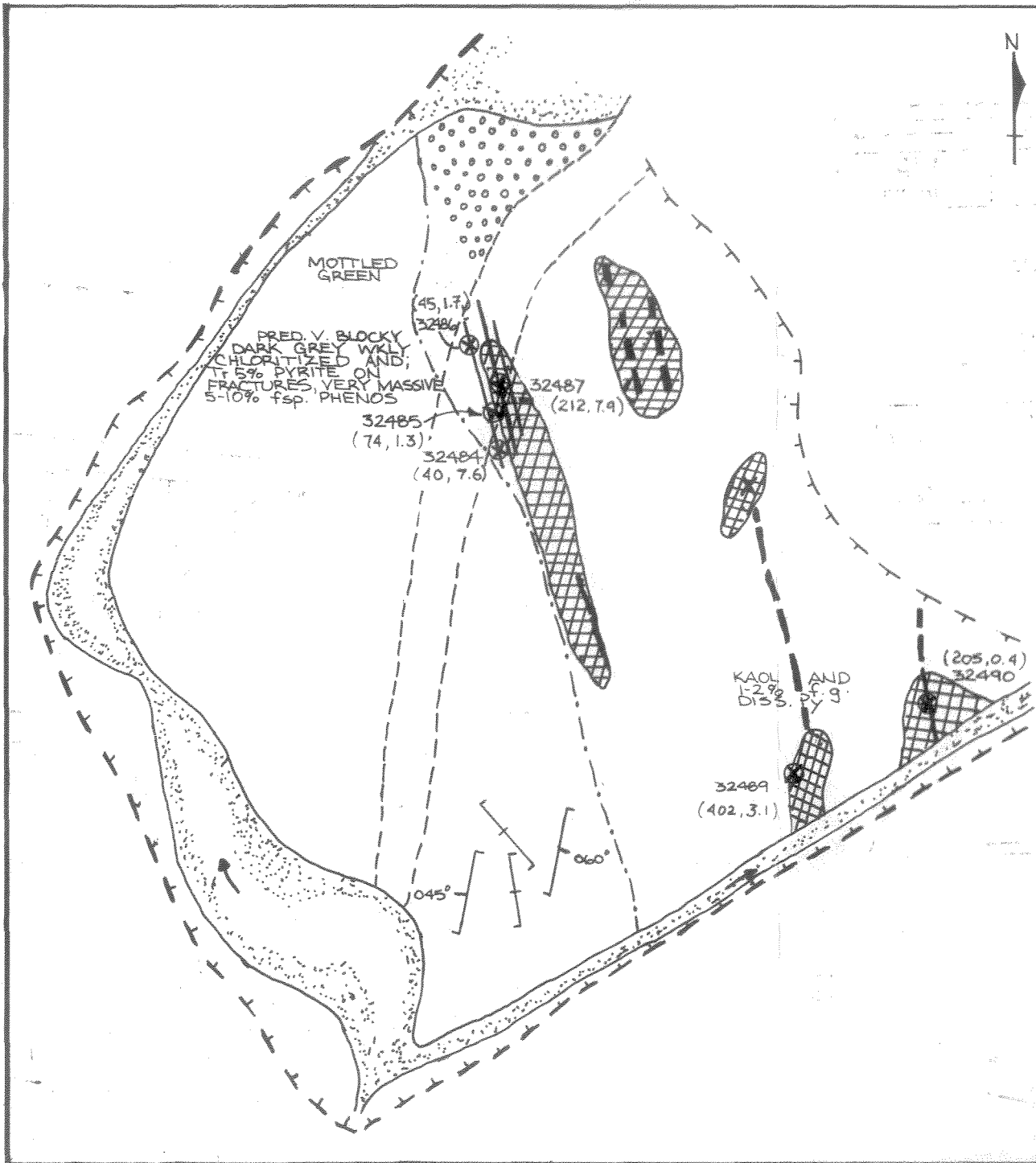
1:500

092842

PIT 89-1

HOMESTAKE MINERAL DEVELOPMENT COMPANY			
SIXTY MILE RIVER, YUKON			
SIXTY MILE PROPERTY			
GEOLOGY AND SAMPLE LOCATIONS			
DRAWN MJD	DATE 11/89	FILE CODE	
Revised			Fig. 3.1

No MAP# Doc#092842 (151)



PIT 89-2

HOMESTAKE
MINERAL DEVELOPMENT COMPANY

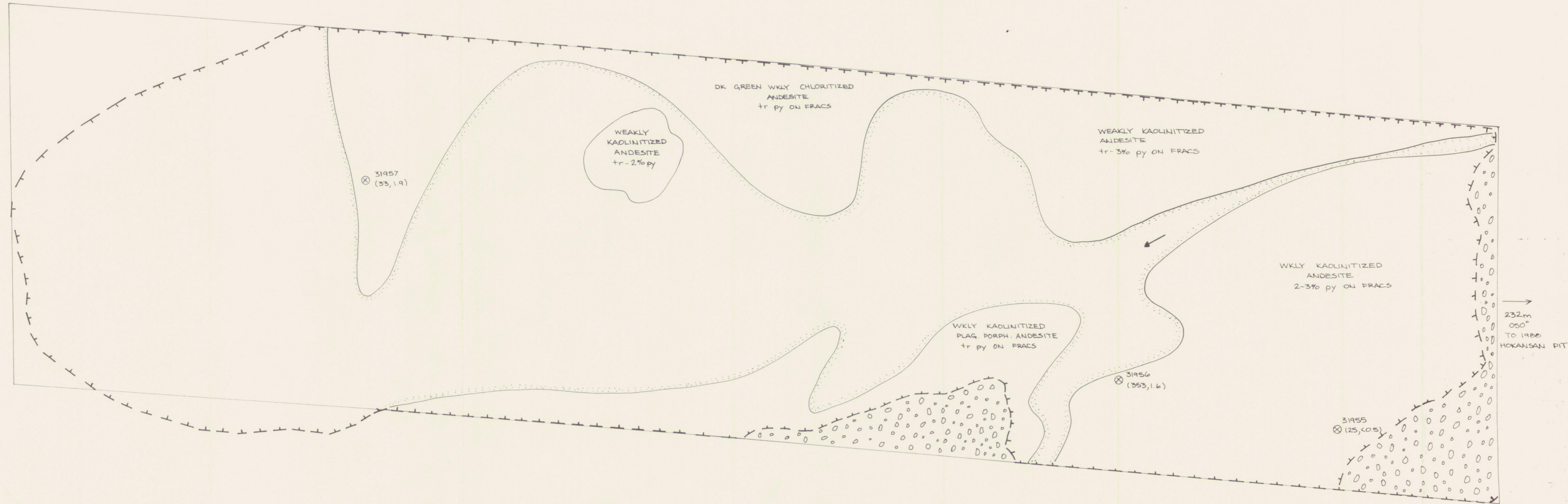
SIXTY MILE RIVER, YUKON

SIXTY MILE PROPERTY

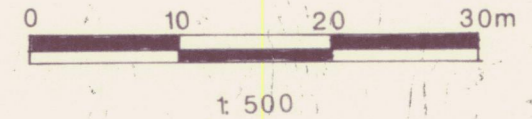
GEOLOGY AND SAMPLE LOCATIONS

DRAWN MJD	DATE 11/89	FILE CODE	Fig 3.2
Revised			

092342



- LEGEND
- Water, with flow direction
 - Edge of Pit
 - Gravel / Placer tailings
 - Road
 - Veining (defined, inferred)
 - Sulfidized zone
 - Geological contact
 - Sample number (Au (ppb), Ag (ppm))
 - Jointing (inclined, vertical)



PIT 89-3

HOMESTAKE MINERAL DEVELOPMENT COMPANY			
SIXTY MILE RIVER, YUKON			
SIXTY MILE PROPERTY			
GEOLOGY AND SAMPLE LOCATIONS			
DRAWN	DATE	FILE CODE	
MJD	11/89		Fig 3.3
Revised			

No MAP#

Doc # 092842

150

APPENDIX I
Claim Status

APPENDIX I - LIST OF CLAIMS

<u>Claim Name</u>	<u>Tag No.</u>	<u>Renewal</u>	<u>Expiry Date*</u>
Sixty Mile No.			
1	YA88238		Oct. 31, 1989
2	YA88239		Oct. 31, 1989
3	YA88240		Oct. 31, 1989
4	YA88241		Oct. 31, 1989
5	YA88242		Oct. 31, 1989
6	YA88243		Oct. 31, 1989
7	YA88244		Oct. 31, 1989
8	YA88245		Oct. 31, 1989
9	YA88246		Oct. 31, 1989
10	YA88247		Oct. 31, 1989
11	YA88248		Oct. 31, 1989
12	YA88249		Oct. 31, 1989
13	YA88250		Oct. 31, 1989
14	YA88251		Oct. 31, 1989
15	YA88252		Oct. 31, 1989
16	YA88253		Oct. 31, 1989
17	YA88254		Oct. 31, 1989
18	YA88255		Oct. 31, 1989
19	YA88256		Oct. 31, 1989
20	YA88257		Oct. 31, 1989
21	YA88258		Oct. 31, 1989
22	YA88259		Oct. 31, 1989
23	YA88260		Oct. 31, 1989
24	YA88261		Oct. 31, 1989
25	YA88262		Oct. 31, 1989
26	YA88263		Oct. 31, 1989
27	YA88264		Oct. 31, 1989
28	YA88265		Oct. 31, 1989
29	YA88266		Oct. 31, 1989
30	YA88267		Oct. 31, 1989
31	YA88268		Oct. 31, 1989
32	YA88269		Oct. 31, 1989
33	YA88270		Oct. 31, 1989
34	YA88271		Oct. 31, 1989
35	YA88272	2 years	Oct. 31, 1990
36	YA88273	2 years	Oct. 31, 1990
37	YA88274	2 years	Oct. 31, 1990
38	YA88275	2 years	Oct. 31, 1990
39	YA88276	2 years	Oct. 31, 1990
40	YA88277	2 years	Oct. 31, 1990
41	YA88278	2 years	Oct. 31, 1990
42	YA88279	2 years	Oct. 31, 1990
43	YA88280	2 years	Oct. 31, 1990
44	YA88281	2 years	Oct. 31, 1990
45	YA88282	2 years	Oct. 31, 1990
46	YA88283	2 years	Oct. 31, 1990
47	YA88284	2 years	Oct. 31, 1990
48	YA88285	2 years	Oct. 31, 1990
49	YA88286	2 years	Oct. 31, 1990
50	YA88287	2 years	Oct. 31, 1990
51	YA88288		Oct. 31, 1990

* Contigent upon acceptance of this assessment report.

APPENDIX II
Assay Results

Bondar-Clegg & Company Ltd.
 130 Pemberton Ave.
 North Vancouver, B.C.
 V7P 2R5
 (604) 985-0681 Telex 04-352667



Geochemical Lab Report

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

REPORT: V89-07579.0 (COMPLETE)

REFERENCE INFO: SHIPMENT #DM-89-1

CLIENT: HOMESTAKE MINERAL DEVELOPMENT COMPANY
 PROJECT: 5710 132

SUBMITTED BY: D. MARUD
 DATE PRINTED: 31-OCT-89

ORDER	ELEMENT	NUMBR OF ANALYSES	LOWER DETECTION LIMIT	EXTRACTION	METHOD	
1	Au	Gold - Fire Assay	3	5 PPM	FIRE-ASSAY	Fire Assay AA
2	Ag	Silver	3	0.5 PPM	HN03-HCL HOT EXTR	Ind. Coupled Plasma
3	As	Arsenic	3	5 PPM	HN03-HCL HOT EXTR	Ind. Coupled Plasma
4	Ba	Barium	3	5 PPM	HN03-HCL HOT EXTR	Ind. Coupled Plasma
5	Be	Beryllium	3	0.5 PPM	HN03-HCL HOT EXTR	Ind. Coupled Plasma
6	Bi	Bismuth	3	2 PPM	HN03-HCL HOT EXTR	Ind. Coupled Plasma
7	Cd	Cadmium	3	1 PPM	HN03-HCL HOT EXTR	Ind. Coupled Plasma
8	Ce	Cerium	3	5 PPM	HN03-HCL HOT EXTR	Ind. Coupled Plasma
9	Co	Cobalt	3	1 PPM	HN03-HCL HOT EXTR	Ind. Coupled Plasma
10	Cr	Chromium	3	1 PPM	HN03-HCL HOT EXTR	Ind. Coupled Plasma
11	Cu	Copper	3	1 PPM	HN03-HCL HOT EXTR	Ind. Coupled Plasma
12	Ga	Gallium	3	2 PPM	HN03-HCL HOT EXTR	Ind. Coupled Plasma
13	La	Lanthanum	3	1 PPM	HN03-HCL HOT EXTR	Ind. Coupled Plasma
14	Li	Lithium	3	1 PPM	HN03-HCL HOT EXTR	Ind. Coupled Plasma
15	Mo	Molybdenum	3	1 PPM	HN03-HCL HOT EXTR	Ind. Coupled Plasma
16	Nb	Niobium	3	1 PPM	HN03-HCL HOT EXTR	Ind. Coupled Plasma
17	Ni	Nickel	3	1 PPM	HN03-HCL HOT EXTR	Ind. Coupled Plasma
18	Pb	Lead	3	2 PPM	HN03-HCL HOT EXTR	Ind. Coupled Plasma
19	Rb	Rubidium	3	20 PPM	HN03-HCL HOT EXTR	Ind. Coupled Plasma
20	Sb	Antimony	3	5 PPM	HN03-HCL HOT EXTR	Ind. Coupled Plasma
21	Sc	Scandium	3	1 PPM	HN03-HCL HOT EXTR	Ind. Coupled Plasma
22	Sn	Tin	3	20 PPM	HN03-HCL HOT EXTR	Ind. Coupled Plasma
23	Sr	Strontium	3	1 PPM	HN03-HCL HOT EXTR	Ind. Coupled Plasma
24	Ta	Tantalum	3	10 PPM	HN03-HCL HOT EXTR	Ind. Coupled Plasma
25	Te	Tellurium	3	10 PPM	HN03-HCL HOT EXTR	Ind. Coupled Plasma
26	V	Vanadium	3	1 PPM	HN03-HCL HOT EXTR	Ind. Coupled Plasma
27	W	Tungsten	3	10 PPM	HN03-HCL HOT EXTR	Ind. Coupled Plasma
28	Y	Yttrium	3	1 PPM	HN03-HCL HOT EXTR	Ind. Coupled Plasma
29	Zn	Zinc	3	1 PPM	HN03-HCL HOT EXTR	Ind. Coupled Plasma
30	Zr	Zirconium	3	1 PPM	HN03-HCL HOT EXTR	Ind. Coupled Plasma

Handwritten signature or initials

Bondar-Clegg & Company Ltd.
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North Vancouver, B.C.
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PROJCT: 5710 132

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 SM-01-31955		<5	<0.5	<5	75	4.5	<2	1	<5	10	27	16
R2 SM-01-31956		353	1.6	<5	86	13.3	4	2	<5	104	58	24
R2 SM-01-31957		33	1.9	18	47	15.6	<2	<1	<5	85	40	32

Bondar-Clegg & Company Ltd.
130 Pemberton Ave.
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PROJECT: 5710 132

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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 SM-111-31955		<2	11	2	7	<1	5	37	140	<5	69	<20
R2 SM-01-31956		<2	3	2	8	4	<1	95	150	<5	32	<20
R2 SM-111-31957		<2	3	<1	49	5	<1	87	115	8	75	<20

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PAGE 1C

SAMPLE NUMBER	ELEMENT UNITS	Sr PPM	Ta PPM	Te PPM	V PPM	W PPM	Y PPM	Zn PPM	Zr PPM
R2 SM-01-31955		21	<10	<10	18	<10	13	88	3
R2 SM-01-31956		12	36	14	19	<10	8	208	5
R2 SM-01-31957		19	14	16	13	16	10	120	<1

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REPORT: V89-04356.0

DATE PRINTED: 6-AUG-89

PROJECT: 5710-137

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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 32480 ✓		25	1.1	81	55	3.2	9	4	34	8	20	16
R2 32481 ✓		<5	0.2	43	86	2.0	6	3	29	8	19	14
R2 32482 ✓		37	2.0	124	41	4.7	18	10	18	8	25	29
R2 32483 ✓		204	7.5	203	51	5.4	21	19	20	7	37	572
R2 32484 ✓		40	7.6	55	90	3.6	10	<1	36	7	15	87
R2 32485 ✓		74	1.3	95	56	6.7	17	3	21	9	8	762
R2 32486 ✓		45	1.7	248	44	18.0	41	<1	<5	32	36	126
R2 32487 ✓		212	7.9	195	25	13.2	30	4	8	20	21	698
R2 32488 ✓		15	<0.2	157	26	11.4	27	<1	25	29	35	187
R2 32489 ✓		402	3.1	197	21	14.1	36	3	11	13	23	347
R2 32490 ✓		205	0.4	233	32	13.1	40	<1	24	28	43	331
R2 32491 ✓		22	<0.2	91	40	6.1	17	1	21	16	36	176
R2 32492 ✓		96	0.3	69	98	3.8	13	3	14	7	21	11
R2 32493 ✓		7	0.3	38	115	2.0	5	<1	16	8	21	70
R2 32494 ✓		22	0.4	59	80	3.9	5	8	29	18	28	54
R2 32495 ✓		<5	0.3	37	101	2.2	5	3	31	22	12	36
R2 32496 ✓		50	1.3	37	71	2.7	6	3	19	4	19	104
R2 32497 ✓		15	0.3	65	243	3.9	11	3	43	5	21	81
R2 32498 ✓		25	0.9	37	129	2.1	5	6	28	8	17	53
R2 32499 ✓		48	1.2	89	68	2.8	7	13	16	6	14	52
R2 32500 ✓		80	1.0	59	56	3.2	8	2	16	8	15	61

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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 32480		9	17	5	1	3	14	410	<20	17	2	<20
R2 32481		7	15	4	<1	3	9	94	<20	13	2	<20
R2 32482		27	7	2	1	6	8	1812	<20	30	4	<20
R2 32483		34	8	3	9	6	9	6226	38	84	6	<20
R2 32484		5	18	4	10	2	7	320	<20	21	3	<20
R2 32485		7	8	3	12	2	8	120	32	30	2	<20
R2 32486		3	<1	1	103	<1	10	103	<20	63	<1	<20
R2 32487		3	<1	2	25	<1	7	310	<20	57	1	<20
R2 32488		8	8	8	320	3	11	24	<20	42	3	<20
R2 32489		5	<1	2	356	1	4	92	<20	54	3	<20
R2 32490		12	6	10	16	3	7	28	43	63	6	<20
R2 32491		4	8	4	40	2	8	58	27	31	5	<20
R2 32492		17	5	4	3	5	8	161	<20	24	3	<20
R2 32493		7	6	2	6	2	8	44	21	15	2	<20
R2 32494		8	12	4	3	2	19	378	23	17	8	<20
R2 32495		6	14	2	2	2	13	219	<20	11	3	<20
R2 32496		3	9	1	16	1	5	358	<20	12	1	<20
R2 32497		10	22	4	15	2	6	167	<20	23	3	<20
R2 32498		4	12	3	3	2	9	1004	<20	12	2	<20
R2 32499		3	7	<1	3	1	7	874	<20	21	<1	<20
R2 32500		3	6	1	3	<1	11	192	39	20	1	<20

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SAMPLE NUMBER	ELEMENT UNITS	Sr PPM	Ta PPM	Te PPM	V PPM	W PPM	Y PPM	Zn PPM	Zr PPM
R2 32480		13	<10	<10	13	11	9	690	3
R2 32481		14	<10	<10	10	<10	4	229	3
R2 32482		20	<10	11	14	<10	5	1534	3
R2 32483		24	<10	12	27	<10	6	2445	2
R2 32484		26	<10	<10	17	<10	2	39	4
R2 32485		23	<10	<10	10	<10	6	99	3
R2 32486		7	<10	16	1	<10	3	88	1
R2 32487		12	<10	13	6	<10	1	413	2
R2 32488		10	<10	15	21	<10	8	115	4
R2 32489		8	<10	14	6	35	6	455	2
R2 32490		15	<10	22	59	<10	10	125	2
R2 32491		12	<10	<10	16	<10	6	139	3
R2 32492		24	<10	<10	12	<10	7	450	3
R2 32493		10	<10	<10	8	<10	5	216	3
R2 32494		19	<10	<10	38	<10	7	595	3
R2 32495		13	<10	<10	9	<10	6	322	4
R2 32496		13	<10	<10	5	<10	3	215	2
R2 32497		16	<10	<10	25	<10	6	192	3
R2 32498		18	<10	<10	8	10	4	507	3
R2 32499		10	<10	<10	4	18	3	1708	2
R2 32500		11	<10	<10	4	<10	3	240	3

APPENDIX III
Sample Descriptions

APPENDIX III

SAMPLE NUMBER

DESCRIPTION

31955	Bleached andesite with 2-5% py.
31956	Chalcedonic qtz. stringer with up to 40% py.
31957	Zone of qtz. stringers approx 1 m wide with semi-massive py.
32480	Silicified, black sooty plagioclase andesite. Brecciated.
32481	Bleached and silicified plag. andesite. Black sooty sulfide.
32482	Gouge, 1 m wide. Contains numerous black stained boulder with 1-4% py.
32483	Kaolinitized plag. porph. andesite. Locally brecciated. 1-2% py, tr galena.
32484	Silicified andesite.
32485	Kaol. and sil. andesite on vein margins.
32486	Dk. blue chalcedonic qtz. vn. with up to 50% py.
32487	Chalcedonic stringers, up to 1 cm with 2%py
32488	lt. blue vuggy qtz. vn. 1-2 cm wide, 5-10% py, surrounded by 10 cm gouge.
32489	Qtz vn and sil. approx 10 cm wide. Massive coarse pyrite.
32490	Vuggy qtz. vn. containing 10% py.
32491	Bleached andesite containing vuggy qtz stringers with 2-3% py.
32492	2 meter wide rubbly zone with black sooty, bleached andesite.
32493	Black, sooty stained andesite.
32494	Black, sooty andesite with tr py.
32495	Black, sooty andeite.
32496	Black, chalcedonic qtz. stringer with open space filling. 1-2% py.
32497	Gray kaol. plag. andesite with 2-5% thin gray chalcedonic stringers strike 210. 1-2% py.
32498	Black, sooty andesite.
32499	Bleached andesite with 2-5% py.
32500	Black, sooty, bleached andesite.

APPENDIX IV

Statement of Qualifications

STATEMENT OF QUALIFICATIONS

I, Darcy Edward Marud, of Apt. 101, 1529 East Third Avenue, 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 17th day of October, 1989

Respectfully submitted



Darcy E. Marud

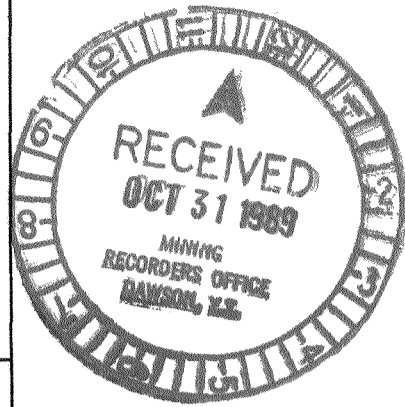
APPENDIX V
Statement of Costs

APPENDIX V - STATEMENT OF COSTS

1.0	<u>Salaries and Wages</u>			
	7 man days	@	\$200/day	\$1400.00
2.0	<u>Geochemical and Assaying</u>			
	24 rock samples	@	\$17.50	\$ 420.00
3.0	<u>Food and Accomodation</u>			
	Accom.			\$ 285.00
	Meals			\$ 201.65
4.0	<u>Field Supplies</u>			
	Sample Bags etc.			\$ 50.00
5.0	<u>Operating Expenses</u>			
	Fuel for Truck			\$ 330.00
6.0	<u>Maps and Publications</u>			
	Topo maps etc.			\$ 50.00
7.0	<u>Report Writing</u>			
	3 man days	@	\$200.00/day	<u>\$ 600.00</u>
			<u>TOTAL EXPLORATION</u>	<u>\$3336.65</u>



DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
YUKON QUARTZ MINING ACT
FORM "C" - APPLICATION FOR A CERTIFICATE OF WORK



(This form required in duplicate with sketch showing location of work.)

(Name)	DARCY MARUD	Occupation	GEOLOGIST
(Postal Address)	#1000 - 700 WEST PENDER STREET, VANCOUVER, B.C. V6C 1G8		

OFFICE DATE STAMP

MAKE OATH AND SAY, THAT:

- I am the owner, or agent of the owner, of the mineral claim(s) to which reference is made herein.
- I have done, or caused to be done, work on the following mineral claim(s):
(Here list claims on which work was actually done by number and name)

YA 88272 - 287 Sixtymile #35-50
inclusive

092842

situated at Sixty Mile River Claim Sheet No. 115-N-15, 116-C-2
in the Dawson Mining District, to the value of at least \$3,300.00
dollars, since the 20th day of July 1989,

to represent the following mineral claims under the authority of Grouping Certificate No. _____

(Here list claims to be renewed in numerical order, by grant number and claim name, showing renewal period requested).

Sixty Mile 35-50 YA 88272-YA 88287

Renew all claims to 31 October, 1992

RENEW FOR 2 YEARS

- The following is a detailed statement of such work: (Set out full particulars of the work done indicating dates work commenced and ended in the twelve months in which such work is required to be done as shown by Section 53.)

Bedrock exposed by placer mining, during the summer of 1989, was mapped and sampled at a scale of 1:2000 during the period July 20 to July 25th and October 1 to 3, 1989. Detailed geological report to follow.

Sworn before me at Vancouver, B.C.

this 18th day of October 1989.

Notary Public

GRAHAM H. SCOTT
BARRISTER & SOLICITOR
1040 - 999 West Hastings Street
Vancouver, B.C. V6C 2W2

Owner or Authorized Agent