YUKON MINING INCENTIVES PROGRAM

YMIP PROJECT 99-054

FORTYMILE RIVER AREA HARDROCK PROSPECTING

JULY 3, 1999 - JANUARY 30, 2000

TRANSVERSE MERCATOR PROJECTION CO-ORDINATES
latitude 64^0 20' - longitude 140^0 40'
PLACER CLAIM SHEET 116C-7

Leslie Chapman
Box 460, Dawson City
Yukon, Y0B-1G0

1. Introduction: The purpose of this prospecting project was to examine the Canadian portion Fortymile River and some of its tributary creeks, for lode gold occurrence.

The Fortymile River mining district is located approximately 40 air miles northwest of Dawson The area is covered by NTS map and claim sheet 116C-7 and is shown on **Map 1**. The latitude of the area in which I worked is approximately 64^0 20' and the longitude is approximately $140^0$40'. The specific areas which I prospected are located on **Maps 2, 3, and 4.**

I performed most of my prospecting work in the late fall and early winter period. This allowed me to take advantage of the ice on the Fortymile River for travel by snowmobile, and to walk up the frozen creek beds. I worked with an assistant for most of the program, for efficiency and safety. We travelled by snowmobiles to the various prospecting areas from our camp at Marten Creek, travelling both by road and over the frozen river..

2. Deposit Type and Geology: The Fortymile mining district encompasses the drainage of the Fortymile River, including its numerous forks and feeder creeks. This geographical area straddles the Alaska-Yukon border, with approximately 85% of the drainage located in Alaska. The Fortymile has gained notoriety as a prolific placer producing area, yielding approximately ½ million ounces of free gold since its discovery in 1886. Despite the extensive placer production, there has been very little hardrock mining in the district.

The Fortymile region is part of a larger area referred to as the Yukon-Tanana upland in Alaska. In Canada the area is called the Yukon Crystalline Terrane (Templeman-Kluit 1976) "It is primarily a terrane of quartzitic, pelitic, calcic, and mafic-metasedimentary rocks that have been extensively intruded by Mesozoic and Cenozoic granitic rocks and minor amounts of intermediate and mafic rocks." (USGS Open File Report 92-213.) "The subterrane that includes most of the rocks in the Fortymile region .... consists primarily of quartz biotite gneiss, marble, schist, quartzite, and amphibolite metamorphosed to amphibolite and epidote-amphibolite facies, and intruded by dikes and plutonic rocks.... Tertiary (?) to Palaeozoic (?) igneous rocks intrude older metamorphic rocks. Small areas of Tertiary sedimentary and volcanic rocks overlie older igneous and metamorphic rocks." (USGS Bulletin 2125, 1996, synthesising material from various USGS publications)

"Geological maps of the Eagle quadrangle (Foster, 1976) and of the eastern Yukon-Tanana region (Foster, 1992) clearly show the prevalence and almost unique occurrence of one geologic unit mapped in this area....It is readily identified on the geologic map of east-central Alaska by being almost completely encircled by thrust faults. Herein, it is called the gneiss, schist, amphibolite, and marble unit. The spatial association of this mapped unit with the occurrence of placer gold-rich creeks and rivers seems too precise to be attributed to chance. Therefore, I propose that the presence of this unit in the Fortymile River area is somehow linked to the occurrence of lode gold in the area. One theory is that this unit includes rock types containing gold that eventually, through remobilization, became concentrated in quartz veins. Another theory is that this unit provided a structural environment conducive to emplacement of gold-rich plutonic rocks, which gave rise to gold-rich quartz veins." (USGS Bulletin 2125, 1996)

Numerous theories have been advanced as to the source of the gold which produced the rich placer deposits of the Fortymile River. Some the theories are as follows:

- Spurr (1898) concluded that the quartz veins and quartz schists were the source of the gold.
- Mertie (1938) proposed quartz rich veins associated with concealed granite

- Foster and O'Leary (1982) found that sheared mineralized and quartz diorite, quartz-calcite veins, and calcite veinlets cutting metamorphic rocks and sheered granitic rocks in the Chicken Creek area contain gold.
- Foster (1987) found that gold is present in crushed faulted zones in the Dome and Canyon Creek area (adjacent to the Yukon border)
- Prindle (1909) reported the presence of lode gold at 4 localities 1) brecciated zones of quartz diorite along the Mosquito Fork, 2) thin calcite seams in black phyllite, 3) brecciated vein quartz in quartzite schist within a zone of intrusions in Canyon Creek , 4) quartz veins on Davis Creek.
- Mertie (1930) described gold bearing sulphides associated with calcite and veinlets of quartz; a sample of this rock assayed at 1.87 ounces of gold per ton.

The only lode gold mine in the area was the Purdie Quartz Mine which operated for a short time in the Chicken area, in the early 1900's.

In the course of a placer prospecting project which I carried out in 1998, I took a number of hardock samples in interesting looking rock (most of which was quartz) which I encountered in the field. While my samples did not reveal significant gold anomalies, they did show elevated levels of some indicator minerals. The quartz samples which I took did not show any significant mineralization. However, the ultramafic rocks which I sampled had elevated levels of nickel, manganese, zinc, copper, strontium, lead, calcium, chromium, arsenic, antimony, and magnesium in varying degrees. A number of these samples were in serpentine. My most interesting hardrock samples came from Cone Hill, located close to the Fortymile Bridge on the right limit of the river. The other samples which exhibited significant anomalies were obtained from a rock outcrop exposed in a riprap borrow pit directly across the river, approximately 1 km from Cone Hill.

I excavated some pits on a bar in the river adjacent to Cone Hill, as part of a previous placer evaluation of the bar gravels in 1989. The soft, black graphitic schist bedrock had large pyrite cubes embedded in it; pyrite is sometimes associated with gold.

3. Approach

I covered a fairly wide geographical area in this project. I was particularly interested in investigating the Cone Hill area, on the lower Fortymile River, where I had taken some samples which returned interesting results last season. In this area I took a large number of closely spaced chip samples from exposed outcrops and large boulders which had fallen from these outcrops. I had heard that there was an old addit on Cone Hill; I devoted some time to looking for it and eventually found it. I sampled the rock face surrounding the addit as well as the interior of the tunnel.

I took chip samples from outcrops on the Fortymile River from 1 kilometre upstream of Browns Creek to the Fortymile River canyon, a distance of approximately 13 km. In these areas I sampled quartz veins, as well as some of the host rock schists and basalts. I prospected parts of Clinton Creek, Marten Creek, and Browns Creek in the same manner.

I obtained samples of the bedrock chunks which had been deposited in the tailings left behind from placer dredging cuts on gravel bars of the Fortymile River primarily on the left limit, for a distance of approximately 3 km upstream of Marten Creek.

I assembled all of my hardrock samples in camp and sorted out the most interesting ones. (I wanted to keep the expenditure on assaying within budget for the project). The samples, which I selected, were split so that I could keep part of each sample, to facilitate reevaluating anomalies. I weighed, bagged and labelled a 400- 500 gram portion of each sample for assay.

I took soil samples in Marten Creek, Sparks Creek and Bar 5 Creek (an unnamed left limit Fortymile tributary approximately 1 km. upstream of Marten Creek). I collected soil samples from cutbanks, from road cuts and from streambanks. I took samples in the lowest soil horizon which I could access, generally about 0.5 m below the surface, although this depth was not consistent for all of the samples.

I prepared the soil samples for assay by first screening them to -10 mesh, to eliminate the pebbles and coarser material. I weighed out approximately 300 grams of each sample, and bagged and labelled them to be assayed. I was careful to use clean screening equipment so as not to contaminate the soil samples with placer gold, which may have been present from previous use. I retained the remaining material, as well as the + 10 mesh for possible future confirmation of anomalies.

I had the selected hardrock and soil samples assayed by Acme Analytical Laboratories in Vancouver. Samples were assayed for 30 elements by ICP-ES analysis, with results expressed in either parts per million (ppm) or as a percentage. As well, the samples were fire assayed for gold , platinum, and palladium, with results expressed in parts per billion (ppb).

4. Areas investigated and results obtained

For purposes of this report, I have grouped the various areas which I investigated according to their geographical proximity as follows:

a) Cone Hill: Cone Hill is a distinct geographic feature located approximately 5 km from the confluence of the Fortymile and Yukon Rivers. It is located on the right limit of the Fortymile River, rising 200- 250 meters above the river. The shape of the hill is conical as the name suggests, indicating that it is likely of volcanic origin. The north face consists of massive steep

Photo 1 *- Collecting a soil sample in an exposed overburden bank in Marten Creek*

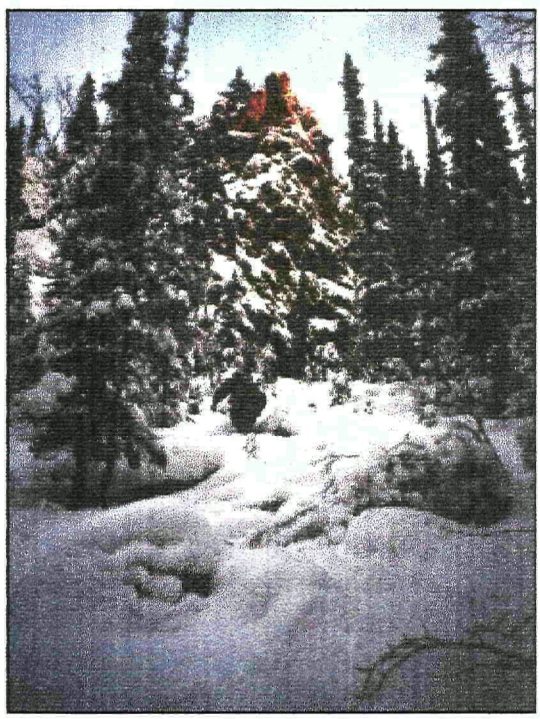


Photo 2 *- The pinnacle of the Cone Hill rock outcrop can be seen framed by the spruce trees*

outcrops of orange stained, mafic rock. Much of the rock is bright green in colour; serpentine and asbestos are evident. Large boulders have broken off this outcrop and litter the steep hillside and base of the hill. The east face is heavily treed, while the west side is nearly bare (Cone Hill is locally referred to as 50/50 because it is half treed and half bare).

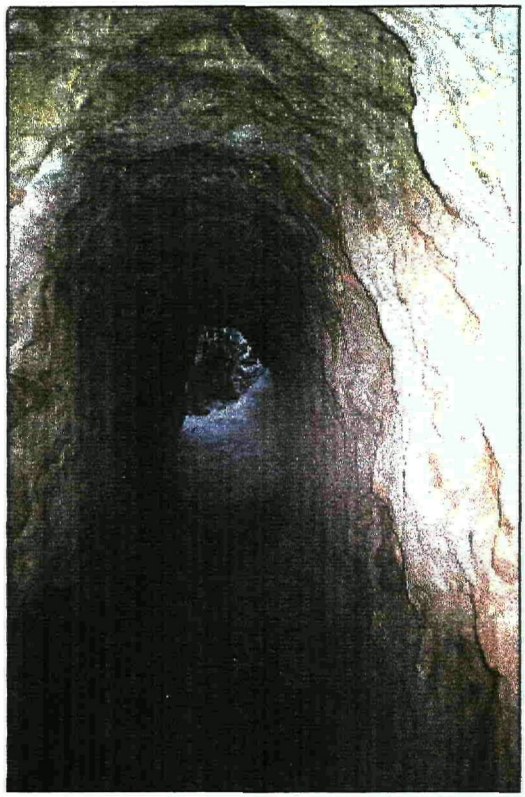


***Photo 3** - This is a view of the addit taken from inside , looking towards the entrance. The flash from the camera has illuminated the walls.*

One of my goals for this project was to find an old addit which was rumoured to have been driven somewhere on Cone Hill. I had heard both that it was a vein silver mine from early in the 1900's, and that it had been part of chromium discovery made by the Canadian government searching for strategic minerals in the 1950's cold war period. I made a thorough search of Cone Hill, and eventually located the addit near the base of the large outcrop approximately half way up the north face of the hill. The addit is in perfect condition; its dimensions are approximately 12 m. long by 2 m high by 1.5 m wide. There is a side drift, approximately 3.5 m. long, at right angles off the end of the main tunnel. I found an asbestos seam, approximately 20 cm. wide, near the mouth of the tunnel. There is also a narrow quartz vein in this area. The tunnel is driven into the ultramafic rock face, which is dark green in colour with bright green mineralization, perhaps related to chromium. My investigations of Cone Hill are noted on **pages 8, 9, 10, 37, 51, and 52 of my diary**, and **Map 2** shows the sample locations. I concluded that the addit must have been driven some time ago as I did not see any evidence of heavy equipment having been used to bring drilling equipment to the site.

My assay results from the Cone Hill samples are identified with an **"A" on the attached assay certificates**. The assays confirm the mafic nature of the rock, with elevated levels of nickel, manganese, and magnesium. Arsenic is present in some of the samples in quantities which may be significant, with ppm up to 321. Antimony is also elevated with up to 537 ppm. Chromium is present in levels up to 1623 ppm. None of the samples returned gold showings of greater than 3 ppb, although there are low level indications of platinum in many of these samples.

b) Rip-rap borrow pit: When the Clinton Creek asbestos mine access road and Fortymile River bridge were under construction in the early 1960's, a rip-rap borrow pit was opened up approximately 1 km north of the Fortymile River. This pit exposed the rock of the hillside aver a distance of approximately 200 m. The pit has two floors, one approximately 12 m above the other. The rock in this pit is similar to that found on Cone Hill, approximately 1 km away. Again, the rock is primarily mafic, though not as dark or as green as at Cone Hill. A lustrous foliated mica schist is present. A distinctive oxidized rusty orange-red colour is present on the surface of most of the rock. Numerous small quartz veins are found throughout the structure. Pages **19, 20, 21, 55, and 56 in my diary** refer to my sampling work in the rip-rap pit. **Map 3** shows the sample locations.

Samples assayed from this area are marked with a **"B" on the attached assay certificates**. Composition of these samples is similar to the Cone Hill samples. Arsenic is present at interesting levels of up to 3740 ppm, and zinc up to 175 ppm, indicating a possible mesothermal quartz type deposit. Although gold presence is minimal in most of these samples, one quartz sample did return 163 ppb of gold in the fire assay - this was the same sample which had the highest arsenic showing. Strontium is also quite high, with levels up to 1267 ppm.

c) Clinton Creek, Marten Creek, Bar 5 Creek, Sparks Creek, Brown's Creek: Clinton Creek is a large left limit tributary of the Fortymile River, approximately 4 km above the confluence of the Fortymile and Yukon Rivers. The abandoned Clinton Creek asbestos mine is located approximately 9 km upstream on Clinton Creek. I prospected the lower reaches of Clinton Creek, hoping to extend the boundaries of the Cone Hill/riprap pit hardrock anomaly. I took samples for an exposed outcrop along the mine road which looked similar to the riprap pit rock. Two of the samples had quartz crystals approximately 1.5 cm in length embedded in the host rock. Samples showed high anomalies of barium, with elevated levels of coper, zinc, manganese, and arsenic. One sample showed 12 ppb of gold, and there were minor showings (up to 5 ppb) of palladium. **Pages 1,2, 3, 14 and 15 of my diary** refer to work in Clinton Creek, and sample locations are shown on **Map 2.** Assay results from Clinton Creek are marked with a **"K" on the attached assay certificates.**

Marten Creek is a left limit tributary of the Fortymile River located approximately 20 km upstream of its confluence with the Yukon River. Marten Creek has a steep walled valley with many sheer rock cliffs. Most of the outcrops are of a foliated schist. Small quartz veins and stringers are common throughout the valley. I prospected this area taking both hardrock and soil samples. Work in Marten Creek is referred to on **pages 11, 12, 13, 18, 29, 30, 31, 39, and 40, of my diary**. Sample locations are shown on **Map 3**. Assays from Marten Creek are marked with **"C" on the assay certificates.**

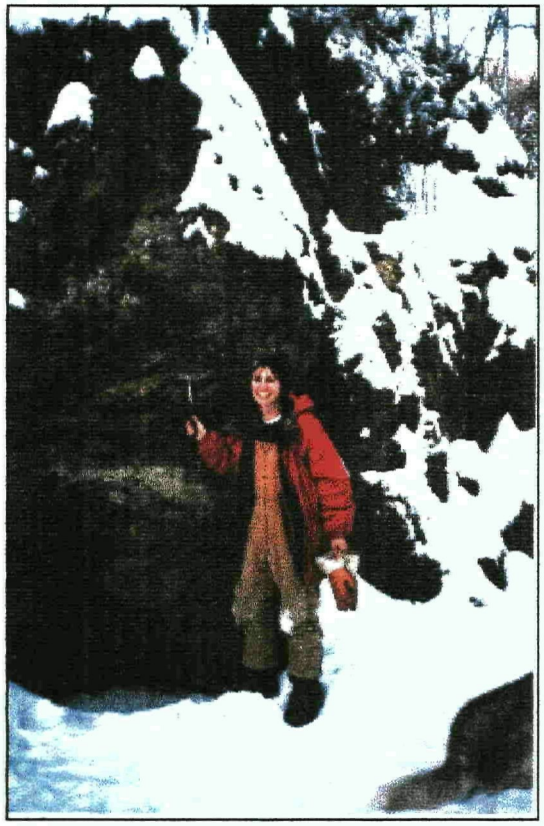


***Photo 4** - Sampling a foliated schist outcrop laced with quartz stringers in Marten Creek*

Assays from the hardrock samples showed traces of gold, platinum and palladium (up to 4, 3, and 8 ppb respectively). The soil samples from Marten Creek had strong indications of precious metals with values of up to 43,572 ppb of gold, up to 367 ppb of platinum, and up to 31 ppb of palladium.

I took some soil samples from Bar 5 Creek, the unnamed tributary located approximately 1 km upstream of Marten Creek. Unfortunately all of these samples were too small after sieving to be sent in for assay, so I did not get any results from my work in this area. Work in this area is referred to on **diary pages 23, 24, 25, and 26**, and samples from this are shown on **Map 3.**

Sparks Creek is a small left limit Fortymile River tributary, approximately 4 km in length, located 5 km upstream of Marten Creek. Because this valley does not have the numerous rock outcrops and cliffs that Marten Creek has, I took a series of soil samples. Unfortunately, most of these soil samples were too small for assay after they were screened; the one which I did send out returned a value for gold of 3,212 ppb .My dairy refers to my sampling in Sparks Creek on **page 22, and 23**. The locations which I sampled are shown on **Map 4.** Assays from Sparks Creek are coded with an **"E" on the assay certificates**.

Brown's Creek is a large right limit tributary of the Fortymile River, located approximately 10 km upstream of Marten Creek. Brown's Creek has a broad valley, containing numerous rock cliffs and outcrops. I took both hardrock and soil samples from the first km upstream of the confluence of Brown's Creek and the Fortymile River. The only hard rock sample from this area which I had assayed had only 2 ppb of gold; however, the soil samples showed gold values of up to 843 ppb of gold, and 7 ppb of platinum. **Diary pages 48, 49, and 50** describe my work in Brown's Creek. Sample locations are shown on **Map 4**. Results from samples form Brown's Creek are marked with **"F" on the assay certificates.**

d) Fortymile River valley 1 km upstream of Brown's Creek to Canyon: I prospected the middle reach of the Fortymile River commencing approximately 1 km upstream of Brown's Creek and then downstream to the Fortymile Canyon - a distance of approximately 20 km. The river in this area alternates its channel from side to side of the valley with steep rocky cliffs on one side and gravel bars on the other. Prospecting when the river was frozen allowed me to access the rocky cliffs, which would have been very difficult to sample in the summer because the river channel flows right against them. These cliffs are composed primarily of schist and basalts, with some quartz intrusions. I sampled both the quartz seams and the mafic host rock. Results of these samples did not turn up anything of interest. Samples from the area between Sparks Creek and Brown's Creek are coded on the **assay certificate with a "G"**. Samples from upstream of Brown's Creek are marked with

***Photo 5** - Large quartz seam sandwiched between layers of schist in Brown's Creek.*

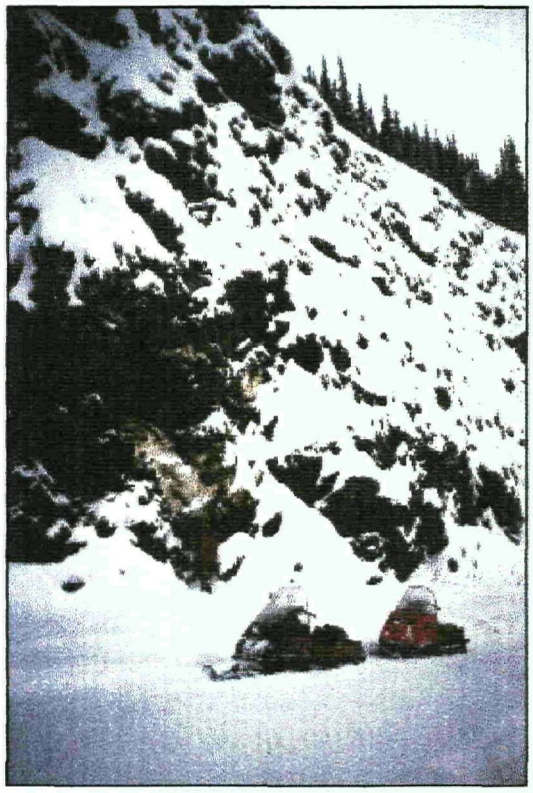


***Photo 6** - Sampling an outcrop on the Fortymile River upstream of Spark's Creek*

an"**H**", samples obtained from the portion of the Fortymile River located between Marten Creek and the canyon are marked with an "**I**". **Diary pages 16, 17, 32, 35, 36, 42, 43, 44, 45, 46, and 47** refer to the prospecting work in this area, and sample locations are noted on **Maps 2, 3 and 4.**

e) River bar bedrock from dredge cuts: I took the opportunity to examine bedrock excavated during placer dredge mining of river gravel bars upstream of Marten Creek on the Fortymile River. Some of these dredge cuts produced coarse gold nuggets with quartz embedded in them, The fragile nature of these nuggets suggests that they have not travelled far, and therefore may have originated in local quartz seams. Because I know which areas along the river were good producers of coarse gold, I thought it may be productive to examine the underlying hardrock in these vicinities. I traversed the tailings from dredge cuts on foot looking for bedrock chunks left on the surface of the tailings. This river bedrock is comprised of a heavy, black schist. In places this schist is decomposed to a greasy, sticky graphitic schist. This black schist is interlaced with white quartz veinlets (which may be the source of the placer gold). I was disappointed to find that bedrock showed only minor traces of mineralization, 2 and 3 ppb - of gold. Samples from the dredge cut tailings are marked **"J" on the assay certificates**, sample locations are shown on **Map 3**, and the work is discussed on **diary pages 4, 5 and 6.**

5. Conclusions and recommendations

My soil samples from Marten and Sparks Creeks showed good potential. Gold values are significant and platinum and palladium results are also elevated. Because these two creeks drain the same ridge, I believe that the high precious metals showings may indicate the presence of a hardrock deposit. It is unlikely that the gold found in these assays is placer gold because the percentage of silver in the samples is approximately 7%, whereas placer gold from the area assays at approximately 18% silver.

I recommend a structured and detailed soil sampling program in both the Marten Creek and Sparks Creek drainages. I believe that the platinum and palladium anomalies in this area showed particular promise, given the current price of these metals.

Elevated levels of arsenic, bismuth, and antimony are associated with major gold plays in Alaska; the Donlin (?) Creek and True North mines are associated with high levels of antimony, the Fort Knox mine has high bismuth associations, and Pogo find is associated with arsenic and bismuth. Mesothermal quartz or mother lode (listwanite) type deposit model may be applicable to the Cone Hill for the following reasons:

- there is an elevated level of indicator minerals including arsenic, iron, and chromium,
- the area is located in a known placer producing area
- there is serpentine present in the sample area
- there are numerous quartz veins and veinlets (which are barren)

Although the samples from the Cone Hill and riprap pit areas did not return the gold values which I had hoped for (except for one sample showing 163 ppb of gold), they did have elevated levels of indicator mineralization of a listwanite type deposit. For example, arsenic levels in some samples were quite high. Given the distance over which these anomalies occur, I recommend further prospecting in these areas.

Addtional Information

People who worked on the project

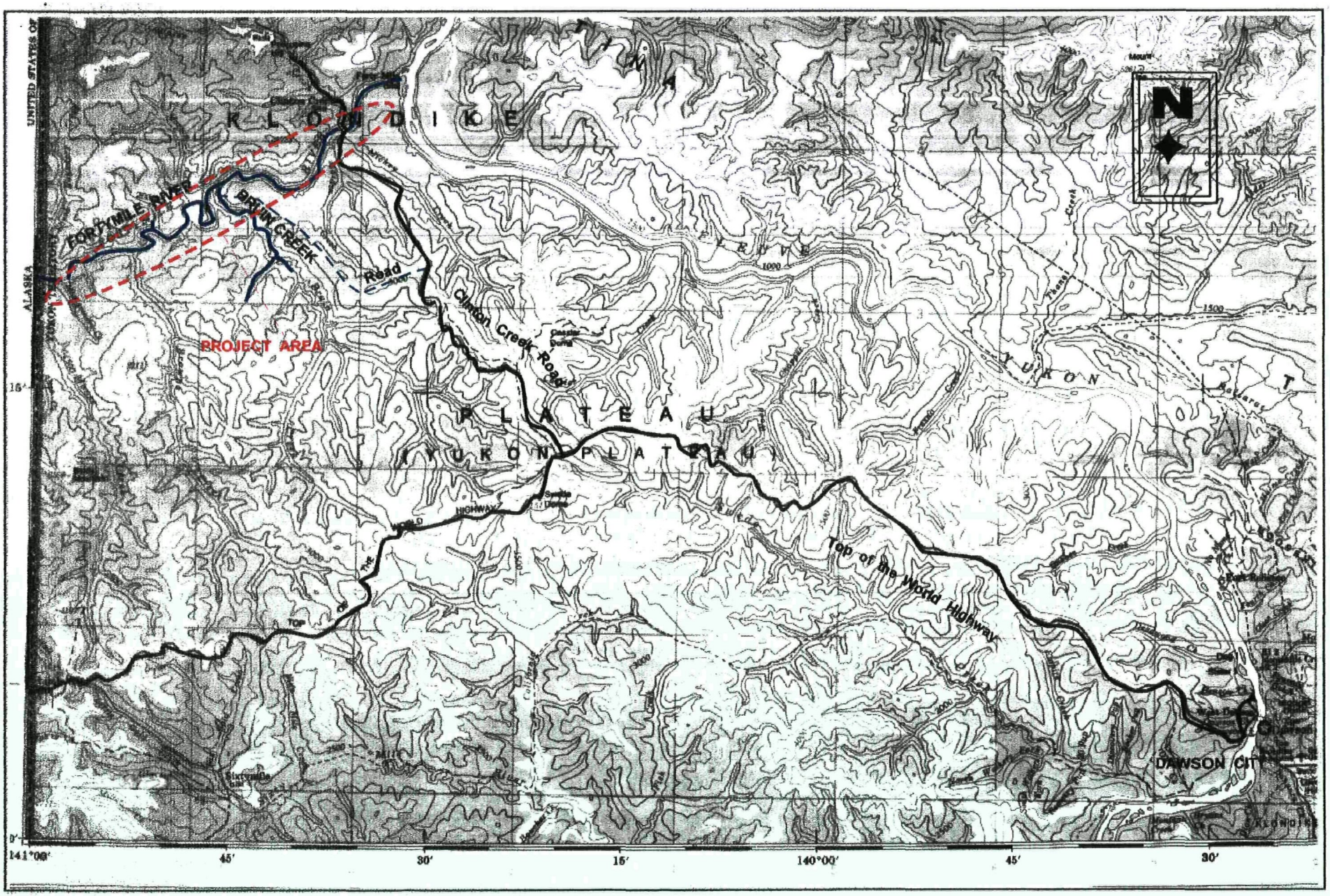
Leslie Chapman	Dawson City
Thomas Claxton	Dawson City
William Claxton	Dawson City

Area Investigted

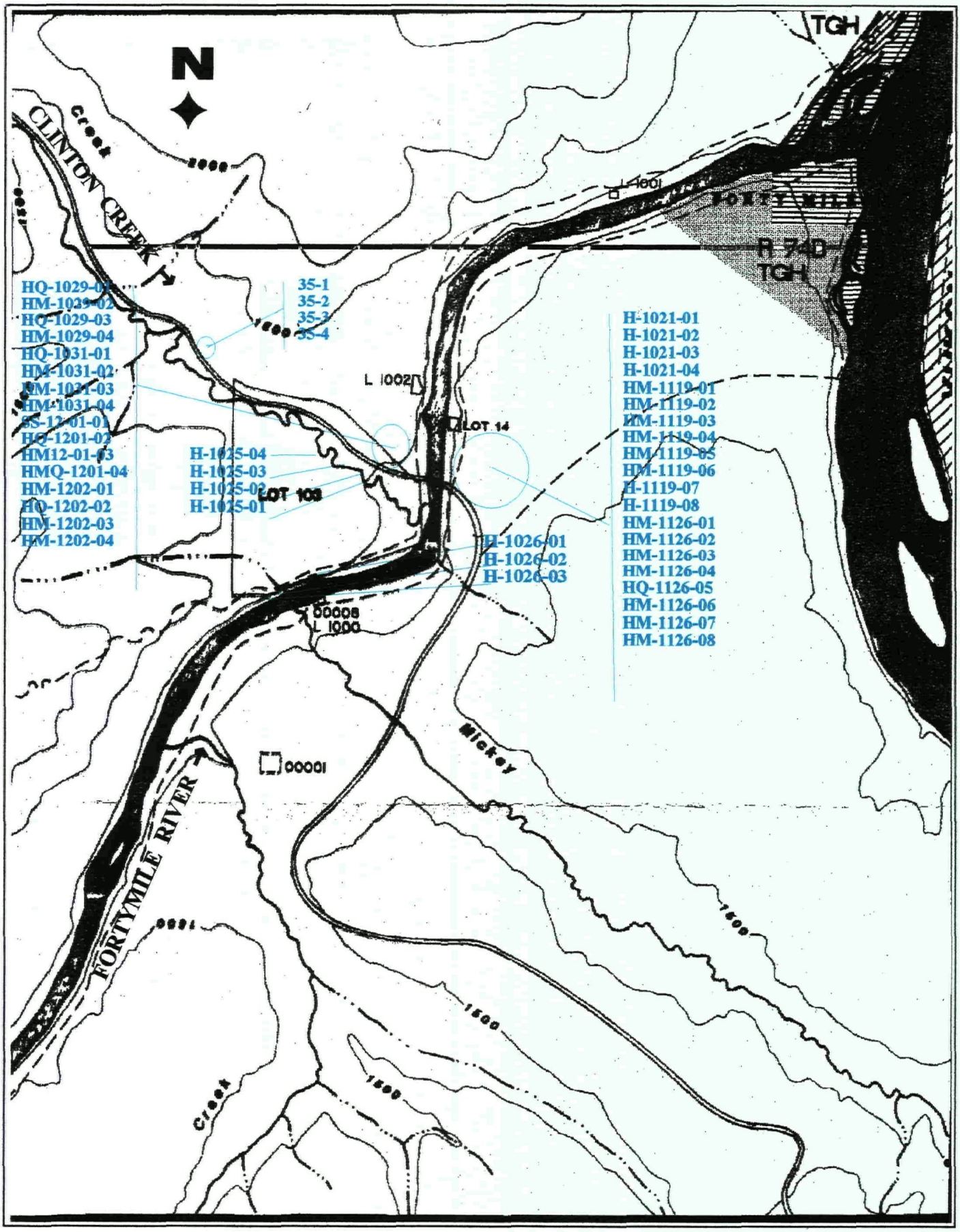
Fortymile River drainage, located on claim sheet 116C-7

Report Preparation

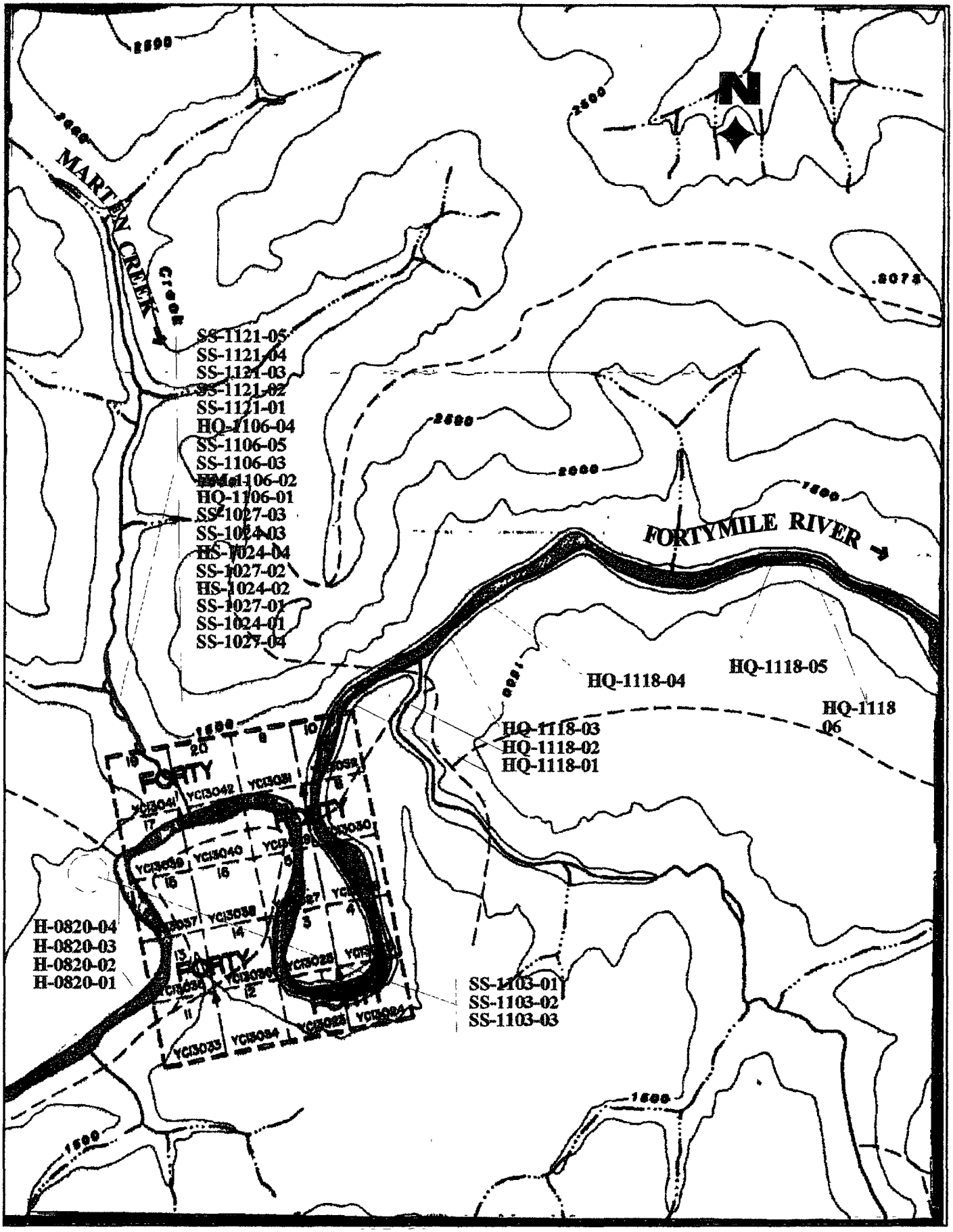
Leslie Chapman prepared the report in 30 manhours.



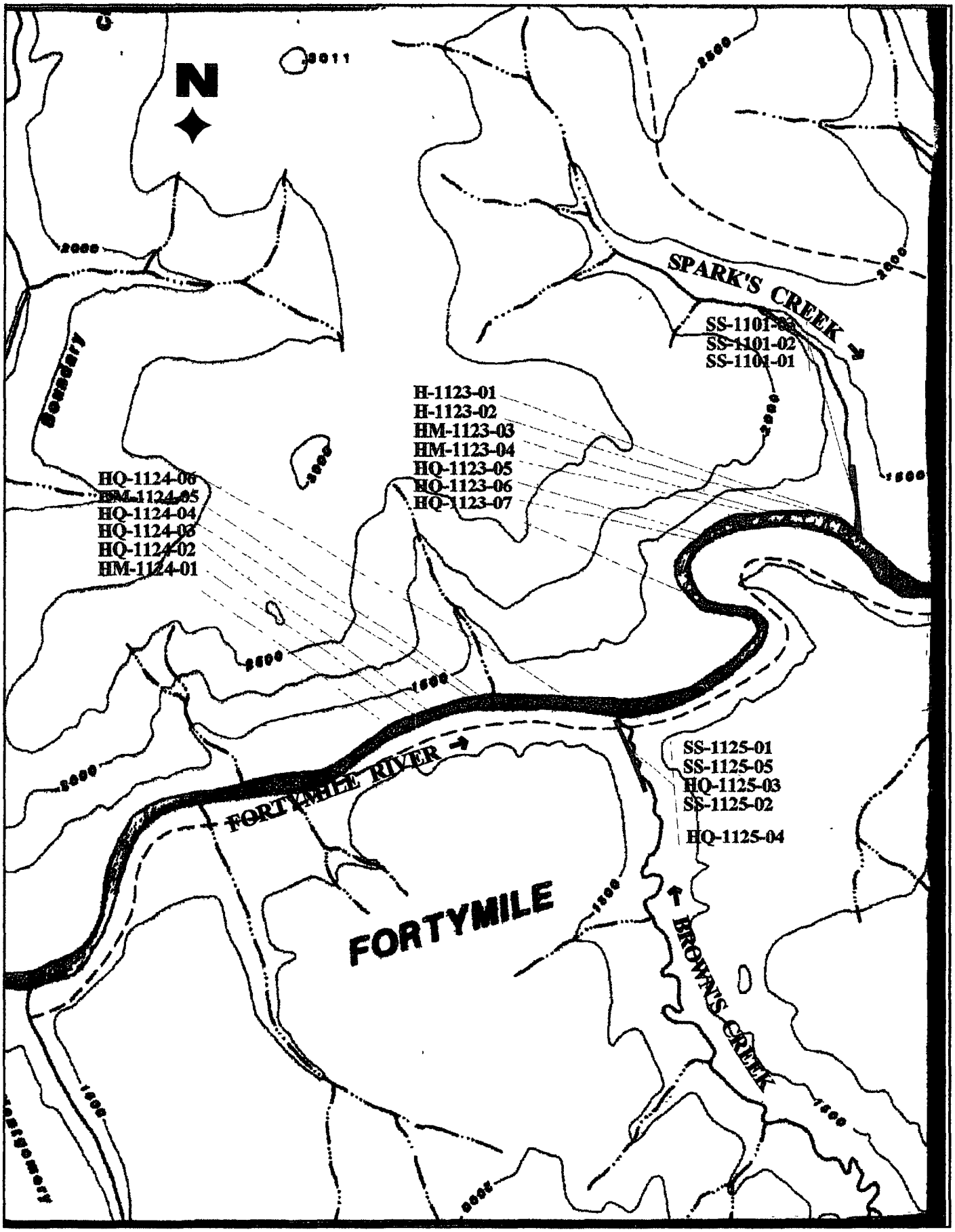
MAP 1 - PROPERTY LOCATION (from "DAWSON" Map Sheet 116B & C) scale: 1" = 6 miles (approx) 9



MAP 2 - Sample Locations, Lower Fortymile Area scale: 1cm= 1.25 km approx.



MAP 3 - Sample Locations Mid-Reach Fortymile Area scale: 1cm = 1.25 km approx



MAP 4 - Sample Locations Fortymile Area Upriver **scale: 1 cm = 1.25 km approx**

ACME ANALYTICAL LABORATORIES LTD. (ISO 9002 Accredited Co.)
852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716

GEOCHEMICAL ANALYSIS CERTIFICATE

Fortunille Placer File # 9900792 Page 1

Box 450, Queen City BC V0K 2K0 Submitted by: Emilie Ahrens

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au** ppb	Pt** ppb	Pd** ppb
STD DS4/FA100	27	65	38	167	5.9	37	12	738	3.34	95	19	<2	21	28	24	0	28	26	82	.55	.090	19	190	.60	149	.89	18	1.98	.04	18	17	46	49	45
STANDARD G-2	2	3	5	44	<.3	3	5	526	2.15	<2	<8	<2	5	72	<.2	4	<3	84	.55	.098	9	89	.61	232	.13	<3	1.01	.08	.58	3	1	1	<1
A HM 112607	<1	6	5	17	<.3	3402	70	286	3.98	10	<5	<2	<2	77	<.2	<3	<3	25	.98	.904	1	1411	12.02	1132	<.01	13	28	.01	.02	<2	<1	5	<1
A HM 112606	<1	6	<3	20	<.3	2804	89	197	5.96	5	<5	<2	<2	379	<.2	7	6	53	2.11	.004	<1	1843	18.28	698	.01	8	75	.01	.02	<2	<1	<1	<1
A HM 120202	<1	11	<3	21	<.3	986	47	842	4.43	1491	<8	<2	<2	564	.4	301	<3	25	9.67	.003	<1	429	10.95	524	.01	<3	04	.01	.02	<2	2	2	2
B HM 1202032	<1	9	7	104	.3	459	61	836	4.85	186	<8	<2	2	1267	8	51	<3	24	14	23	.004	<1	549	8	85	58	.01	<3	.06	.01	.03	2	<1	4	2
B HM 1202038	<1	13	15	64	<.3	68	19	1865	6.07	116	<8	<2	4	304	4	6	<3	13	7	70	.131	13	41	3.06	97	<.01	<3	.65	.03	.14	<2	<1	<1	<1
C HM 1186032	5	61	8	52	.7	36	3	42	1.62	12	<8	<2	2	36	1.0	3	4	46	.42	.190	3	73	.06	91	<.01	<3	.28	.01	.14	2	4	5	8
E HM 102904	<1	45	5	103	.6	132	31	382	5.32	18	<8	<2	4	56	<.2	10	<3	72	.80	.243	21	168	2.73	68	.01	<3	2.64	.01	.08	<2	6	1	<1
E HM 207102	1	1095	6	106	.5	212	31	625	4.59	6	<8	<2	6	188	<.2	3	<3	68	1.67	.217	39	93	2.10	196	<.01	<3	.44	.01	.15	<2	<1	<1	<1
E HM 202103	1	28	6	121	<.3	106	34	652	4.66	3	<8	<2	5	79	<.2	8	<3	35	1.76	.077	40	17	95	745	.01	<3	.43	.01	.20	2	<1	<1	<1
E HM 208104	1	56	5	129	4	131	34	1115	5.83	8	<8	<2	6	169	<.2	9	<3	46	2.34	.222	44	82	1.20	208	<.01	<3	.45	.01	.12	<2	<1	<1	<1
H HM 110703	2	21	8	10	<.3	28	6	882	.67	3	<8	<2	<2	98	.6	<3	<3	6	3.64	.017	9	12	.27	387	<.01	<3	.17	.01	.06	2	1	<1	<1
A HM 111901	1	8	<3	34	<.3	1201	67	1308	4.18	261	<8	<2	<2	442	.4	292	<3	14	1.91	.006	<1	469	11.47	130	<.01	<3	.05	<.01	.03	<2	<1	2	<1
A HM 111902	<1	14	4	15	<.3	1192	61	131	2.63	6	<8	<2	<2	15	<.2	<3	3	27	.88	.014	<1	1307	11.73	699	<.01	13	.48	<.01	.02	<2	2	4	8
A HM 111904	<1	4	<3	43	<.3	1088	80	688	3.33	94	<8	<2	<2	402	2	197	<3	18	1.94	.004	<1	685	15.14	139	<.01	<3	.05	<.01	.03	<2	<1	2	1
A HM 111905	<1	2	3	19	<.3	837	36	278	2.60	163	<8	<2	<2	620	3	228	<3	14	3.21	.008	<1	364	14.28	73	<.01	<3	.08	.01	.03	2	<1	2	<1
A HM 111906	<1	2	<3	13	<.3	1.48	63	426	3.51	68	<8	<2	<2	280	.2	187	<3	14	1.83	.013	<1	478	17.45	147	<.01	<3	.06	.01	.03	<2	<1	2	<1
A HM 111909	1	9	7	16	<.3	1205	48	653	1.39	174	<8	<2	<2	675	.3	190	<3	28	3.31	.036	1	471	11.96	206	<.01	<3	.06	.01	.02	2	2	<3	<1
A HM 112102	<1	89	43	24	.3	1323	64	877	3.13	317	<8	<2	<2	707	.5	537	<3	12	3.78	.045	<1	452	11.16	114	<.01	<3	.05	.01	.03	2	<1	3	21
RE HM 112102	1	89	7	24	<.3	1318	64	865	3.18	321	<8	<2	<2	713	4	526	<3	11	3.87	.049	<1	465	11.18	115	<.01	<3	.06	.01	.03	2	1	3	1
G HM 112303	1	19	3	45	<.3	60	21	1354	2.21	6	<8	<2	<2	34	.4	14	<3	32	1.46	.040	3	16	1.78	360	.11	3	1.87	.05	.15	<2	2	3	<1
A HM 112501	1	11	<3	16	<.3	3285	67	699	3.05	65	<8	<2	<2	61	2	17	<3	19	.64	.005	<1	537	17.43	126	<.01	4	10	.01	.01	2	3	2	1
A HM 112502	<1	22	3	14	<.3	3481	56	898	4.70	55	<8	<2	<2	107	.2	98	3	23	.64	.005	<1	588	20.13	558	<.01	5	15	.01	.01	<2	<1	4	2
A HM 112503	<1	3	<3	13	<.3	3224	61	543	3.71	9	<8	3	<2	17	.2	12	<3	19	.28	.006	<1	1042	15.71	297	<.01	10	09	.01	.02	3	<1	2	4
A HM 112604	<1	6	<3	17	<.3	3528	76	508	4.10	3	<8	<2	<2	37	<.2	<3	<3	28	.59	.006	<1	1177	15.16	822	<.01	6	38	.01	.02	<2	<3	4	2
A HM 112605	<1	6	<3	10	<.3	3825	86	597	4.38	30	<8	<2	<2	91	<.2	5	<3	38	1.02	.004	<1	1041	16.26	2528	<.01	10	31	.01	.02	<2	<1	2	2
A HM 112607	<1	6	5	17	<.3	3402	70	286	3.98	10	<5	<2	<2	77	<.2	<3	<3	25	.98	.004	1	1411	12.02	1132	<.01	13	28	.01	.02	<2	<1	5	<1
A HM 112606	<1	6	<3	20	<.3	2804	89	197	5.96	5	<5	<2	<2	379	<.2	7	6	53	2.11	.004	<1	1843	18.28	698	.01	8	75	.01	.02	<2	<1	<1	<1
A HM 120202	<1	11	<3	21	<.3	986	47	842	4.43	1491	<8	<2	<2	564	.4	301	<3	25	9.67	.003	<1	429	10.95	524	.01	<3	04	.01	.02	<2	2	2	2
B HM 1202032	<1	9	7	104	.3	459	61	836	4.85	186	<8	<2	2	1267	8	51	<3	24	14	23	.004	<1	549	8	85	58	.01	<3	.06	.01	.03	2	<1	4	2
B HM 1202038	<1	13	15	64	<.3	68	19	1865	6.07	116	<8	<2	4	304	4	6	<3	13	7	70	.131	13	41	3.06	97	<.01	<3	.65	.03	.14	<2	<1	<1	<1
C HM 1186032	5	61	8	52	.7	36	3	42	1.62	12	<8	<2	2	36	1.0	3	4	46	.42	.190	3	73	.06	91	<.01	<3	.28	.01	.14	2	4	5	8
E HM 102904	<1	45	5	103	.6	132	31	382	5.32	18	<8	<2	4	56	<.2	10	<3	72	.80	.243	21	168	2.73	68	.01	<3	2.64	.01	.08	<2	6	1	<1
E HM 207102	1	1095	6	106	.5	212	31	625	4.59	6	<8	<2	6	188	<.2	3	<3	68	1.67	.217	39	93	2.10	196	<.01	<3	.44	.01	.15	<2	<1	<1	<1
E HM 202103	1	28	6	121	<.3	106	34	652	4.66	3	<8	<2	5	79	<.2	8	<3	35	1.76	.077	40	17	95	745	.01	<3	.43	.01	.20	2	<1	<1	<1
E HM 208104	1	56	5	129	4	131	34	1115	5.83	8	<8	<2	6	169	<.2	9	<3	46	2.34	.222	44	82	1.20	208	<.01	<3	.45	.01	.12	<2	<1	<1	<1
H HM 110703	2	21	8	10	<.3	28	6	882	.67	3	<8	<2	<2	98	.6	<3	<3	6	3.64	.017	9	12	.27	387	<.01	<3	.17	.01	.06	2	1	<1	<1
A HM 111901	1	8	<3	34	<.3	1201	67	1308	4.18	261	<8	<2	<2	442	.4	292	<3	14	1.91	.006	<1	469	11.47	130	<.01	<3	.05	<.01	.03	<2	<1	2	<1
A HM 111902	<1	14	4	15	<.3	1192	61	131	2.63	6	<8	<2	<2	15	<.2	<3	3	27	.88	.014	<1	1307	11.73	699	<.01	13	.48	<.01	.02	<2	2	4	8
A HM 111904	<1	4	<3	43	<.3	1088	80	688	3.33	94	<8	<2	<2	402	2	197	<3	18	1.94	.004	<1	685	15.14	139	<.01	<3	.05	<.01	.03	<2	<1	2	1
A HM 111905	<1	2	3	19	<.3	837	36	278	2.60	163	<8	<2	<2	620	3	228	<3	14	3.21	.008	<1	364	14.28	73	<.01	<3	.08	.01	.03	2	<1	2	<1
A HM 111906	<1	2	<3	13	<.3	1.48	63	426	3.51	68	<8	<2	<2	280	.2	187	<3	14	1.83	.013	<1	478	17.45	147	<.01	<3	.06	.01	.03	<2	<1	2	<1
A HM 111909	1	9	7	16	<.3	1205	48	653	1.39	174	<8	<2	<2	675	.3	190	<3	28	3.31	.036	1	471	11.96	206	<.01	<3	.06	.01	.02	2	2	<3	<1
A HM 112102	<1	89	43	24	.3	1323	64	877	3.13	317	<8	<2	<2	707	.5	537	<3	12	3.78	.045	<1	452	11.16	114	<.01	<3	.05	.01	.03	2	<1	3	21
RE HM 112102	1	89	7	24	<.3	1318	64	865	3.18	321	<8	<2	<2	713	4	526	<3	11	3.87	.049	<1	465	11.18	115	<.01	<3	.06	.01	.03	2	1	3	1
G HM 112303	1	19	3	45	<.3	60	21	1354	2.21	6	<8	<2	<2	34	.4	14	<3	32	1.46	.040	3	16	1.78	360	.11	3	1.87	.05	.15	<2	2	3	<1

GROUP 1D - 0.50 GM SAMPLE LEACHED WITH 3 ML 3-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 10 ML, ANALYSED BY ICP-ES
UPPER LIMITS - AG, AS, BE, W - 100 PPM; MO, CU, PB, ZN, NI, MN, AS, V, LA, CR - 10,000 PPM
ARRAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN NI > 10, AG > 30 PPM & AU > 1000 PPB
- SAMPLE TYPE: ROCK Au** Pt** & Pd** GROUP 3B BY FIRE ASSAY & ANALYSIS BY ULTRA/ICP.
Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: DEC 14 1999 DATE REPORT MAILED: Dec 23/99 SIGNED BY .....D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of the analysis only. Data FA

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppb	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Hg ppb	Sc ppm	Tl ppb
[illegible] 120204	1	30	5	183	<.3	35	11	529	2.[illegible]	53	<8	<2	5	041	<.2	3	<3	14	3.63	.158	35	14	.83	391	<.01	3	.22	01	26	<5	1	<1	<1
[illegible] 120104	1	14	4	3	<.3	17	4	552	.[illegible]	4	<8	<2	4	509	<.1	<3	<3	8	10.39	.052	9	11	.23	22	<.01	<3	.10	.03	.15	<5	<1	<1	<1
[illegible] 102801	1	3	<3	18	< 3	5	2	190	.[illegible]	6	<8	<2	<2	573	.5	<3	<3	3	21	68	.186	1	7	.28	881	<.01	<3	.03	.01	.02	3	<1	<1	<1
[illegible] 102803	2	8	11	49	< 3	24	6	262	1.[illegible]	29	<8	<2	<2	96	<.2	3	<3	6	3	01	822	5	19	.69	279	<.01	<3	.07	01	.04	2	<3	<1	<1
[illegible] 880181	1	68	80	176	1.0	94	92	632	6.[illegible]	964	9	<2	7	69	<.2	<3	<3	8	.44	.070	36	13	.81	188	<.01	4	.28	.02	.18	3	193	<1	<1
[illegible] 110604	2	6	8	21	.8	7	1	18	.[illegible]	10	<8	<2	<2	8	<.2	<3	<2	2	98	.002	2	15	.03	229	<.01	<5	.05	<.01	03	2	8	<1	<1
[illegible] 110701A	2	84	4	17	.6	17	5	88	1.[illegible]	20	<8	<2	<2	8	<.2	<3	<3	6	.03	.010	2	18	.11	58	.01	<3	21	<.01	08	3	5	<1	<1
[illegible] 110701B	2	5	<3	7	< 3	7	1	30	.[illegible]	8	<8	<2	<2	9	.2	<3	<3	2	.03	.002	<1	23	04	24	<.01	<3	05	<.01	.01	3	<1	<5	<1
[illegible] 110705	1	21	<3	11	<.3	9	3	750	.[illegible]	8	<8	<2	2	197	<.2	6	<3	9	1.68	.016	7	18	1.28	343	<.01	8	.15	.02	.09	3	<1	<1	<1
[illegible] 113604	2	15	<3	9	<.3	19	2	220	.[illegible]	19	<8	<2	<2	120	<.2	<3	<3	7	2.96	.017	2	21	.72	43	.[illegible]	<3	.15	.02	.01	3	<1	<1	<1
[illegible] 113606	2	9	7	39	.3	31	5	738	1.[illegible]	9	<8	<2	8	14	< 2	<3	<3	6	.22	.015	12	38	.39	42	.01	<3	.61	01	15	4	<1	<1	<1
[illegible] 113606A	2	6	3	25	.3	3	2	214	2.[illegible]	2	<8	<2	9	7	2	<3	<3	2	.10	.013	24	12	.34	429	.07	<3	.70	.03	.55	2	<1	<1	<1
[illegible] 113606B	2	4	<3	6	.3	4	1	68	.[illegible]	8	<8	<2	<2	3	<.2	<3	<3	3	.29	.008	1	35	.06	20	<.01	<3	.11	.01	.02	5	<1	<1	<1
[illegible] 113905	1	5	<3	17	.3	16	6	1018	0.[illegible]	<2	<8	<2	<2	80	<.2	3	<3	38	8.76	.004	1	88	.60	80	.03	<3	.57	.01	11	2	<1	<1	1
[illegible] 113906	1	21	<3	66	<.3	29	13	1579	2.[illegible]	3	<8	<2	<2	57	.3	4	<3	32	3.06	.069	1	53	3.43	15	.06	<3	1.52	.01	.01	3	<1	<1	<1
[illegible] HQ 113906	1	20	<3	39	<.3	15	13	1521	2.[illegible]	<2	<8	<2	<2	56	< 2	3	<3	30	8.82	.001	<1	50	1.97	14	.05	<3	1.47	01	.01	<2	<1	<1	<1
[illegible] HQ 113402	3	19	7	36	.3	17	9	80	1.[illegible]	<2	<8	<2	4	8	< 2	<3	<3	10	.19	.022	11	23	.18	81	.01	<3	.41	.01	.13	3	<1	<1	<1
[illegible] HQ 113404	1	4	4	4	<.3	3	1	103	.[illegible]	2	<8	<2	2	12	<.2	<3	<3	2	14	.008	1	8	.02	41	.01	<3	.14	.03	.06	2	<1	<1	<1
[illegible] HQ 113405	2	18	5	15	<.3	11	3	615	.[illegible]	3	<8	<2	2	63	<.2	<3	<3	5	2.53	.006	3	18	.27	281	.01	<3	.15	.01	07	4	<1	<1	<1
[illegible] HQ 113605	<1	10	3	8	<.3	612	28	2780	1.[illegible]	12	<8	<2	<2	605	.5	<3	<3	12	13.71	.004	<1	60	11.98	182	<.01	<3	.04	.01	.04	<2	<1	<1	<1
[illegible] HQ 120102	1	27	<3	22	.4	20	6	598	2.[illegible]	148	<8	<2	2	269	<.2	9	5	5	5.16	.036	5	15	1.72	91	<.01	<3	.08	03	.04	3	6	<1	<1
[illegible] HQ 120202	1	2	4	7	.7	19	1	520	.[illegible]	6	<8	<2	<2	1066	.4	<3	<3	3	30.23	.017	<1	1	.28	66	<.01	4	02	.01	01	2	<1	<1	<1
[illegible] 102704	7	48	4	59	.7	10	1	61	.[illegible]	12	<8	<2	<2	37	.1	<3	<3	13	.29	136	2	21	.03	519	<.01	<3	09	<.01	03	6	1	1	2
STANDARD C3/FA160	26	65	34	158	5.8	36	31	736	3.[illegible]	58	21	2	21	78	23.9	19	24	80	.96	.093	17	175	.58	151	.08	20	1.83	04	.18	18	47	47	46
STANDARD G-2	2	4	<3	44	<.7	8	4	516	2.[illegible]	<2	<8	<2	6	78	<.2	6	<3	43	.70	.104	8	82	.62	244	.13	<3	96	08	.51	2	<1	<2	<1

Sample type: ROCK Samples beginning 'RE' are Rep[illegible] and 'RRE' are Reject Repeats.

Data [illegible] FA

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716
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GEOCHEMICAL ANALYSIS CERTIFICATE

Fortymile Placers File # 9904793

Pulp #40. Samples Only. 27 Pulps ONLY Submitted by: Leslie Gingras

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au** ppb	Pt** ppb	Pd** ppb
SS 102401	3	172	10	128	<.3	115	44	844	7.98	8	11	<2	<1	77	.8	<3	6	280	1.57	282	12	79	2.55	908	<.01	<3	3.73	.02	1.2	<2	125	<3	<3
SS 102403	2	52	16	128	<.3	57	14	436	2.73	17	<8	<2	4	42	8	<3	3	52	.84	869	16	62	1.30	252	.07	3	1	32	.01	.13	<2	986	<3	<3
SS 102701	1	314	12	310	<.3	165	48	1205	5	89	8	<8	<2	3	34	2.7	<3	5	116	.63	135	25	133	1.56	1377	.08	<3	2	86	.01	.58	<2	964	467	31
SS 102702	2	47	13	164	< 3	64	15	586	2.77	4	<8	<2	4	28	5	<3	<3	57	.46	.087	14	65	.96	467	.05	<3	1	27	.01	.16	<2	338	8	<3
SS 110102	1	40	8	63	.5	29	10	638	2.47	8	<8	4	1	38	<.3	<3	<3	36	.67	.069	19	87	.56	2630	.08	<3	1	08	.02	.14	<2	3212	<3	<3
SS 112501	<1	22	8	57	<.3	36	9	413	1.97	14	<8	<2	4	25	2	<3	<3	39	.43	.078	12	36	.59	103	.05	3	.01	.01	.11	<2	427	<3	<3
SS 112502	2	80	12	59	<.3	44	18	928	5.16	5	<8	<2	11	77	<.3	<3	<3	21	76	836	215	10	1.3	734	.04	<3	2	26	.02	.63	<2	852	<3	<3
RE SS 112502	1	80	7	58	<.3	44	18	909	5.11	7	<8	<2	9	77	< 3	5	<3	22	75	.835	213	10	1.2	715	.03	4	2.25	.02	.62	<2	845	7	6
SS 112505	1	28	9	63	< 3	38	11	464	2.25	19	<8	<2	5	27	<.3	<3	<3	48	47	.878	17	48	.69	262	.05	<3	.99	.02	.33	<2	197	<3	<3
SS 120101	1	54	28	172	< 3	105	37	718	4.58	833	<8	<2	11	226	.2	3	<3	18	4.27	.134	26	86	2.49	156	<.01	<3	.43	.06	.11	<2	39	<3	<3
NO NUMBER C	<1	34	9	49	3.6	18	13	491	2.59	10	<8	62	7	26	<.3	5	<3	35	53	.082	12	40	78	228	.07	<3	1.19	.01	.10	<2	43972	6	6
STANDARD C3/FA100	27	67	42	164	5.6	37	11	751	3.35	57	25	>2	21	28	33.2	15	28	85	58	.091	19	190	.61	153	.09	20	1.81	.04	.17	18	47	47	44
STANDARD G-2	2	4	3	89	.3	8	4	518	2.08	3	<8	<2	4	68	<.3	<3	<3	83	61	.097	8	67	.51	223	.33	3	.93	.07	.47	7	<2	3	<3

GROUP 1D - 0.5G OF SAMPLE LEACHED WITH 3 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 10 ML, ANALYSED BY ICP-ES.
UPPER LIMITS - AG, AU, HG, W = 200 PPM; MO, CD, SB, BI, TH, U & B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM
* SAMPLE TYPE: SOIL Au** Pt** & Pd** GROUP 3B BY FIRE ASSAY & ANALYSIS BY FA/ICP.
Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: DEC 14 1999 DATE REPORT MAILED: Dec 23/99 SIGNED BY ... D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716
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GEOCHEMICAL ANALYSIS CERTIFICATE

Fortymile Placers File # 9904169

Box 580, Dawson City YT Y0B 1G0

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au** ppb	Hg** ppb	Pt** ppb
[illegible] 315-1	4	62	<8	22	<.3	10	2	55	1.33	35	<8	<2	<2	18	<.2	6	<3	8	.05	.030	<1	23	.01	1954	<.01	<3	.07	.01	.01	5	1	<9	1
[illegible] 315-2	4	39	<8	6	.7	6	1	36	.49	10	<8	<2	<2	32	<.2	21	<3	2	.02	.015	1	29	<.01	1525	<.01	<3	.05	<.01	.02	5	1	<9	3
[illegible] 3	4	46	[illegible]	29	.4	14	2	62	1.26	29	<8	<2	<2	45	.2	13	<3	10	.04	.025	3	32	.01	340	<.01	<3	.12	<.01	.05	5	12	9	5
[illegible] 315-3	4	8	[illegible]	5	<.3	5	1	30	.45	6	<8	<2	<2	25	<.2	4	<3	6	.02	.012	2	27	.01	615	<.01	<3	.11	<.01	.05	5	7	<9	4
[illegible] 315-4	4	6	[illegible]	5	<.3	5	1	33	.44	8	<8	<2	<2	25	<.2	5	<3	6	.02	.012	2	26	.01	603	<.01	<3	.10	<.01	.05	5	7	<9	2

GROUP 3B - 0.50 GM SAMPLE LEACHED WITH 3 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 10 ML, ANALYSED BY ICP-ES.
UPPER LIMITS - AG, AU, BE, W = 100 PPM; MO, CO, CD, SB, BI, TH, U & W = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.
ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB
- SAMPLE TYPE: ROCK AU** PT** PD** GROUP 3B BY FIRE ASSAY & ANALYSIS BY ULTRA/ICP. (30 gm)
Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: OCT 22 1999 DATE REPORT MAILED: Nov 4/99 SIGNED BY: C. Leong

TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of the analysis only.

Data FA

Appendix - Prospecting Diary

①

July 3/99 -

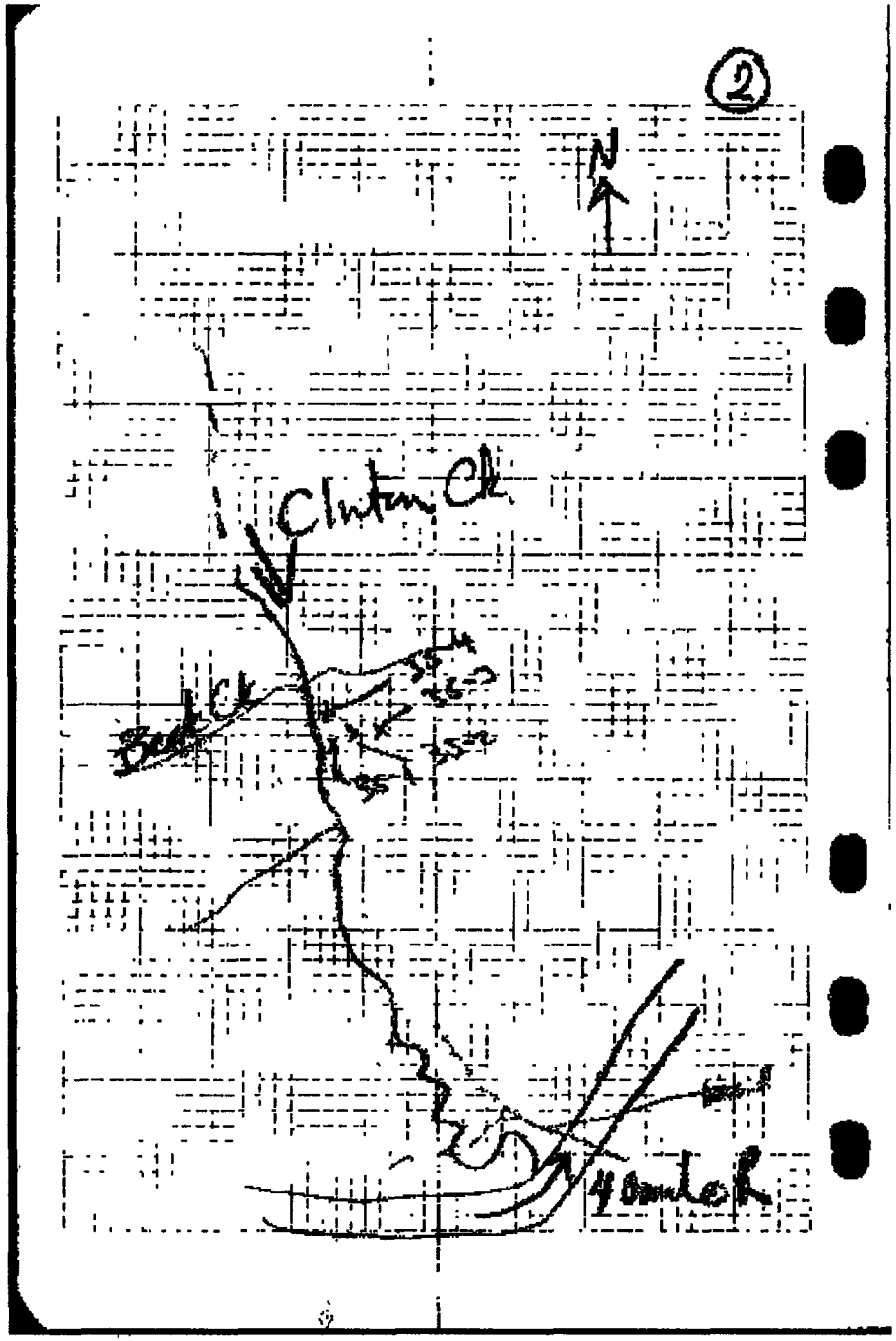
I drove from camp w/ an assistant, up Clinton Ck to the point where it is covered by Hardrock claims. I want to get an idea how many outcrops there are in this area for sampling.

There is some exposed rock along the old mine road where the hill has been bladed for road building.

We also drove the Yukon Access road (Finish Road) to get a look at the north face of 50/50 (Cone Hill).

Looking for exposed rock. Not too much on N face - 3 places is more promising. I plan to look for Bet-adale - from the road I don't see any sign of it - if it does exist.

②



(3)

July 4/99

Returned by truck to an interesting looking decomposed quartz outcrop on Clinton Ck road ~ 4km from confluence

35-1 from rubble at base of cliff - decomposed quartz

35-2 ~ 1m uphill from 35-1 similar material

35-3 ~ 5m up from 35-2 v. decomposed quartz from centre of vein - rusty

35-4 - from large boulder ~10m N. of latter samples epithermal activity?

Walked across creek valley to check out cliff there - ordinary looking schist - no

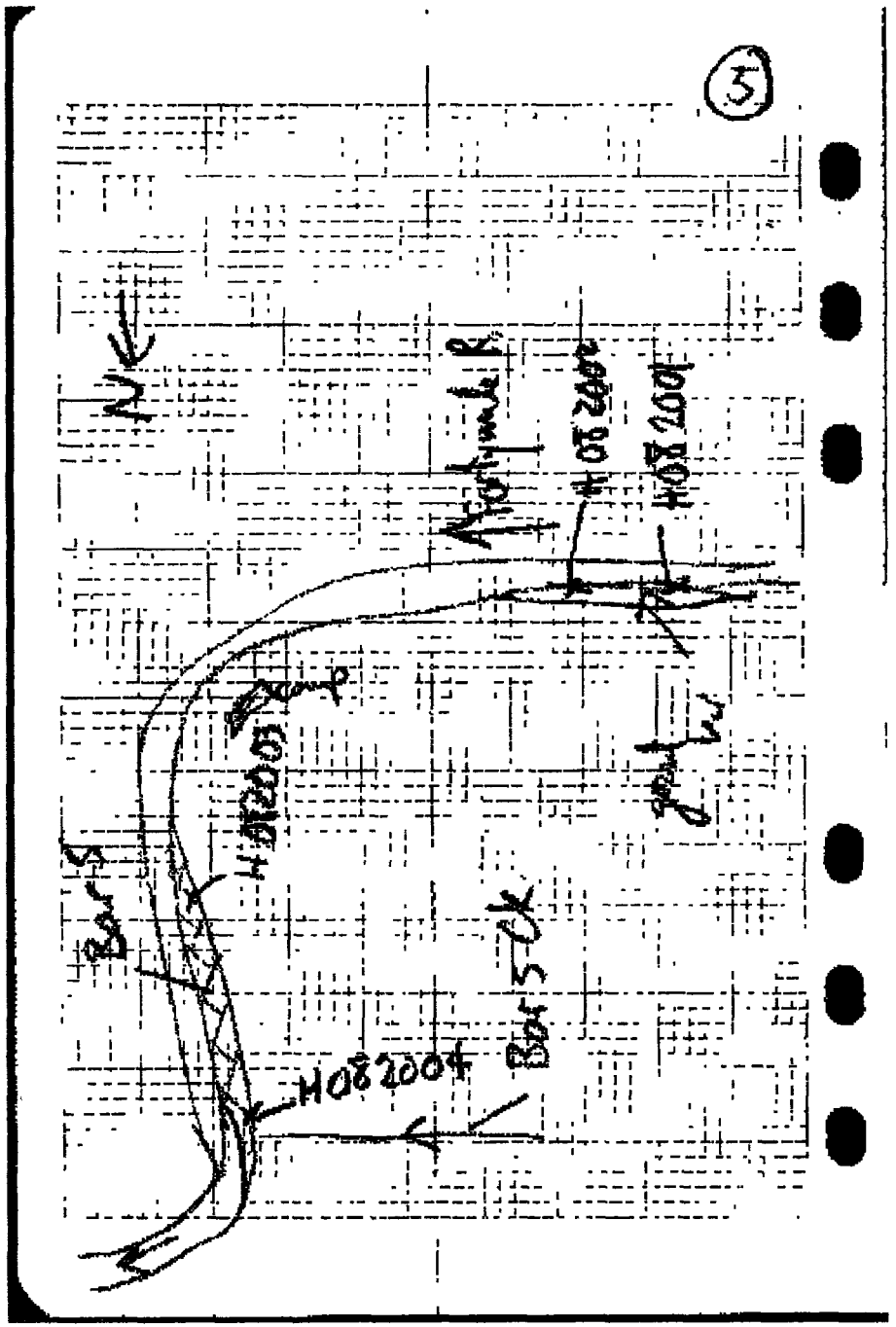
(4)

Aug 20, '99 -

Today I used the ATV to travel over dam upstream of Morton Ck - left limit - which have been created by F.M.P. I was looking for samples of bedrock from placer ext.

Examined downstream end of Bar 5 - this is the area where DIAND tech reported visible gold in chunk of excavated bedrock - but I did not see anything that interesting here - possibly has been overtaken?

H08 2001 - heavy black bedrock basalt? w/ numerous quartz veins this sample from centre dredge but ~ 2 metres schist w/ fine gold also samples bedrock in the



6

Aug 20/99 cont.

H08 2002 - sample from quartz vein in bedrock - pure white

H08 2003 - similar to 02

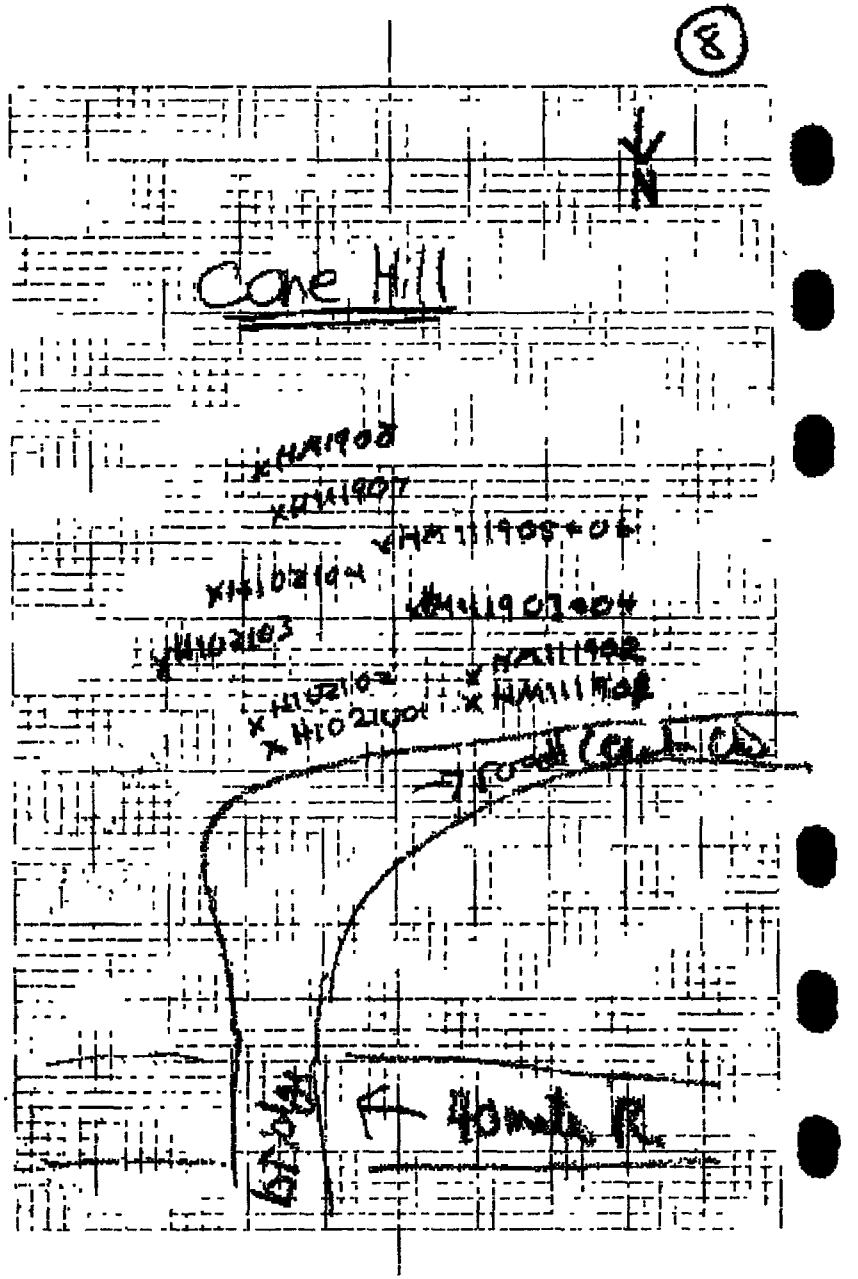
H08 2004 - schist from N. end Bar 5

(7)

Oct 16/00 -3°C cloudy, windy

I split the total km for a trip from Dawson to camp on the fortunate up Bill. I was bringing in supplies so I can stay on camp over freeze-up to carry out my prospecting project. Be nearby good out of Scrafe in Dawson tomorrow. Just about too much snow for easy truck travel.

(8)



Oct 21/99 ~ -5°C, partly cloudy (9)

H 102101 base of sc/so serpentine

HM 1021.02 close by of mafic rock

H 1021.03 - mafic w/ lots of andesite dykes

H 1021 04 - similar to #3

By 2 snowmachines w/ assistant to Cone Hill (sc/so) over the road - snow is slightly skimpy in places for snowmachines, but a little too much in other places for truck. Clinton Ck still partly open - there we walked around base of sc/so South face, encountering large boulders which have tumbled down from higher outcrops. Mafic w/ dissem pyrite, slight green. Samples are from these boulders. All Sample sites flagged w/ sample #.

(10)

Oct 22/99 ~ -7°C clear

2 snowmachines to Cone Hill to look for old adit. I heard it was on east side of the hill, so we walked all through the area. No sign of activity. Info may be false; there are no outcrops on this side, fairly heavy forest cover

Oct 23/99 -6°C mostly clear

2 snowmachines to Cone Hill again to resume search for adit. This time we approached from Fish Road (south side) - easier going, snow not so heavily treed, but still no sign of previous workings. - no samples today

(11)

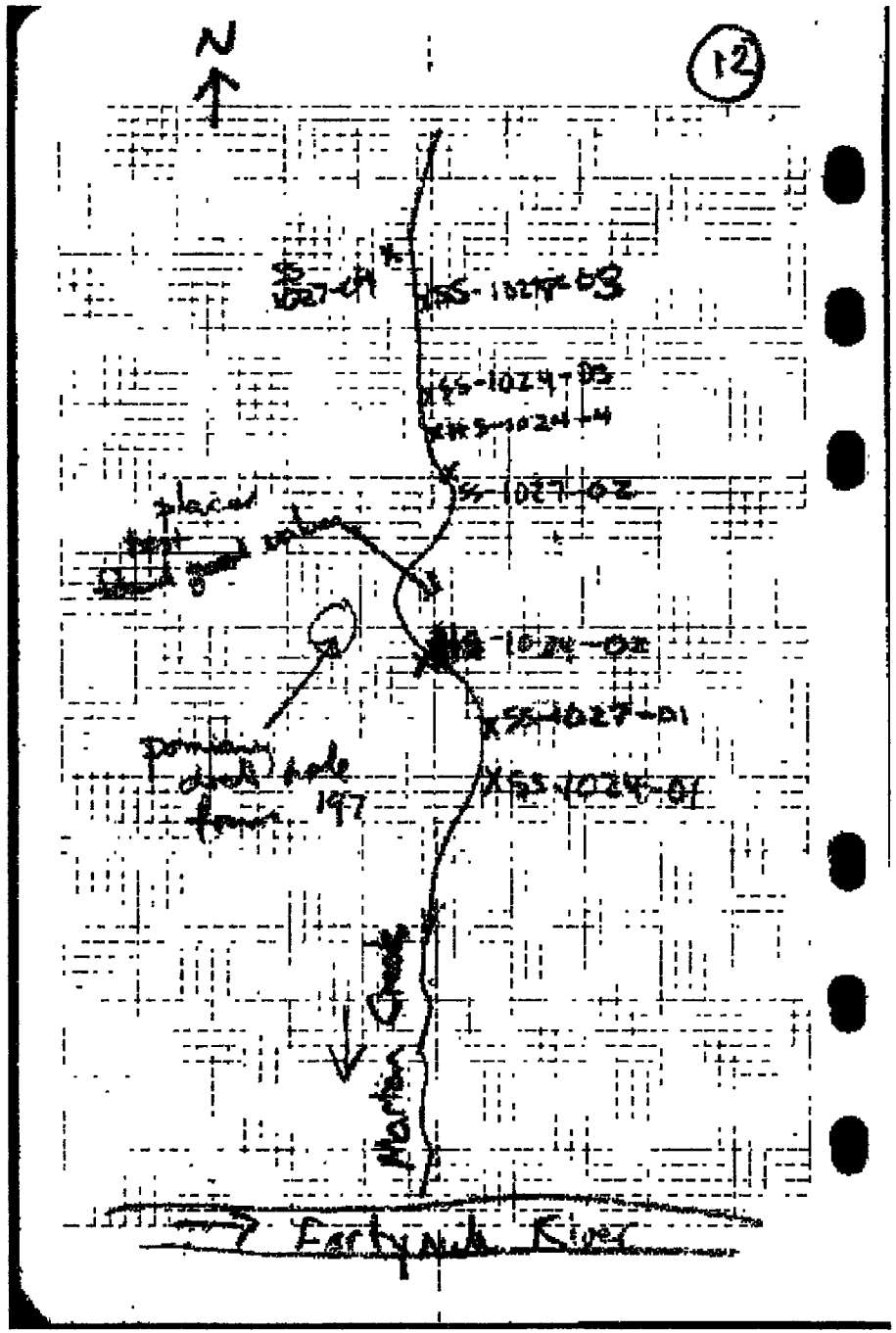
Oct. 24/99
clear + sunny ~ -10°C

walked up Marten Ck to area above North boundary of Kirk claims.

SS-1024-01 - soil sample 'B' zone red stained material from cat trail ~ ½ m below surface this sample from anaerobic red zone - mat soil is grey
photo 2-22
left limit of creek

HS-1024-02 - hardrock sample from right limit of creek ~ 2m above creek bed below bench where geol hole was drilled in placer exploration project
sample is of quartz vein approx 40cm thick - vein disappears into creek bed +

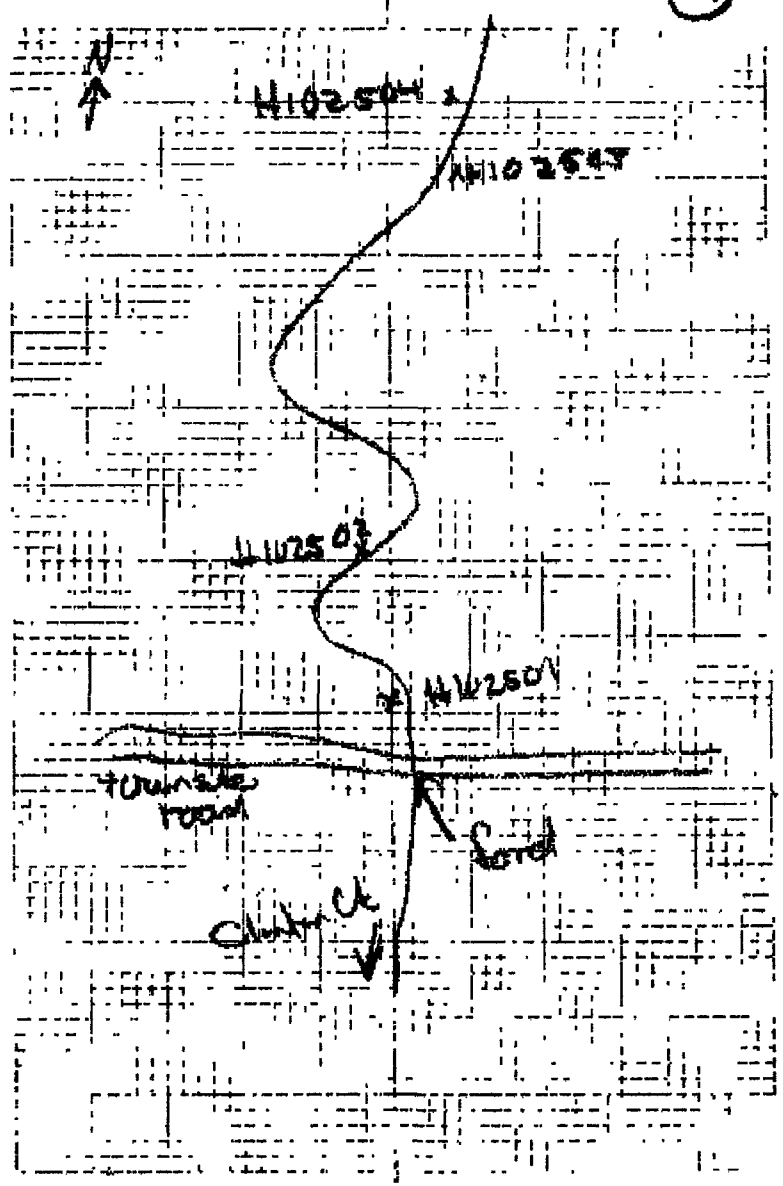
(12)



approx 45° - quartz very hard - difficult to chip off sample - not decomposed - I sliced my thumb on a shard of quartz

SS-1024-03
Soil sample from left limit of creek bank upstream of '02' bedrock sample - 'A' zone sample

HS-1024-04 hard rock sample from left limit cliff at creek bed sample is of soft mineralized seam in very fractured schist In centre of seam sampled is graphitic schist which looks very similar to graphit schist mined on Placer river bars in Forty mile R. - which are associated w/ coarse gold.



(15)

Oct 25/99 ~ -3°C, cloudy

2 snowmachines up road to Clinton Ck. - left snowmachines at the creek rather than take them thru the water again. Walked up creek (Clinton) looking at cliffs + out crops - walked up about 1½ miles.

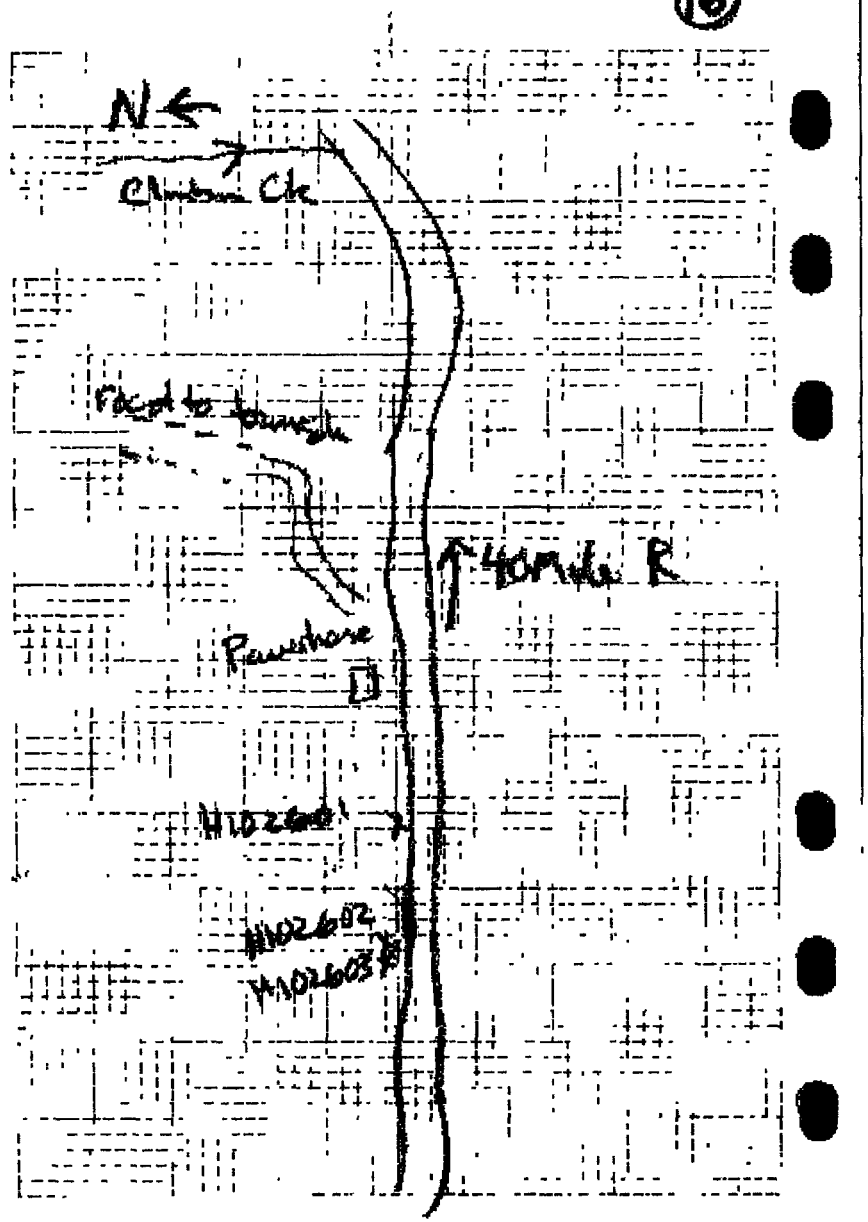
H-1025-01 crumbly mafic schist near fork

H-1025-02 small quartz veining in schist

H-1025-03 - v. foliated schist

didn't see anything too interesting in this portion of creek

(16)



(17)

Oct 26/99 -5°C cloudy

2 Snowmachines over road to Clinton Ck. Powerhouse area to look at rock exposed in cliffs along river on left bank just upstream of old Powerhouse.

light colored schist - crumbly

H-1026-01 from U. decomposed seam in schist

H-1026-02 climbed up cliff as far as I could for sample of harder schist w/ small quartz veins

H-1026-03 - serpentine

(18)

Oct 27/99 -5°C, ~2" new snow
walked up creek to refill samples from Oct 24 (Marten Ck)

SS-1027-01 - soil sample from cut bank - B zone ~ ½ m below surface - grey sand - silty - road cut

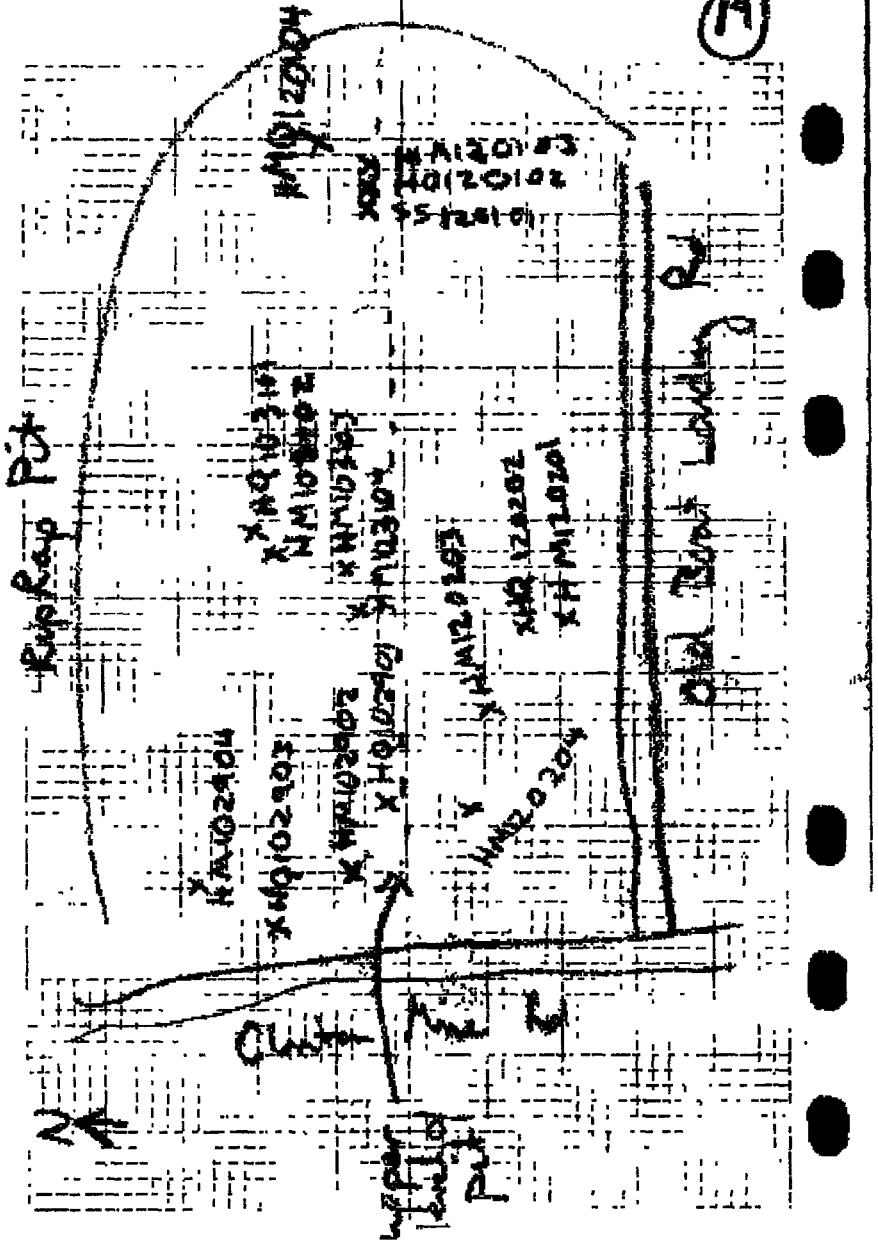
SS-1027-02 - soil sample from creek cut bank ~ 1m down - sandy

SS-1027-03 - soil sample from creek cut bank - clay about ½ m down from surface photo

SS-1027-04 soil sample from creek cut bank - reddish sandy soil near surface

sample locations are marked on map from Oct, 24

(19)



(20)

Oct 29/99 -19°C clear
1 snowmachine to rip rap borrow pit near Chatham Pt. (new road)
Samples from upper level of west wall pit

HQ 102901
cutbank material
w/ numerous quartz veins

#M 102902 cutbank material
from crest heading
[illegible] level

#C 102903 - cutbank

#M 102904
w. green schist

Sample 02 is from an area ~ 10" square where snow was melted - weird - heat vent? or possibly vent for animal hair? No tracks around.

(21)

Oct 31/99 -10°C, mostly clear

Back to riprap pit alone by snowmachine over road
sampled centre + east side of pit
upper level
HM 103101-
[illegible] rusty
quartz vein in lustrous schist
q.vein ~1 m thick
½ way up cliff

HM 103102
mafic schist
adjacent to q. vein
boulder at base

HM 103103 lustrous foliated mica schist

HM 10 13104
close to 03
rusty schist

photos

samples shown on Map from Oct 29

(22)

11/01/99

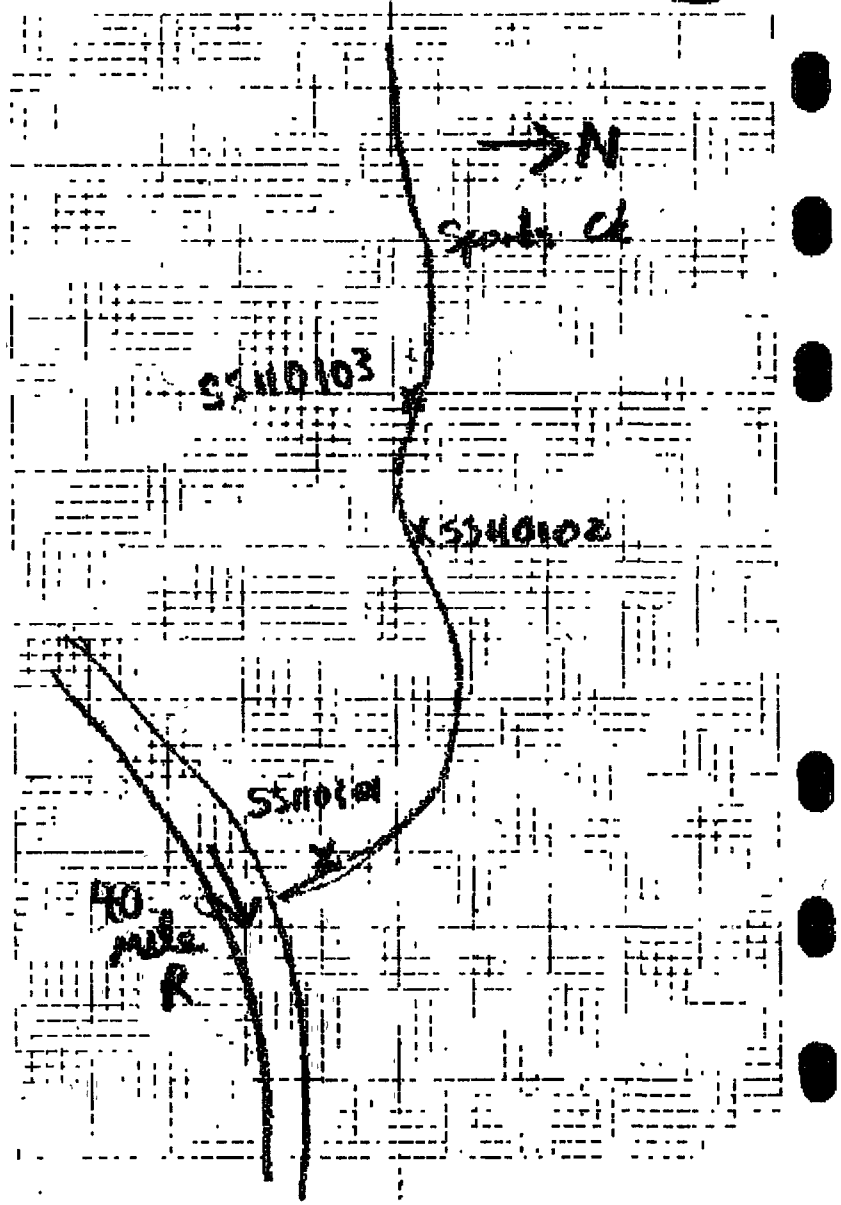
2 snowmachines on 40 mile R
to Sparks Ck (left limit tribs)
bushwacked on foot up
creek channel looking for
good spots to get soil
samples.

SS-1101-01 right limit near
mouth - sandy - B zone

SS.1101-02 left limit ~.3k
up creek A zone - clay

SS.1101-03 right limit .5k
from mouth B zone

lots of willows overgrowing creek so
tough going - little exposed
soil



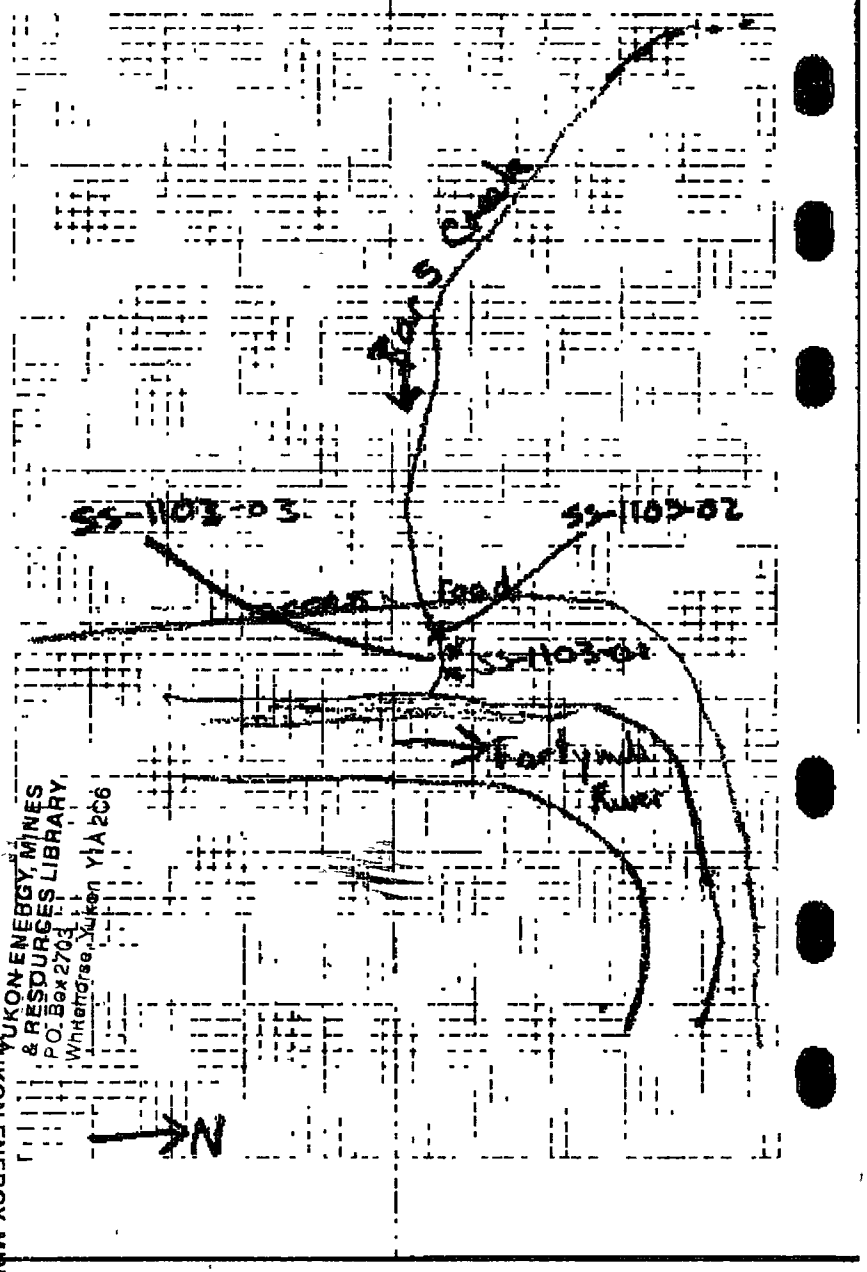
Nov. 2 -12° C mostly clear

2 snow machines over road up to small right limit trib approx ½ mile upstream of Marten Cr left limit of Fortymile

walked up trib about 1 mile to pt's oregon between 2 hills

wanted to take bedrock samples but did not find any suitable sights for sampling - creek runs under moss/muskeg + heavy willows

I'm interested in this trib area because when the river low near (+ esp upstream) the mouth of the trib was placer mined, values were high + many nuggets with quartz attached were recovered



Nov 3 -15°C mostly clear

2 Snowmachines back up to Fortymile LL trip which we wanted yesterday.

I decided to look for areas where I could take soil samples - difficult to find soil to sample -!

SS-1103-01 - next month

SS-1103-02 - sample from just under moss

SS-1103-03 - good sample of soil from cut bank

all soil samples are from 'A' zone (as per E. Wolff - Handbook for the Alaskan Prospector)

(27)

		#1	#2	#3	#4
Mo	ppm	4	4	4	4
Cu	ppm	42	19	46	6
Pb	ppm	<3	<3	3	3
Zn	ppm	28	6	29	3
Ag	ppm	<.3	.7	.4	<.3
Ni	ppm	10	6	14	5
Co	ppm	2	1	2	1
Mn	ppm	55	36	62	30
Fe	%	1.33%	.49	1.26	.45
As	ppm	35	10	29	6
U	ppm	<8	<8	<8	<8
Au	ppm	<2	<2	<2	<2
Th	ppm	<2	<2	<2	<2
Sr	ppm	18	32	43	25
Cd	ppm	<.2	<.2	.2	<.2
Sb	ppm	8	21	13	4
Bi	ppm	<3	<3	<3	<3
V	ppm	8	2	10	6
Ca	%	.05%	.02	.04	.02
P	%	.050%	.013	.025	.012
La	ppm	<1	1	3	2
Cr	ppm	23	29	32	27
Mg	%	.01	<.01	.01	.01
Ba	ppm	1539	1323	340	615
Ti	%	<.01	<.01	<.01	<.01

(28)

		#1	#2	#3	#4
B	ppm	<3	<3	<3	<3
Al	%	.07	.05	.12	.11
Na	%	.01	<.01	<.01	<.01
K	%	.1	.04	.05	.05
W	ppm	5	5	5	5
Au	ppb	1	1	12	7
Pt	ppb	<1	<1		<1
Pd	ppb	1	3	5	4

NAV 4 + called Acme Labs
for results on these items
Outline OK on sample dates on
July

29

Nov 6/99 .. -15°C mostly clear

2 snowmachines up to James Ck - some manhauling but less trailbreaking than I had thought would be required

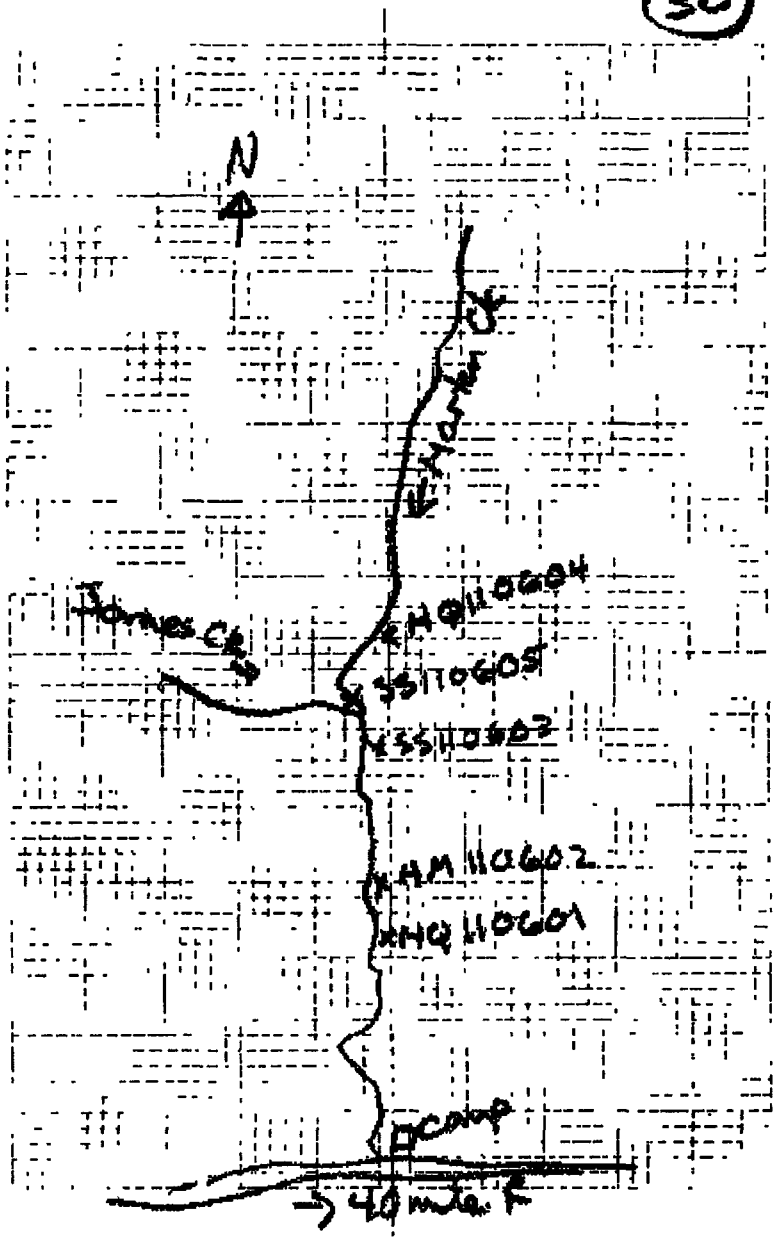
HQ-1106-01 - quartz sample from rubble from trail building - 6" quartz seam in schist.

HM-1106-02 - left limit cliff white precipitate deposit on rocks - white to yellow - some on moss above cliff on well mafic schist

SS-1106-03 Soil Sample Right limit just below James Ck

HQ-1106-04 right limit cliff above James Ck in Marble Ck some of quartz stringers in schist

30



Nov6/99 - cont. (31)

SS-1106-05
soil sample from spill pile from old pit right at confluence of Jones + Harter Ck

11/07/99 -12°C clear (32)

2 snowmachines to just upstream of Brown's Ck
Some open spots on river but mostly good traveling

HQ110701 series of quartz seams in ultramafic schist seams are rusty + crumbly in place remindant of 'Uncle Albert' quartz/schist samples from bedrock from placer bar area

HM110702 + 03
rusty mafic schist locally quite decomposed

HM110704 & HQ110705
~300 m upstream of Brown Ck left limit intensely extremely crumbly schist 05 is from rotten quartz

(33)

Nov 8/99 -12°C partly cloudy

2 snowmachines up river to Sparks Ck. walked further up creek looking for sites to scope for Thinhorn - not much exposed rock. Focus in creek valley

(34)

Nov 9/99 - -10°C cloudy

tried to go up river on 2 snowmachines

got stuck in overflow below Browns Ck - deep

managed to get snowmachine out after getting quite wet - returned to camp!

Now 8Fig - 14°C mostly clear

HM-1115-01 RL
dark schist w/ small quartz stringers
end of knife sheared off quartz vein
darker schist host rock
HQ-1115-02 RL
~ 1/8" wide downstream
rotten quartz vein - rusty

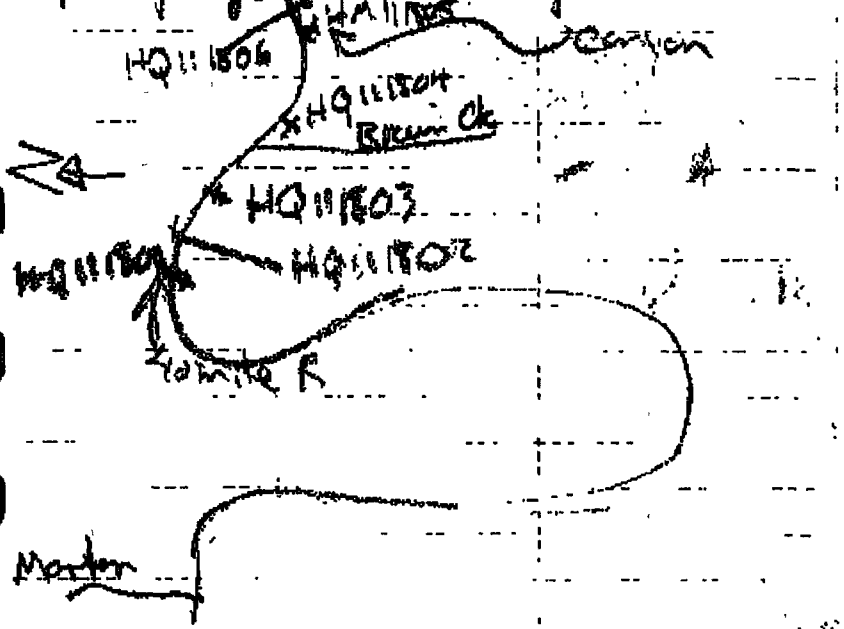
HQ 1115 03 RL
north-south quartz vein ~ 12" thick
rust stain

HQ 1115 04 Lf
100 m ds from Brum Ck series of quartz veins

HQ 1115 05
RL above canyon
fine grain in the weathered by the

HQ 1115 06 RL
in canyon
white quartz with [illegible] -photo

We took 3 snowmachines down to the canyon on the river today - some open water near Brum, but in centre of canyon, but pretty good travelling



Nov 19/99 -9°C cloudy
2 snowmachines to Coral Hill over road (37)

HM 111901 - base of SG/GO
mafic w/ mineralization
chrom mica & copper
green

HM 111902 - as 01

HM 111903 + 04 upslope
from 01 + 02 more
green coloring tho not as bright
serpentine

HM 111905 + 06
upslope from 03/04
similar mafic w/ green stain

H 111907 upslope from 05/06
serpentine w/ some
quartzite

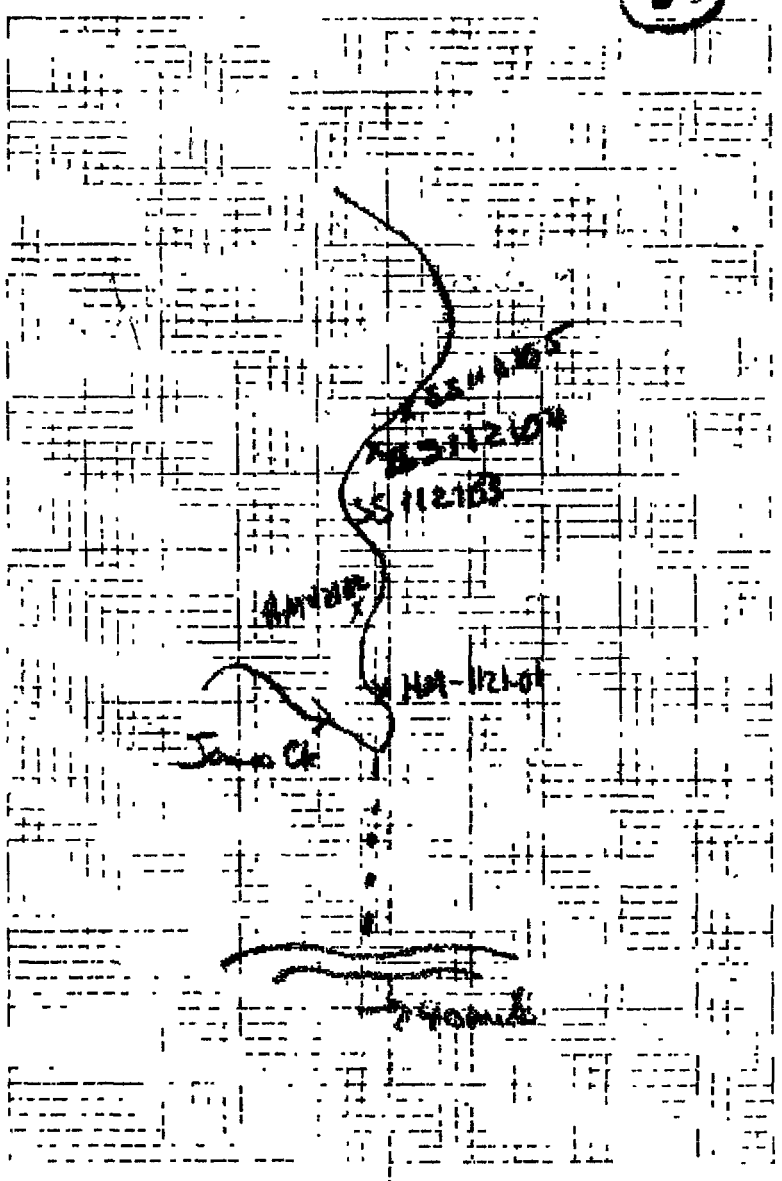
H 111908 upslope from 08
similar serpentine

Sampling base of Coral Hill
north side, samples marked on
Map from Oct 21

(38)

Nov. 20/99 -3° snowing

We took 2 snowmachines
up Marten Ck today. Various
problems caused us to turn
back: first we got one
machine stuck trying to
get up a bank - we had got
up it before, but it has
snowed alot since the last
time we went up the creek.
Then after we got unstuck
one machine quit & it took
a long time & a lot of work to get
it going again (Carb problem?)
We decided it was best to
abort & return to camp for today.



Nov 21/00 −5°C cloudy
light snow

Today I returned up Matten Ck but this time walking – there is too much snow for track vacking with an Eliason. Walked up creek past James Ck.

HM-1121-01 – dark schist w/ small quartz stringers from outcrop LL

HM 1121-02 RL – mafic

SS 1121-03 Soil sample from LL stream cut bank sandy ~ ½m down

SS 1121-04 soil sample from upturned tree roots surface

SS 112105 soil sample LL creek cut bank ~ ½m deep

(41)

Nov. 22/99 -14°C partly cloudy

2 snowmachines to re-establish trail up river past Brenya's Ck - like breaking new trail

Flagged area for sampling on LL upriver of Brenya & also upriver of Sparks Ck.

(42)

11/23/99 -12°C clear

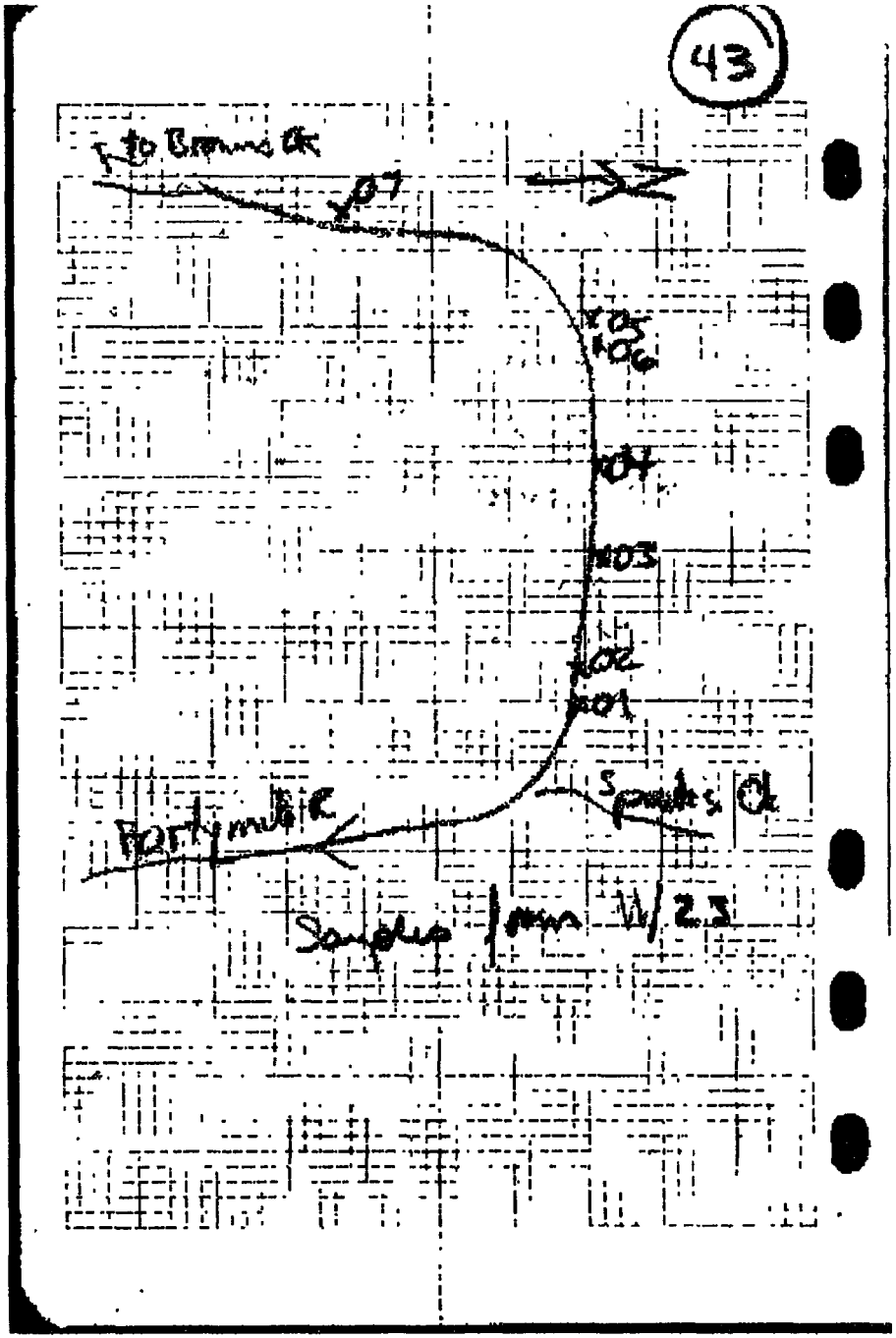
2 snowmachines upriver sample LL upstream of Sparks

H112301 - quartzite seam ~1' thick w/ hornblende in very folded sheet 1/8' mile upstream from Sparks Ck Left Limit

H112302 - immediately upstream of H112301 - seam is whiter

HM112303 - mafic basalt? some white/yellow precipitate too high up cliff to sample - similar to what we saw up Marten Ck

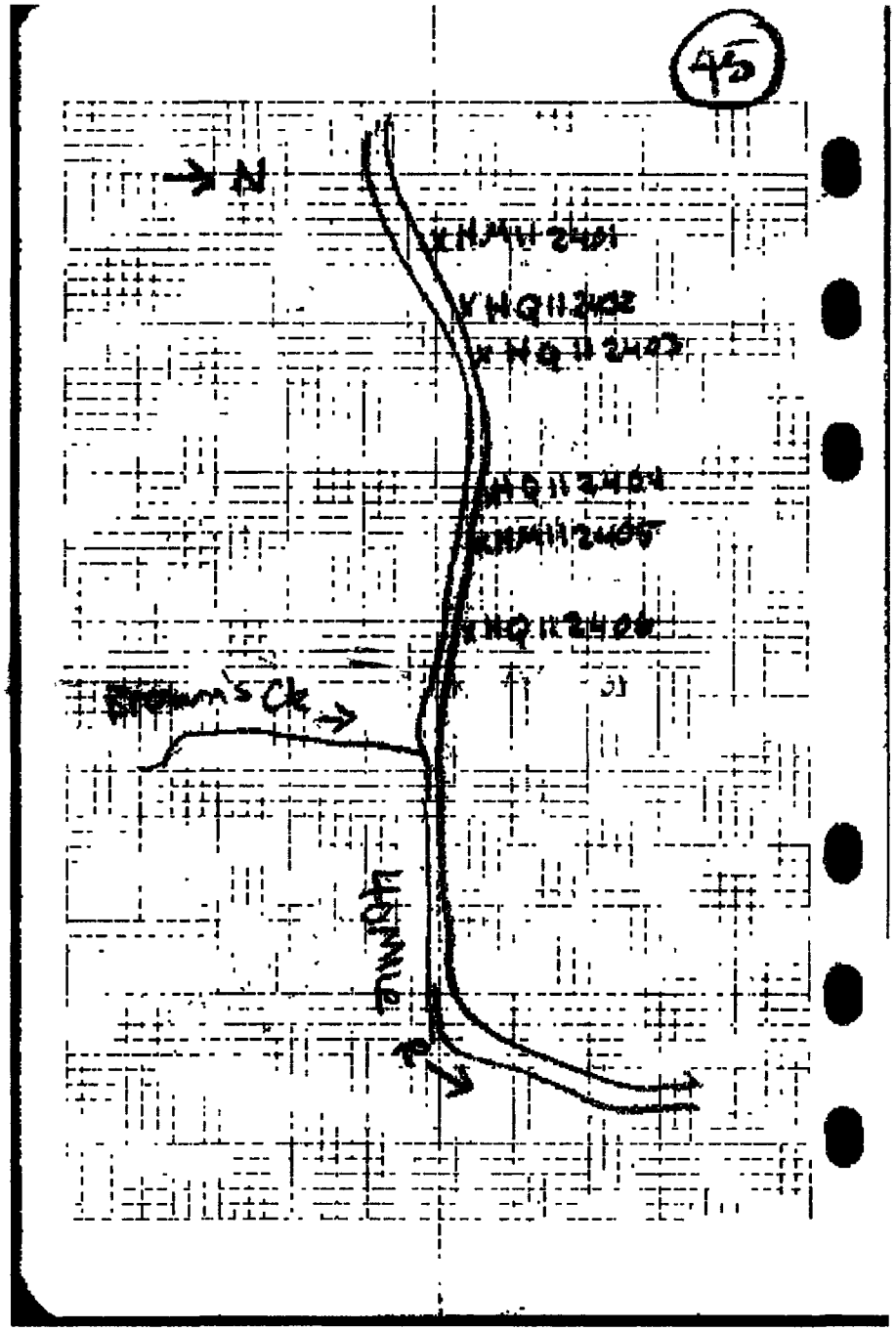
HQ112304 - large quartz intrusion (4m x 5m) in basalt cliff on RL ~1/2 way between Sparks & Bench



44

HQ112305 + 06
upstream ~ 20m from Q4 similar quartz seams the smaller - it would be very difficult to sample these cliffs in summer as access would not be possible - rain flows against cliffs

HQ112307 - soft decomposed quartz seam in basalt



11/24/99 -18°C clear

2 snowmachines up river to examine + sample cliffs/outcrops on the left limit of the gorge ~ upstream of Stream's Ck

HM112401
a mafic schist - sample from mineralized - decomposed seam w/ little quartz

HQ112402 50m downstream of 01 - small quartz seam in v. foliated schist

HQ112403 ~50m downstream of 02 from a large boulder which sheared off cliff along a .5m quartz seam which is rusty & decomposed

(47)

HQ 112404
secondary boulder source at base of cliff quartzite? ~ 200m downstream of 03

HQ 112405 seen in very foliated schist base of cliff ~150m downstream of 04

HQ 112406 series of quartz seams ~ 10cm thick in foliated schist

(48)

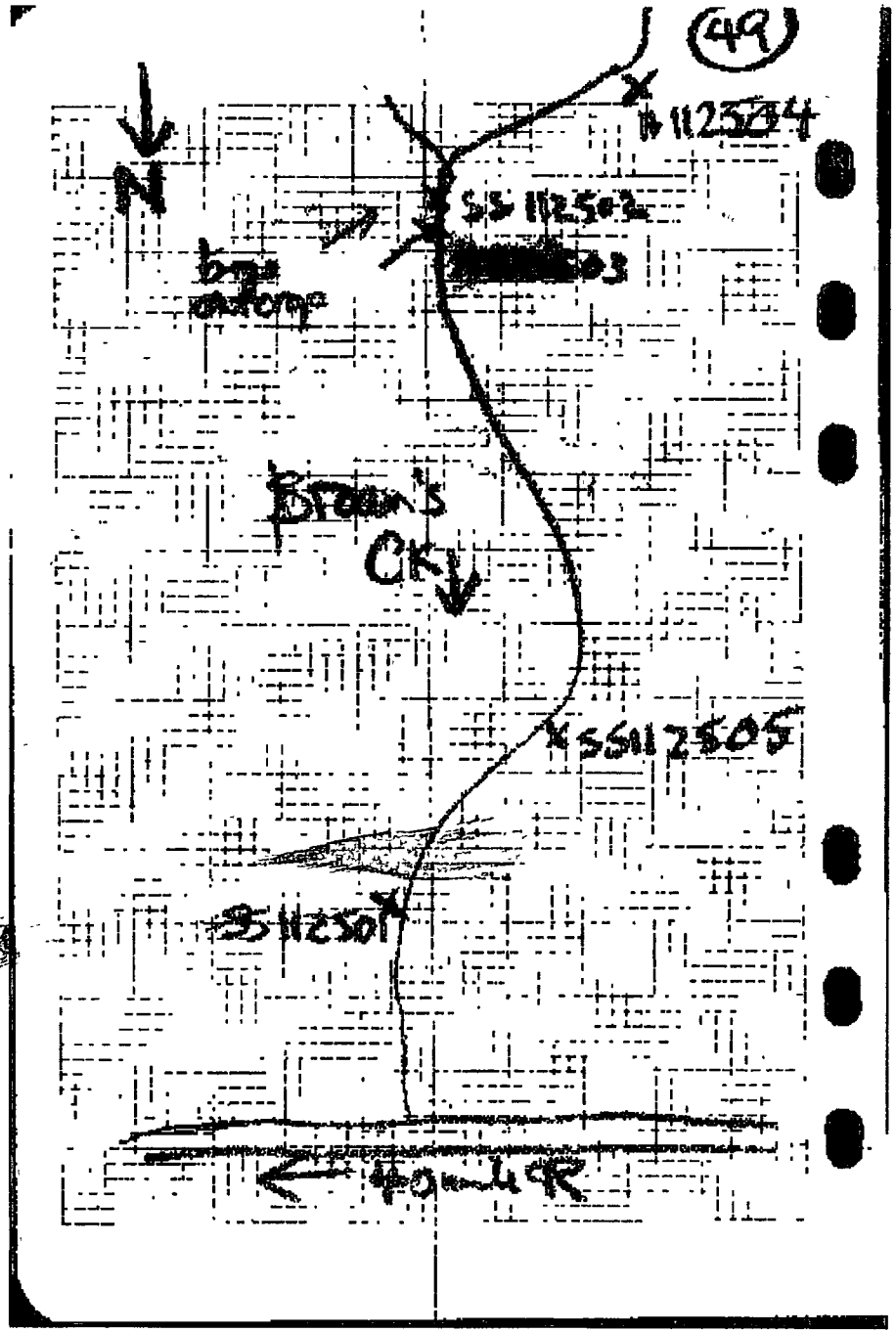
11/25/99 -18°C clear

2 snowmachines up to Brown's the creek is frozen (overflow frozen) so we were able to take snow machine right up the creek

SS 112501 - right limit sample taken from A zone - fine sand - about .2k up creek

SS 112502 } these samples
HH 112503 } taken from from out crop on right limit - Schist with layers almost vertical
Soil Sample taken from interesting rusty decomposed zone between layers - rock decomposed to clay - hand rock sample looks mineralized

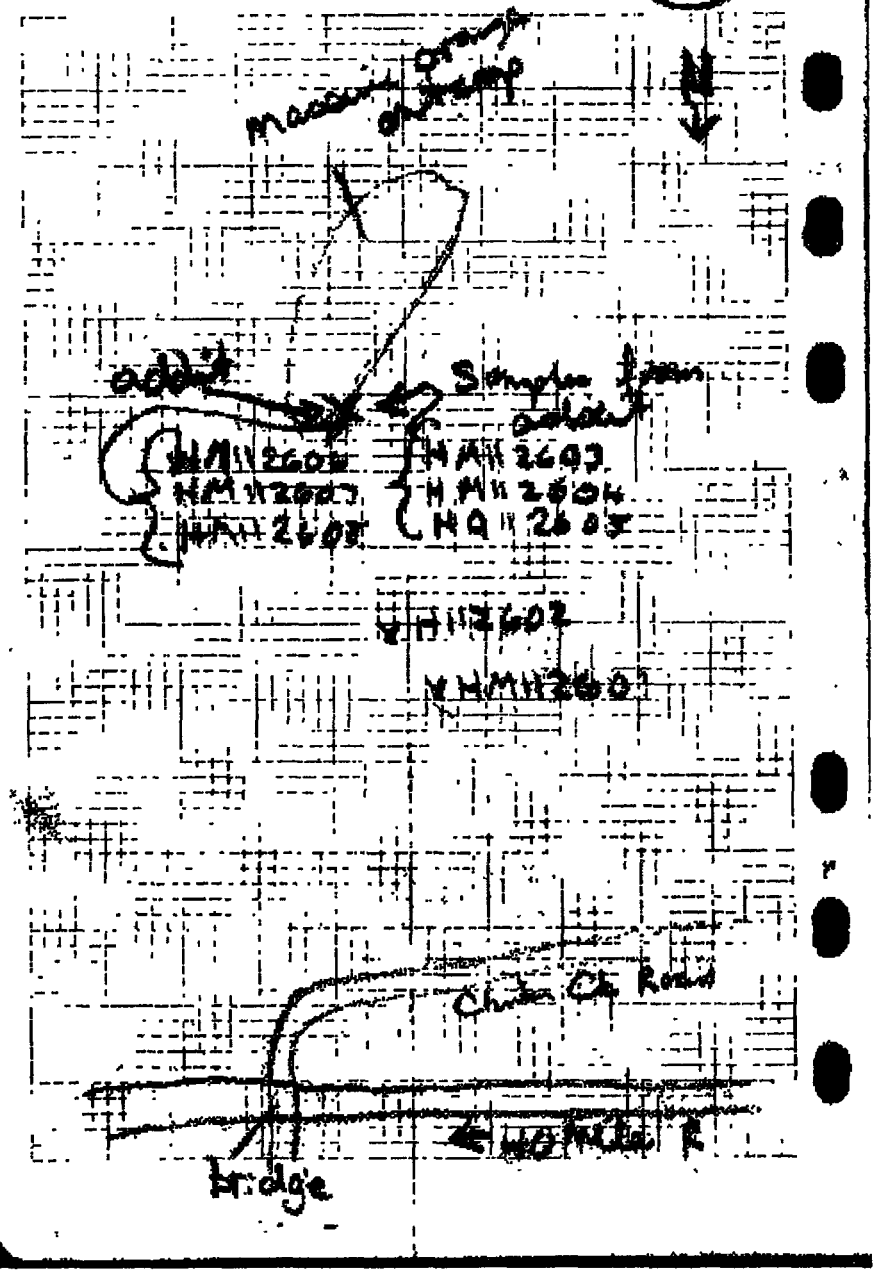
HQ 112504 - quartz sample taken from right limit



(50)

outcrop. Sample is from vein in a mica schist ~100 m upstream of 03

3S 112505 - left limit A zone sample from creek bank - fine clay not too far upstream from 01 sample



Nov 26/99 -21°C clear

2 snowmachines to Core Hill by road, back by river

HM 112601 sample from 3m ⌀ boulder broken off rocky spine of 50/50 loam/clay bright green - in colour - copper?

HM112602 upslope from 01 again veined green - serpentine?

Found Adit!!

HM 112603 - taken from inside end of adit - mafic schist

HM112604 - ultramafic from right side going into shaft ~ 10' in

HM112605 - quartz vein near mouth in south adit

(53)

HM 112606 – decomped rock w/ visible asbestos
East entrance to adit right side (approx 10' wide)

HM 112607
left side entrance to adit ultramafic – mineralized rock

audit pass off at 52'
w/ main tunnel ~ 10' floor to level ~ 6' high

HM 112608 pebble from floor of side tunnel

The location of the old adit seemed fairly obvious once we found it. There is no sign of a trail cut to it so I think it is quite old – though still in very good shape

north side of hill at base of major outcrop

(54)

Nov 28 −28°C partly cloudy

Cold today, so stayed in camp & started preparing samples to take out for assay. Samples prepared as follows:

- Soil samples: screened to 10 mesh, weighed out 300 gm of −10 mesh, balance retained

(some of the soil samples collected were too small to yield 300 gm after sieving)

packed to be sent for assay (all collected, retained portion labeled)

- hand rock samples: samples split to retain a portion – approx 300 gm bagged & labelled for assay – retained portion also labelled

55

Dec 1/99 -19°C partly cloudy, windy

I travelled alone by snowmachine to the rip-rap pit sampled east side of pit

SS120101 very decomposed seam east side pit

HQ120102 quartz vein with [illegible] to 0.1

HM120103 host rock [illegible]

HMQ120104 mineralized 1m seam vein - galena? sulfur?

Sample location shown on map from Oct 29

56

Dec 2/99 -20°C partly cloudy light snow

1 snowmachine over road back to rip-rap pit - lower level sampled today

HM120201 from boulder at base of hill dark green phenocrysts

HMQ120202 Quartz vein in large boulder large crystals (2-3 cm)

HM120203 rusty sometimes veining

HM120204 1st float with quartz veining quite [illegible]

Sample location shown on map from Oct 29

Dec 3

finished up splitting + labelling soil + rock samples - packed samples for shipping - 646 samples in all (plus + previous) retained portions of all samples labelled + stored along with some samples which were not chosen to be sent in for assay.

Dec 5

to town (Dawson) by Snowmachine over Top of World highway to bring samples in & send out for assay - good trip - last 8km - 10cm of snow + ice fog on top made visibility poor.