YUKON TERRITORIAL GOVERNMENT EXPLORATION INCENTIVES PROGRAM PROJECT 97 - 057

PLACER PROSPECTING on SMALL TRIBUTARIES of the UPPER FORTYMILE RIVER

November 6 - December 7, 1997

TRANSVERSE MERCATOR PROJECTION CO-ORDINATES latitude 64° 20' - longitude 140° 40' to 141° 00' PLACER CLAIM SHEET 116C-7

prepared by Leslie Chapman Box 460, Dawson City Yukon, Y0B-1G0 YEIP97-057 1997

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Project Location and Scope

My focus for this prospecting project was to examine the unstaked creeks and gulches on the upper portion of the Canadian section of the Fortymile River. This area is approximately 40 airmiles northwest of Dawson City. The location of the Fortymile mining district is shown on **Map 1**. I worked on tributaries within a 15 mile section of the Fortymile River, bounded by the Fortymile Canyon downstream and the Alaska border upstream. I prospected tributaries on both the right and left limits of the Fortymile River. In total, I looked at 8 tributaries. The latitude of the area in which I worked is approximately 64° 20' and the longitude is from 140° 40' to 141° 00'. The tributaries which I prospected are located on **Map 2**.

The creeks which I prospected are accessible by river. The Fortymile is navigable by river boat in the summer months, except at extremely low water. The creeks and gulches are easily accessible in the winter when the river is frozen.

Early mining records show that many of the Fortymile tributaries were active in the early days, prior to 1900. Some of the creeks have names dating from pre-Klondike gold rush times, while others are unnamed (for clarity and convenience I have given names to these unnamed tributaries). There is evidence of some very old mining work, primarily diversions, excavated in a few of the creeks. There are no records of how much, if any, gold was mined on any of these small tributaries on the upper Canadian Fortymile River. Records of royalties paid on gold obtained from the Fortymile district were destroyed by fire in the early 1900's, so little is known of production in the early days. On the Alaskan portion of the Fortymile there are several gulches which were mined very profitably, some producing nuggets of several ounces. For example, Nugget Gulch, located approximately 5 miles upstream of the border is reported to have produced thousands of ounces of coarse gold.

My objective for this project was to perform preliminary prospecting on all of the unstaked creeks and gulches on the upper Canadian section of the Fortymile River. I wanted to cover as much ground as possible to identify areas which might contain mineable gravel and be worthy of more indepth prospecting.

Geology

These tributaries are all steep, narrow, and swift flowing. The alluvial material in these gulches is generally poorly sorted, angular, young gravel which has been deposited in the valley bottom as a result of slides from the valley walls. Some of the tributaries contain rounded. washed gravel. Most of the ground in the gulches is frozen. In most places I estimate that it is less than 10 feet to bedrock. There is little muck overburden. Boulders of 1 foot to 4 feet in diameter are common in the



Sampling exposed gravel in a cut bank in Big Little Sit Down Creek. The washed boulder in the top left hand corner of the photograph is approximately 2 foot in diameter and is probably of river origin.

valley floors and creek beds. The bedrock valley walls are generally schist with occasional igneous intrusions.

Description of Work Program

I did my prospecting work in the late fall/early winter to take advantage of the frozen Fortymile River which made for easy travel using snowmachines. Working after freeze-up also allowed me to walk up the creek beds, and to collect samples from the channel, which is normally under water.

My assistant and I travelled on our snowmachines to the various tributaries from our camp at Marten Creek which is located approximately in the middle of the area which we prospected. We left the snowmachines at the creek mouths and walked up the creek valleys. We took gravel samples from exposed gravel in the creek beds and adjacent banks. Most of the samples which we collected were 6.5 to 7 lbs. In promising areas we took larger 20 lb. samples. We freighted the samples back to camp for processing.

The method which we used to analyze the samples is described as follows:

- the sample was weighed.
- material was screened through an 8 mesh Tyler screen.
- oversize material, rejected by the screening, was hand-panned and the resulting concentrate was examined for coarse gold presence.
- the fine material which passed through the screen was processed through a 4 lead spiral gold concentrating wheel to separate the heavy fraction.
- the concentrate was examined with a magnifying glass. Gold colours were counted and gold particles were examined for coarseness, wear, and shape.
- concentrate was saved in small zip lock bags for future reference.
- the screens, gold pans, and gold wheel were washed and rinsed with clean water between processing runs to avoid contamination of future samples.

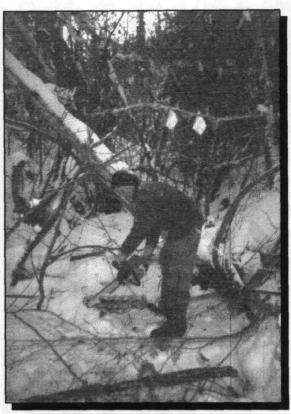
Creeks Investigated:

a) Big Little Sit Down Creek

BLSD Creek was informally named in 1977 during a prospecting program on the Fortymile River by the then property holder, German controlled Cogasa Resources. BLSD Creek is a tributary of the Fortymile River located approximately 8 miles below the Alaska border on the right limit. It is approximately 2 miles long with a major fork about 1/2 mile upstream from its confluence with the Fortymile River. The location of BLSD is shown on **Map 2**. This creek was of particular interest to me because it drains off the same dome as Herbert Creek, a known producer of coarse gold in the Fortymile district in the early days. There appears to be a man-made diversion in the creek. It looks like the creek was dammed and diverted against the left limit of the valley floor. This is probably pre-Klondike gold rush activity because it is quite overgrown now.

There are a few small benches along the creek. They are located approximately 20 feet above the elevation of the creek bed. These benches are frozen.

There are well rounded boulders in the creek, possibly of river origin. The gravel obtained in the creek had more quartz than most Fortymile gravel. There is a fair quantity of black sand in the concentrate in the samples obtained from the creek, indicating strong enough fluvial activity to concentrate heavy minerals in the valley bottom. There was some fine gold and a small flake in the samples from the section of the creek which was diverted.



Clearing brush for an access trail in the frozen channel of BLSD Creek. The creek channel here is approximately 15 feet wide.

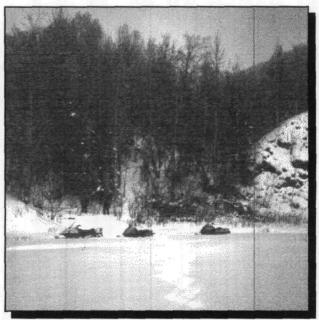
My prospecting work in BLSD Creek and

results of sampling there are noted in pages 2 - 10 of my diary in Appendix A.

b) Majan Creek

This creek is named in documents from the Yukon Archives in Whitehorse. A miner named Majan held claims here in the early 1900's. Majan Creek is located on the left limit of the Fortymile River immediately above the upper end of the Fortymile Canyon, and approximately one mile below Bruin Creek. The location of Majan Creek is shown on **Map 2**. The creek consists of a mainstem with two upper forks approximately 1 1/4 miles long.

Majan Creek was diverted by an early miner (Majan?). The diversion starts approximately 1000 feet up the creek from its confluence with the Fortymile River. The diversion has



This photograph shows the mouth of Majan Creek, located immediately above the Fortymile Canyon. We used snowmachines to travel on the frozen Fortymile River to the mouths of the creeks which we investigated.

eroded a deep channel on the right limit; the channel is from 12 to more than 15 feet deep. The two channels run parallel to each other about 40 feet apart. There is a muck layer of up to 6 feet overlaying the gravel exposed in the diversion channel on the right limit. There is a high bench on the right limit of the creek along the diversion area. This bench is approximately 25 feet above the level of the creek bed. This bench may be thawed because there are aspens growing on it. The gravel is sandy, fairly well sorted and at least 6 to 8 feet deep. There is exposed schist bedrock in the diversion channel. In the left limit channel, probably the original channel, there is no exposed bedrock or gravel. I obtained some fine colours from the gravel in the diversion channel.

Further up the creek, past the diversion, the creek narrows to a canyon. It was difficult to find exposed gravel above the diversion. The valley walls are moderately steep and the valley bottom is approximately 100' wide.

Refer to pages 11-19 of my prospecting diary in **Appendix A** for notes and results of sampling in Majan Creek.

c) Toad Gulch

This unnamed tributary is located on the left limit of the Fortymile River approximately ½ mile below Bruin Creek. See **Map 2** for the location of Toad Gulch. This gulch is very steep and less than 1 mile long.

There is little exposed gravel in the creek channel. Except near the mouth of the gulch, there is little exposed bedrock. There had been a lot of overflow in the creek channel when we were investigating the area. Samples obtained in the creek contained broken bedrock and slatey gravel; the samples had little black sand and the gravel was not washed. No gold was recovered from the samples from Toad Gulch. This creek doesn't appear to have enough water flowing in it to sort and concentrate heavy minerals.

Pages 20 - 23 of my diary in Appendix A refer to work in Toad Gulch.

d) Montgomery Creek

Montgomery Creek has retained its historic name on the current NTS map. It was named after a miner who held claims in the creek in the early days. Montgomery Creek is located on the right limit of the Fortymile River, approximately 1 mile downstream from the Alaska border. **Map 2** show the location of Montgomery Creek. It is approximately 3 miles long and consists of a mainstem with two forks at its head waters.



We took samples of exposed gravel from cut banks and from the creek beds. Here we are sampling from the mining cut excavated by old-time hand miners downstream of the diversion in Montgomery Creek.

We found evidence of a diversion and old hydraulic workings near the confluence of the creek with the Fortymile River. Further up the creek just below a canyon, there is evidence of another old time hydraulic mining operation. There is an old cut at right angles to the creek bed immediately downstream of the creek diversion. Gravel obtained from the area of the old cut is sandy and fairly well washed. We recovered a flake piece and 2 medium sized colours from the area of the old cut. No colours were recovered from elsewhere in the creek.

Further upstream, the creek narrows to a willow choked canyon with little exposed gravel or bedrock. There are some large birch trees up this creek indicating the valley floor is thawed in this area.

Montgomery Creek and the results of my sampling there are discussed in pages 24 - 29 of my diary in Appendix A.

e) Ruby Creek

Ruby Creek, although unnamed on the current maps, was called Ruby Creek in the mining recorders records from the early 1900's. This creek is located on the right limit of the Fortymile River approximately 2½ miles downstream from the Alaska border. Ruby Creek is located on Map 2.

It is a narrow creek, approximately 15 feet wide. There is washed gravel in the creek and rounded boulders of 1 foot diameter and greater. Further up the creek the gravel is more angular, possibly the washed gravel in the lower reaches is of river origin. The creek channel narrows and is choked with willows in the upper reaches. On the right limit near the mouth there is a bench of approximately 200 feet by 150 feet. Samples from Ruby Creek contained little black sand. One fine colour was recovered, although bedrock was not sampled.

My notes on Ruby Creek can be found on pages 30 - 33 of my prospecting diary in **Appendix A**.

f) Titanium Creek

This unnamed right limit tributary of the Fortymile drains from the divide between Brown's Creek and Moose Creek, both of which are known gold producers. The confluence of Titanium Creek and the Fortymile River is located approximately 3½ miles below the Alaska border. The location of Titanium Creek is shown on Map 2.

This creek rises steeply from its mouth with little exposed gravel in the steep sided gulch. About 500' up the creek, after a steep rise, the creek levels out into a wide shallow bowl which extends up to the forks. This area appears to be mineable if it contains sufficient auriferous gravel under the overburden. It was not possible to do extensive sampling in this creek because it didn't contain much exposed gravel or bedrock. The gravel which we did collect was dark in colour, and we recovered 1 colour. There was a good quantity of black sand in the concentrate, indicating the presence of heavy alluvial minerals.

See **Appendix A**, my prospecting diary, pages 34 - 36 for notes on my prospecting work in Titanium Creek, and page 43 for the results of sampling.

g) Lynx Gulch

This unnamed tributary on the left limit of the Fortymile River is located about 3 miles downstream from the Alaska border. The location of Lynx Gulch is shown on **Map 2**. It is approximately 3/4 mile long.

Lynx Gulch has a very steep channel. There is extensive exposed bedrock in the channel, but there is little or no washed gravel. The samples which we obtained from this creek were of angular unwashed gravel and broken bedrock, they did not contain any gold. There are quartz stringers in the bedrock, a sign of possible mineralization. There appears to be little sorting action having taken place in this gorge-like valley. I did not see any evidence of past work.

Notes on my prospecting in Lynx Gulch are on pages 37 - 39, and sampling results on page 44, of my diary in **Appendix A**.

h) Papagayo Gulch

Like Lynx Gulch, Papagayo Gulch is an unnamed, steep gulch on the left limit of the Fortymile River approximately 4 miles downstream of the Alaska border. **Map 2** shows the location of Papagayo Gulch. It is approximately 1 mile long.

Unlike Lynx Gulch, however, Papagayo Gulch contains much exposed gravel. This gravel is angular and unsorted. There is no bench ground in this valley. There is large timber in the valley and there was heavy overflow in the channel while we were there. Samples contained fine angular gravel with no gold present.

My prospecting notes on Papagayo Creek are on page 40 - 42 of my diary in **Appendix A**, and sampling results are on page 44.



The mouth of Papagayo Gulch. The exposed bedrock rim of the Fortymile River can be seen in the left of the photograph. This creek valley is very narrow, approximately the width of the snowmachine and sled in the foreground. There did not appear to be enough drainage to allow any placer deposition in this gulch.

Results and Conclusions

I examined 4 left limit tributaries and 4 right limit tributaries along the Fortymile River. Of the left limit tributaries, 3 of them, Toad Gulch, Lynx Gulch and Papagayo Gulch, are very steep short gulches containing little or no washed gravel. I did not recover any gold from my sampling in these gulches, although I didn't obtain samples from bedrock.

The fourth left limit tributary which I examined, Majan Creek, was more promising. There is a good gravel deposit in the area adjacent to the old diversion channel, although overburden is up to 6 feet deep in this area. Much of the valley appears thawed which would make mining considerably less expensive. I obtained several fine colours from the samples in this area and the samples contained a lot of black sand. I believe that Majan Creek has potential for placer mining and recommend that it be further investigated.

The right limit tributaries which I investigated are, on average, less steep, wider, and longer than the left limit tributaries. Both BLSD Creek and Montgomery Creek show evidence of previous hand mining work. I recovered fine gold from the samples taken in the area of the diversion in both of these two creeks. Both of them show potential for mining.

While neither Ruby Creek nor Titanium Creek show evidence of previous mining, they both appear to have some minable ground in them. Titanium Creek widens out into a wide, shallow bowl which extends approximately ½ mile up to the forks. This area looks suitable for mining and a drilling or trenching program would be useful in evaluating the quantity and grade of the gravel.

Majan Creek, BLSD Creek, Ruby Creek, Titanium Creek and Montgomery Creek are all worthy of further prospecting work.

Road access to Majan Creek could be developed from the Fortymile Placers Road down through the head waters of Majan Creek. Road access to the right limit tributaries could be developed from the Brown's Creek or Moose Creek Roads, both of which are spurs of the Top of The World Highway.

It should be noted that many of the gulches on the Alaska side of the border immediately upstream of the border have produced coarse gold in economic quantities; among these creeks are Franklin Gulch, Nugget Gulch, and numerous gulches in Canyon Creek. Prospecting to bedrock depth is required to affirm the viability of mining the creeks which I investigated.

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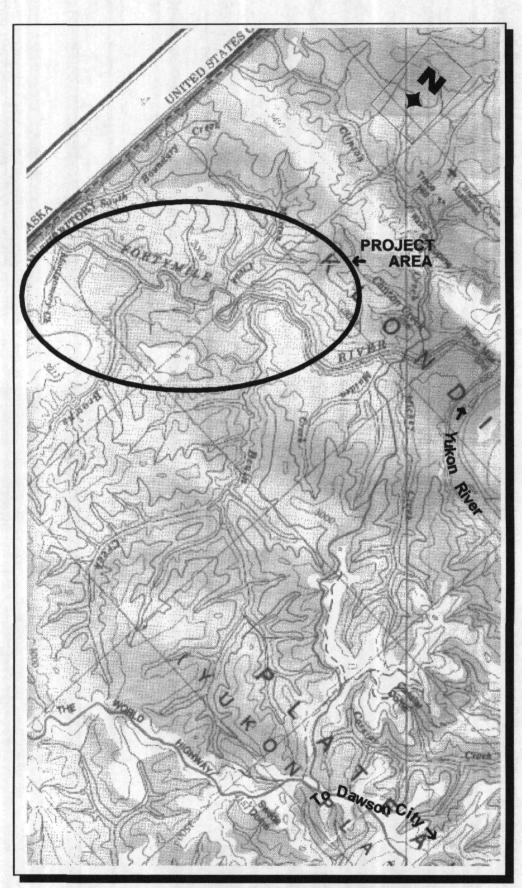
Table 1RESULTS OF SAMPLES

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Sample Name	Weight (lbs)	No. of Colours	Comments
BLSD 1	7	0	little black sand
BLSD 2	7	0	more black sand than BLSD 1
BLSD 3	6.5	0	
BLSD 4	7	0	
BLSD 5	6.5	0	black sand
BLSD 6	7	0	some black sand
BLSD 7	20	2	fine colours, some small garnets, black sand
BLSD 8	7	1	small flake
BLSD 9	7	0	more quartz in BLSD gravel than normally in Fortymile River gravel
Majan 1	7	0	
Majan 2	7	0	sandy gravel, washed gravel
Majan 3	7	0	river gravel?
Majan 4	6.5	0	slatey gravel
Majan 5	20	3	2 colours are very fine
Majan 6	7	1	fine colour, lots of black sand
Majan 7	7	0	sandy
Majan 8	7	0	angular gravel
Majan 9	7	0	
Majan 10	7	0	
Toad 1	7	0	
Toad 2	7	0	
Toad 3	7	0	little black sand in these samples, not washed gravel

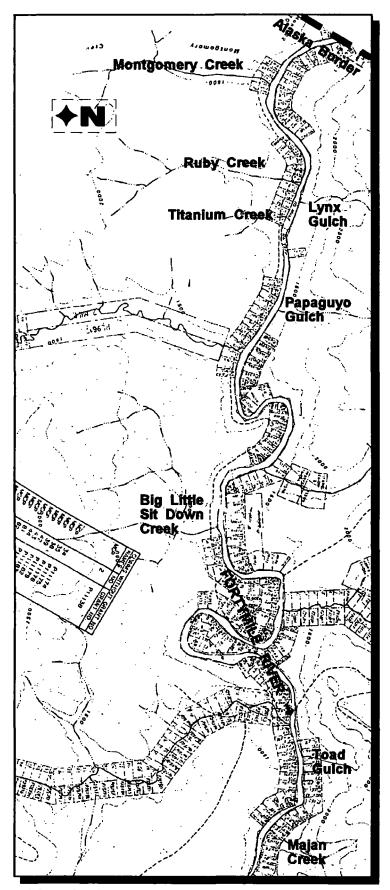
Table 1 continued RESULTS FROM SAMPLES

Sample Name	Weight (lbs)	No. of Colours	Comments
Montgomery 1	7	0	
Montgomery 2	7	0	
Montgomery 3	7	0	
Montgomery 4	7	1	flakey piece of gold, lots black sand
Montgomery 5	20	2	medium sized colours, black sand
Montgomery 6	6	0	lots of black sand, garnets
Montgomery 7	7	0	
Montgomery 8	6.5	0	
Ruby 1	7	0	
Ruby 2	7	1	fine colour
Ruby 3	20	0	
Ruby 4	6	0	
Ruby 5	7	0	little black sand
Titanium 1	7	1	medium sized colour, lots black sand
Titanium 2	7	0	
Titanium 3	7	0	lots of black sand
Lynx 1	7	0	
Lynx 2	7	0	
Lynx 3	7	0	little concentrate
Lynx 4	7	0	
PG 1	7	0	
PG 2	7	0	
PG 3	7	0	
PG 4	7	0.	
PG 5	7	0	



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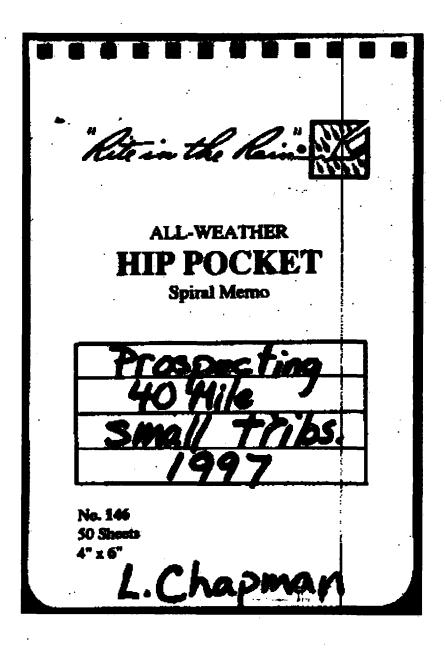
Map 1 - Fortymile Mining District scale: 1 inch = 4 miles



Map 2 - Location of Creeks Prospected scale: 1 inches = 1/2 mile

APPENDIX A

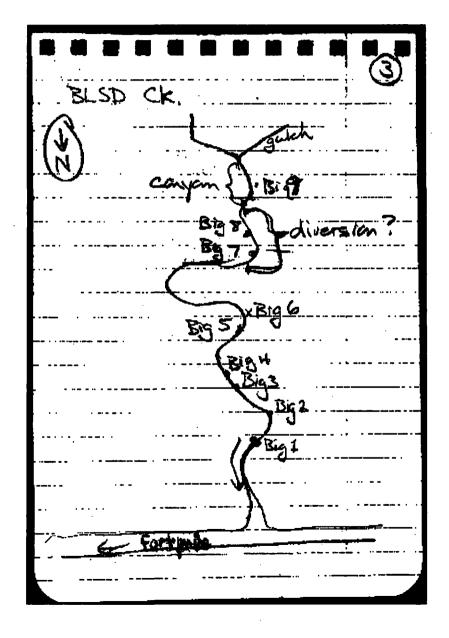
Prospecting Diary



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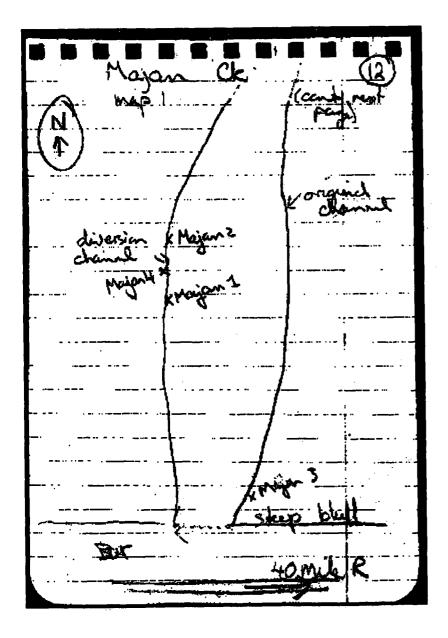
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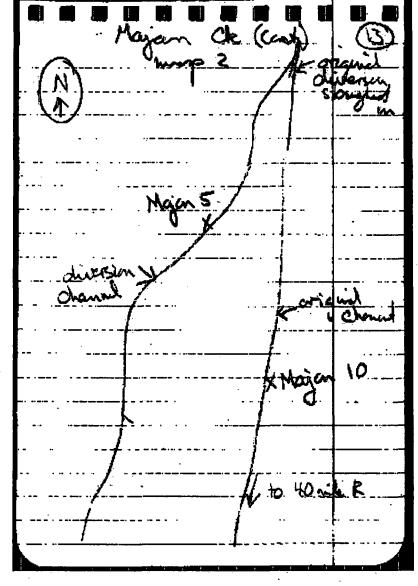
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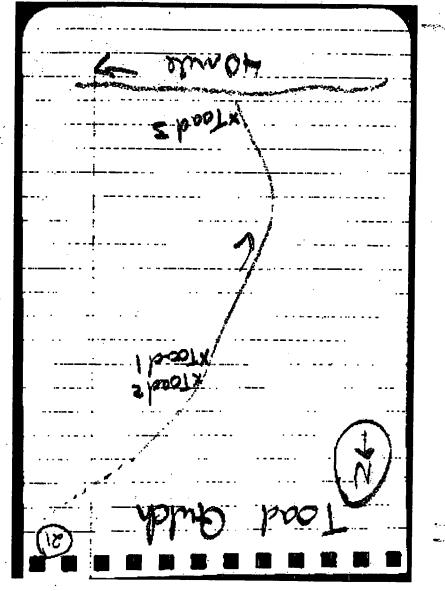
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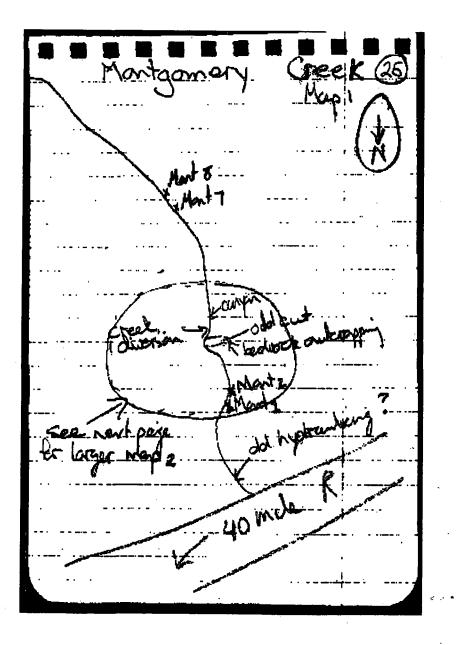
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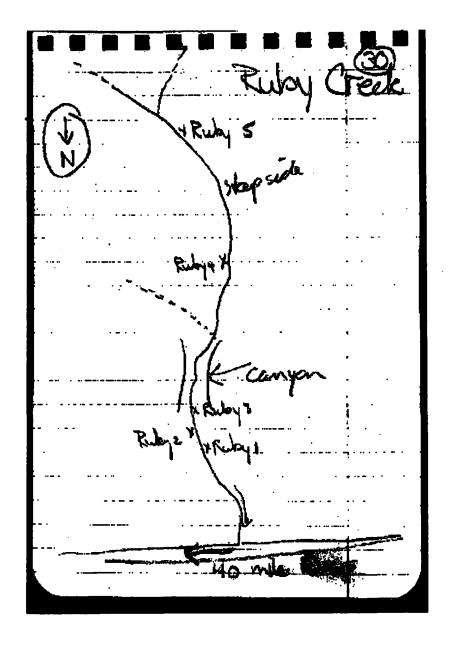
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