

GEOCHEMICAL SURVEY
KIWI LAKE AREA

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91-048

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1 0 INTRODUCTION

During 1990 the G.S.C. published the Regional Stream Sediment results for parts of the 106E Wind River Region. An area of anomalous arsenic results appeared concentrated around the Kiwi Lake area. This required closer scrutiny.

The writer planned a one month exploration program with the objective of reproducing some of the G.S.C. results and hopefully discover a source for these anomalies.

This report outlines the investigation undertaken, the procedure and the results.

2 0 LOCATION

Kiwi Lake is located 170 km north of Mayo between the Wind River and Bonnet Plume River. The lake is nestled between mountains to the South, East and West and open muskeg to the North. The lake is small; 3km in length and 500m in width

3.0 PREVIOUS WORK

A number of companies have explored in the area mainly for coal and uranium, with the odd claim for copper and base metals. Reports on these activities by Eldorado Nuclear, Cyprus Anvil and Pan Ocean are on file at the G.S.C.

4.0 WORK UNDERTAKEN

A reconnaissance program was performed from July 22nd to August 22nd 1991. Creeks, Rivers, and Mountains in the KIW1 Lake area were traversed and sampled.

4.1 PROCEDURES

4.1.0 STREAM SEDIMENTS

A quantity of approximately 500gms of -40# material is accumulated from active river sediment. The materials should be a combination of material collected from 8-10 locations in the sample area to ensure a representative sample of all rock types present in the system. Care must be taken to avoid trap sites that may contain free gold.

Logging of the sample includes drainage parameters such as stream width and gradient.

The sample is dried, sieved to -80#; split, fire assay 50gms-----AAS (Au Ag Cu Pb Zn).

4.1.1 PAN CONCENTRATE

A quantity of concentrate between 20 - 50 grams is collected from trap sites in the creek. The concentrate is panned down from 6 liters of -2mm material taken from the best available trap site.

Record of the sample, includes a qualitative estimate of trap site rating (poor to excellent)

The sample is dried and the entire sample fire assayed ---
----AAS (Au, Ag)

41.2 ROCK CHIP

Approximately 2kg of rock chip, collected in a manner to give a representative assay of the rock type

Assay : dried, crushed, split 50gm fire assay -----
-AAS (Au Ag Cu Pb Zn As)

5 0 RESULTS (ROCK CHIPS)

	PPM Au	ppm Ag	ppm Cu	ppm Pb	ppm Zn	ppm As
R 001	0 025	<0 1	97	13	178	113
R 002	0 040	0 1	116	<1	55	31
R 003	0 029	0 2	100	9	101	40
R 004	0 039	0 3	9	3	44	29
R 005	0 026	0 1	3	2	28	68
R 006	0 031	<0 1	72	13	112	123
R 007	0 033	<0 1	3	<1	37	118
R 008	0.039	<0 1	2	<1	24	103
R 009	0 025	0 1	5	<1	124	85
R 010	0.048	<0 1	1640	<1	14	129
R 011	0 045	<0 1	23	1	25	34
R 012	0 093	<0 1	7	1	10	81
R 013	0 019	<0 1	97	1	62	139
R 014	0 322	40 0	>10000	7	87	1630

R 015	0.183	35	>10000	4	20	1150
R 016	0.164	12.9	>10 000	29	106	>5000
R 017	0.033	0.4	945	35	38	284
R 018	0.027	0.3	1985	6	12	213
R 019	0.015	<0.1	196	<1	14	82
R 020	0.015	<0.1	85	5	22	35
R 021	0.033	<0.1	117	2	51	140
R 022	0.048	<0.1	1850	3	12	338

5.1 STREAM SEDIMENTS

SS 001	0.013	<0.1	88	137	931	161
SS 002	0.012	<0.1	80	35	138	248
SS 003	0.018	<0.1	187	24	122	308
SS 004	0.361	<0.1	129	49	163	277
SS 005	0.038	<0.1	120	64	174	211
SS 006	0.011	<0.1	73	80	275	152
SS 007	0.030	<0.1	3850	12	52	1020

5.2 PAN CONCENTRATES

	Au	Ag
P.C. 001	0.030	0.1
PC. 002	0.053	<0.1
PC. 003	0.008	<0.1
PC. 004	0.143	<0.1
PC. 005	0.021	<0.1
PC. 006	0.023	<0.1
PC. 007	0.023	<0.1

6.0 CONCLUSIONS

Field work duplicated most of the G.S.C. Geochemical work with results of similar value. No major mineralized outcrops were discovered.

Due East of Kiwi Lake (approximately three kilometers) there are considerable boulders of hematite in a smaller creek. The outcrop of origin of these boulders was not found.

High anomalous values of copper in one creek are associated with a narrow (0.5m) exposure occurring between sediments. It is narrow and dips east at a very low angle. Because of the overburden cover and width it was not considered for staking.

7.0 RECOMMENDATIONS

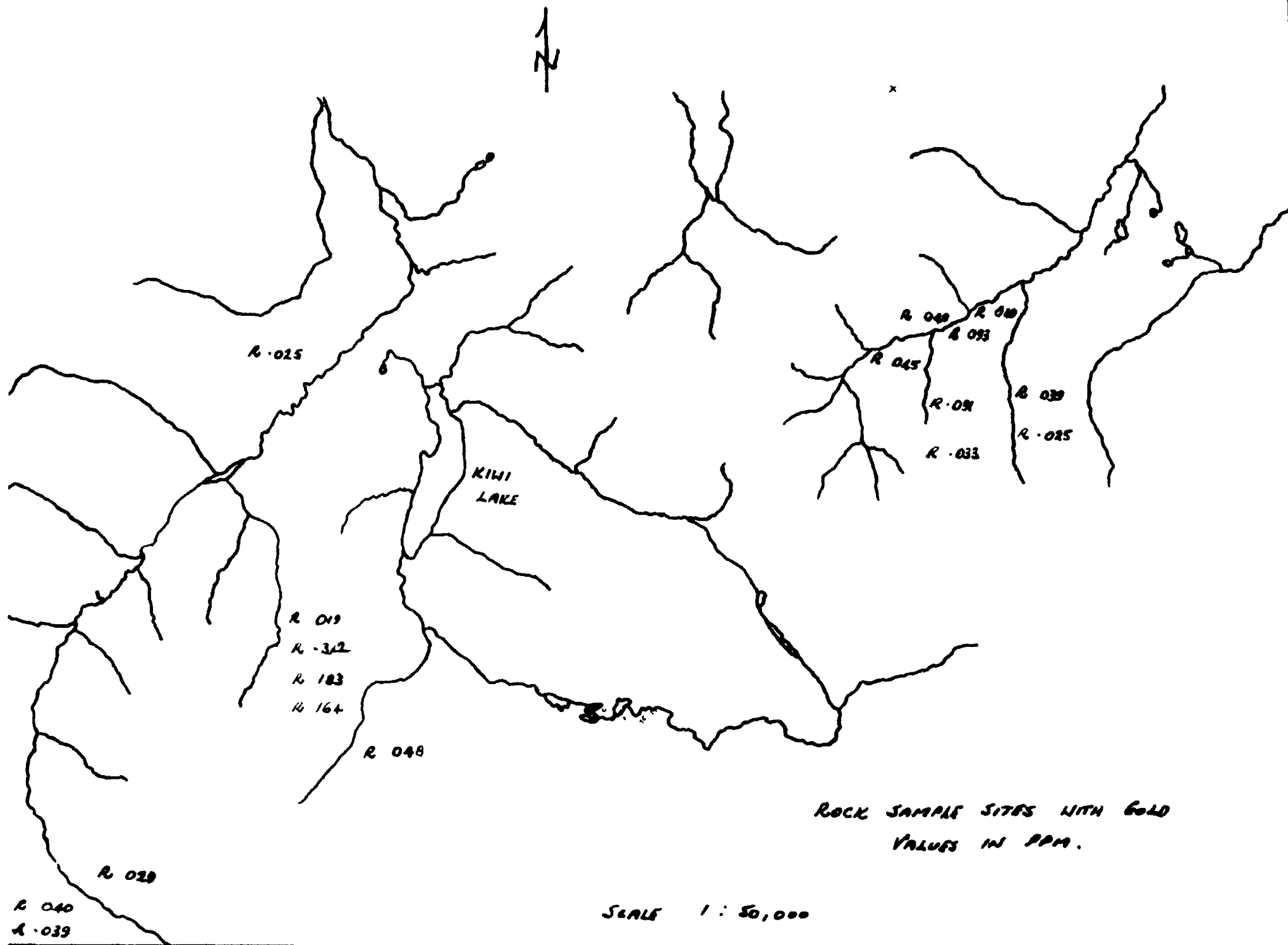
The hematite boulders warrant some additional investigation to find their origin and determine their extent.

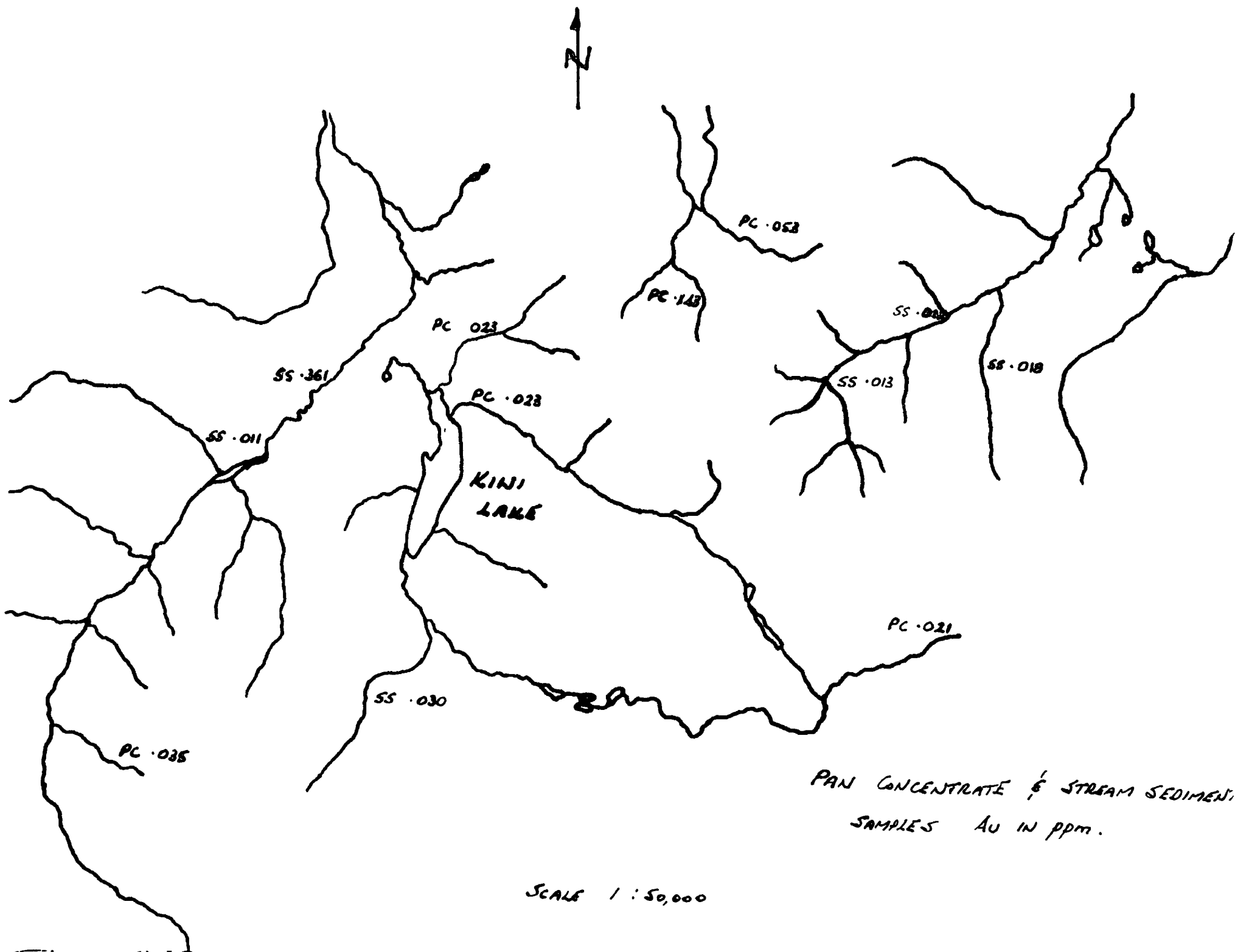
In the immediate area of Kiwi Lake the gold and silver values are essentially background. There is potential regionally which should be followed up

8.0 EXPENDITURE

Transport, Field, Expenses, Assays reports

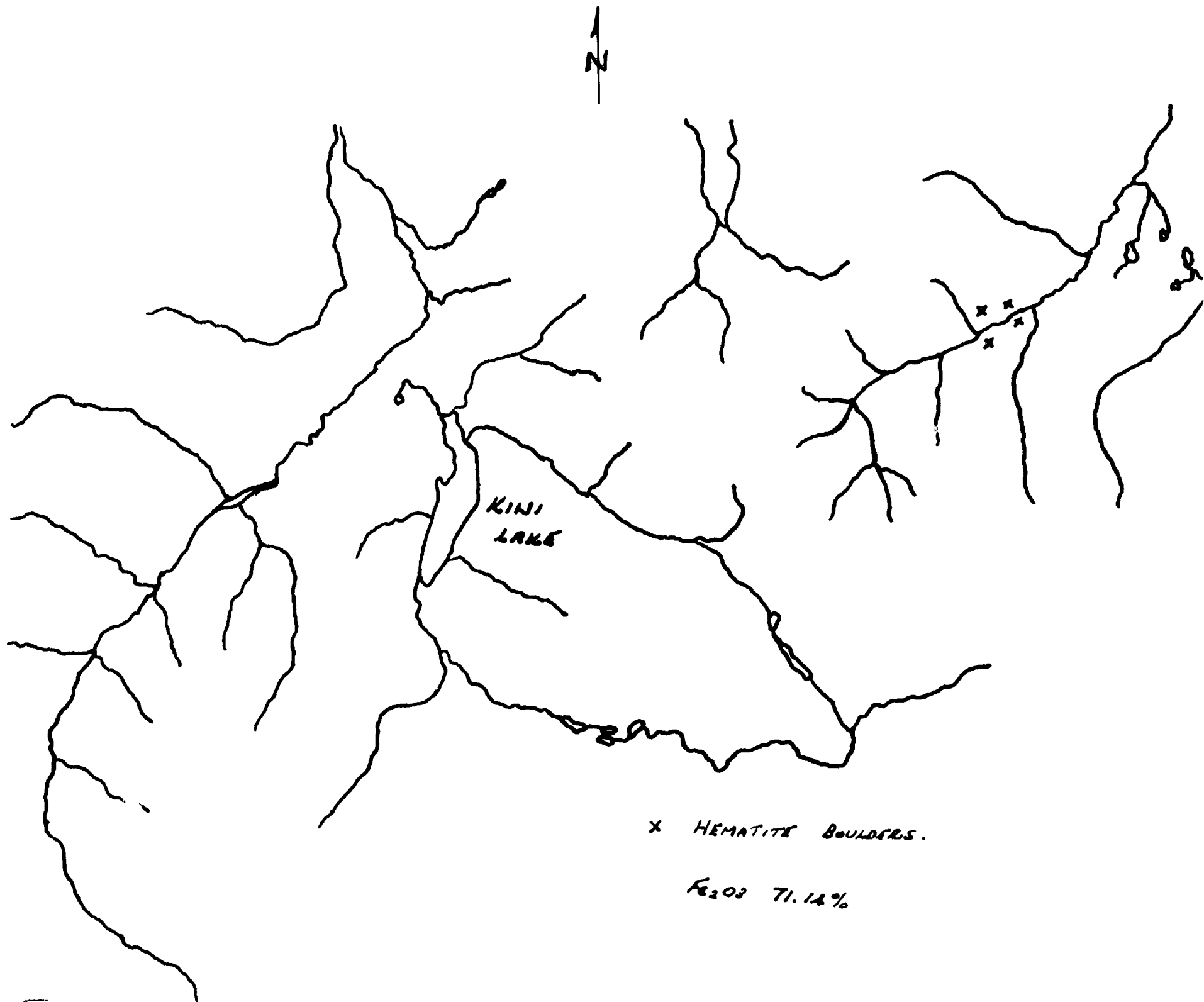
Advance	\$ 2500
Claim 1.	\$ 2881.07
Claim 2.	\$ 75489
Claim 3.	<u>\$ 200.00</u>
total	\$ 6335 96





PAN CONCENTRATE & STREAM SEDIMENT
SAMPLES Au IN ppm.

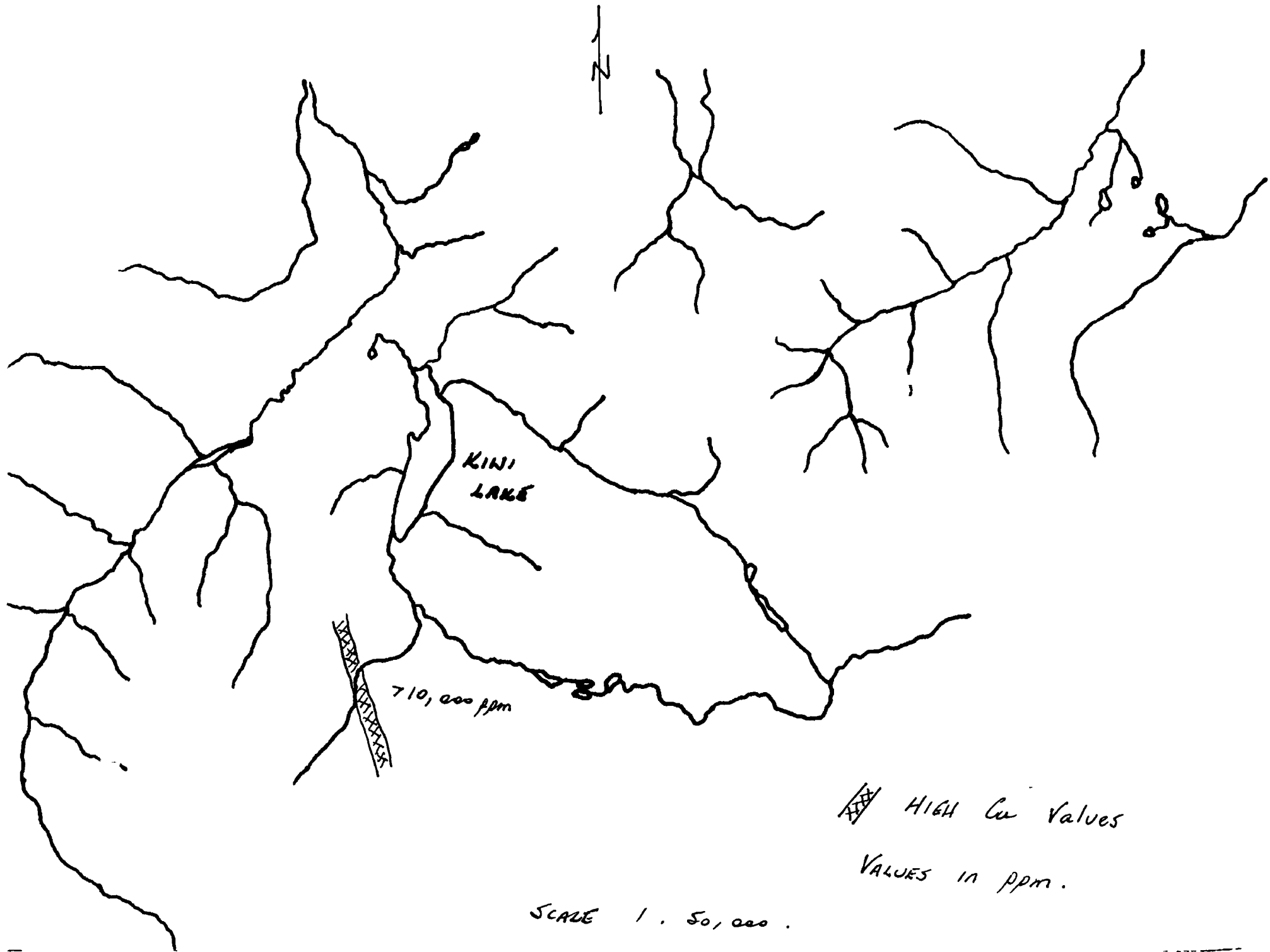
SCALE 1 : 50,000




KINI
LAKE

x HEMATITE BOULDERS.

Fe₂O₃ 71.12%



 HIGH Cu Values
VALUES IN PPM.

SCALE 1 : 50,000 .

JULY 22nd 1991.

WEATHER

FINE

- ARRIVED KINI LAKE 9.00. 2HRS FLT FROM MAYO.
- SET UP CAMP.
- CHECKED OUT SMALL DRY CK NN OF LAKE - FLOAT LOOKS PROMISING QZ & SOME MINERALIZATION.

JULY 23rd.

FINE

- TRAVERSED CK WEST OF CAMP.
- CHECKED OUTCROP AT TOP OF HILL QZITE & SCHIST
- TRAVERSED CK TO WEST TO TOP OF MOUNTAIN
LARGE QZ BOULDERS IN CK BUT NOT OUTCROPPING

JULY 24TH

FIN

- TRAVERSED LAKE TO NORTH & LOWER END OF CK TO NN.
- HILLS SURROUNDING CK MAINLY ARGILLITE OR GREY TO BLACK SOME QZITE WITH MINOR MINERALIZATION.

JULY 25TH

OVERCAST

DRIZZLE

- TRAVERSED CK WEST OF KINI LAKE TO HEADWATERS.
- CK VARIES IN WIDTH FROM A FEW METRES TO 100M
- MANY PARTS OF CK ARE DRY.
- WIDTH OF CK AT HEAD IS 1M.
- FLOAT IN CK CONSISTS OF QZ BOULDER TO PEBBLE
- LIMESTONE SEAMS?, ARGILLITE.
- BOTH BANKS CONSIST OF ARGILLITE EXTREMELY FAULTED RANGES FROM OR GREY TO BROWN IN COLOUR.
- CAMPED AT HEADWATERS.

JULY 26.

- KEPT FOLLOWING CK TO SOUTH WEST, THEN SOUTH
- CK FLOAT OF GREEN QTZITE WITH QTZ STRINGERS
- OUTCROP ON WEST HILL STRIKING NORTH; FOLLOWED TO TOP OF HILL AND SAMPLED - EXTENDS SOUTH
- QTZITE IS // TO SLATE.
- CAMPED ON CK NEAR EXPOSURE.
- FOLLOWED CK TO HEADWATERS.

OVERCAST
CLOUDY
ALL DAY
DRIZZLE.

JULY 27.

- TOOK PAN CONCENTRATE ON CREEK.
- CLIMBED TO TOP OF MOUNTAIN AND HEADED BACK TO KINI LAKE
- TOOK NINE HOURS HIKING.
- HEAVY RAIN AT 1.30.
- QTZITE AND ARGILLITE ALTERNATE - TOP OF MOUNTAIN
ARGILLITE - CREAM QTZITE - ARGILLITE - CREAM QTZITE -
ARGILLITE - CREAM QTZITE - ARGILLITE.

JULY 28th.

- REPAIRED GEAR CHECKED AROUND LAKE AND CK TO NORTH & NORTHWEST.
- TOO RAINY FOR FIELD WORK.

RAIN &
DRIZZLE.

JULY 29th.

- REPAIRED CAMP FINE IN MORNING - RAIN & DRIZZLE IN AFTERNOON.
- TOO RAINY FOR FIELD WORK NO VISIBILITY.
- WORKED ON PHOTO INTERPRETATION.

RAIN
ALL DAY

JULY 30TH.

OVERCAST
WINDY
WITH
DRIZZLE.

- TRAVERSED NORTH OF KINI LAKE LOOKING FOR A PATH THROUGH TO THE BONNET PLUME.
- CHECKED EXPOSURES ON NW SIDE OF LAKE
- TRAVERSED SOUTH TO CHECK ON ACCESS TO SOUTH WEST
- CKS ONLY SHOWING BLACK SHALES (SLATE) AND QUARTZ BLOBS.

JULY 31ST.

RAIN &
WIND ALL
DAY

- TRAVERSED ~~WEST~~^{EAST} THROUGH VALLEY TO CREEK FLOWING ~~WEST~~^{EAST} INTO THE BONNET PLUME.
- FOLLOWED CREEK FOR ABOUT 3 KILOMETERS AND FOUND SOME LARGE MINERALIZED FLOAT - MAINLY HEMATITE
- WHERE IT IS COMING FROM I DO NOT KNOW AS YET
- TOOK SOME SAMPLES
- CAMPED ON SIDE OF CK.

AUGUST 1ST.

WINDY
OVERCAST.

- FOLLOWED WHAT I CALL NO 2 CK TO TOP OF MOUNTAIN LOOKING FOR SOURCE OF MAGNETITE. (SW)
- DISCOVERED A LITTLE FLOAT IN CK BUT ONLY SMALL PIECES.
- CK CUTS ACROSS QUAZITE AND BLACK SHALES BUT NO SIGN OF ANY OTHER STRUCTURES.

AUGUST 2nd.

CLOUDY &
WINDY.

- TRAVERSED CK No. 2 AGAIN AND TOOK A PAN CONCENTRATE
- WORKED MY WAY WEST SAMPLING MAIN CK AND THE SMALL TRIBUTARIES.
- NO SIGN OF HEMATITE OUTCROPPING ALTHOUGH I THINK IT MUST SHOW UP IN A CREEK OR CUT AT SOME PLACE. OTHERWISE THE SOURCE IS PROBABLY COVERED BY SCREE OFF THE MOUNTAINS.
- CAMPED AT TOP OF MAIN CK. CARIBOO GRAZING AREA AS THERE WERE FIVE YOUNG CARIBOO THERE.

AUGUST 3RD.

WINDY
WITH
DRIZZLE.

- FOLLOWED HILL RIDGE NN BACK TO KINI LAKE.
- OUTCROP IS ALTERNATING QTZITE BLACK SHALES ALTHOUGH I STILL CAN'T WORK OUT ANY LOGICAL SEQUENCE.
- LOOKED FOR MINERALIZATION AND INTRUSIVES BUT NO LUCK ON EITHER COUNT.

AUGUST 4TH.

OVERCAST
WINDY.

- TRAVERSED FROM KINI LAKE TO TOP OF HIGHEST MOUNTAIN SOUTH EAST OF LAKE.
- TOP OF MOUNTAIN ARE WEATHERED QTZITE.
- TOOK A PAN CON AT HEADWATERS OF CK.
- HALF WAY DOWN CK FULL OF LARGE BLOCKY QTZ.
- QTZ COMES FROM A LAYER WITHIN THE MUDSTONE (BLACK SHALE SLATE)
- IT APPEARS TO BE EXPOSED IN THE CREEK PARTICULARLY ON THE NORTH BANK. IT IS BADLY FOLDED.
- THE QTZ IS // TO THE BLACK SHALE BEDDING.
- CAMPED NEAR BLECCIA PIPE

AUGUST 5TH.

MORNING
WINDY &
OVERCAST
AFT. FINE

- TREKKED BACK TO CK WITH HEMATITE LOOKING AROUND FOR SOURCE.
- CLIMBED TO TOP OF MOUNTAIN ON NORTH SIDE OF RIVER UP THROUGH BLACK SHALES AND INTO QTZITE WHICH IS EXPOSED AT TOP. ALSO PROTRUDING IN MOUNTAINS TO THE EAST & NORTH EAST.
- CAMPED AT CK.

AUGUST 6TH.

WINDY
OVER-
CAST
WITH DRIZZLE

- FOLLOWED MOUNTAIN AROUND TO SADDLE NORTH OF QTZITE EXPOSURE
- TRAVERSED CK FLOWING NORTH, THROUGH A MOUNTAIN PASTURE. SAW TWO CARIBOO.
- FOUND SOME VOLCANIC? FLOAT IN CREEK WHICH I HOPE TO FOLLOW UP FOR A SOURCE.
- FOLLOWED MOUNTAINS TO NORTH AND AROUND BACK TO KINI LAKE.
- HEAVY RAIN AFTERNOON.

AUGUST 7TH.

RAIN IN
MORNING
WINDY
O.C
IN
AFTERNOON

- JOURNEYED TO CK RUNNING EAST TO TRACK DOWN SOURCE OF HEMATITE MINERALIZATION.
- CK IS FULL OF FLOAT FROM LARGE BOULDERS TO PEBBLES. PANNED MAIN CK AND NO 2 & 3. HEMATITE FLOAT EXTENDS ABOUT 300M UP CK 3 AND CK 2.
- IT APPEARS TO BE COMING FROM THE RIDGE BETWEEN CK 2 & 3 ALTHOUGH I COULD NOT FIND A CONTACT.
- CAMPED ON THE CK OVERNIGHT.

AUGUST 11TH.

FOLLOWED SAME ROUTE AS YESTERDAY LOOKING FOR THE BRECCIA CONTACT. IT APPEARS TO COME FROM THE RIDGES BUT THEY ARE ALL COVERED WITH BLACK SHALE SCREE.

TRAVELLED CRS TO WEST AND EAST BUT NO SIGN OF BRECCIA IN THESE. THE FIRST CR TO THE N.E. OF KINI LAKE HAS SOME OLDER BRECCIA IN CONTACT WITH BLACK SHALE. THIS APPEARS TO BE THE TEND OF THE BRECCIA ON THE EAST SIDE OF THE MOUNTAINS.

AUGUST 12TH.

TRAVELLED SOUTH TO 1ST CREEK S.W. OF LAKE. FOLLOWED CREEK TO TOP OF MOUNTAIN THEN FOLLOWED RIDGE TO THE S.E. TOWARD QUARTET LAKES. 300m UPSTREAM THERE IS SOME COPPER MINERALIZATION. SAMPLED THE OUTCROPS AND A BRECCIA THAT APPEARS TO BE THE CAUSE OF THE MINERALIZATION. THE BRECCIA IS ABOUT A METRE IN AVERAGE WIDTH BUT SOME MINERALIZATION IS IN BANDS BETWEEN THE ARGILLITES (BLACK SHALES)

AUGUST 13TH.

TRAVELLED NORTH ~~THE~~ TO THIRD CR TO NE. TOOK A STREAM SEDIMENT SAMPLE AND FOLLOWED CREEK TO THE TOP. FLOAT IS MAINLY BLACK SHALE AS THE CREEK HAS FORMED DOWN A BEDDING PLANE ALL SOUTH FACING BANK IS EXPOSED BUT NORTH FACING BANK IS ALL SCREE. WAS HOPING TO FIND SOME BRECCIA BUT NOT TO BE.

OVERCAST
MORNING
RAIN
AFTERNOON

AUGUST 14TH.

SAMPLED CK No 1 NE OF LAKE THE NORTHERN BRANCH TO
TOP OF MOUNTAIN. MAINLY BLACK SHALE BOULDERS CUTTING
FROM BEDS. THE STREAM IS ESSENTIALLY THE SAME AS
YESTERDAY CUT THROUGH BEDDING. NO SIGN OF INTRUSIVES ALTHOUGH
THERE IS A VERY OLD CONGLOMERATE BED EXPOSED BETWEEN
THE BLACK SHALES. IT IS PARALLEL TO THE SHALES SO WAS
DEPOSITED BEFORE UPLIFT AND FOLDING. THE CLASTS ARE COMPOSED
OF BLACK SHALE AND QUARTZITE SO IT COULD HAVE BEEN AN
OLD STREAM BED OR LAKE BOTTOM. NO SIGN OF MINERALIZATION.

FINE AM
NET AFTER
NOON.

AUGUST 15TH.

WENT BACK TO 'HEMATITE CK' TO GET SOME MORE SAMPLES
AND TO SEE IF I COULD NAIL DOWN THE SOURCE. STILL
CANNOT FIND A VISIBLE EXPOSURE. BOULDERS OF HEMATITE IN
CREEK ARE LARGE 0.5m DIAMETER. FROM THERE WALKED DOWN
THE CREEK TO THE BONNET PLUME AND BACK TO CAMP.

FINE
MORNING
NET
AFTERNOON

AUGUST 16TH.

TRAVERSED WEST TO HEAD OF ILTYD CK BETWEEN NORTH AND
SOUTH AND CHECKED THE SLOPES OF MOUNTAINS TOWARD NIND
RIVER. CAMPED OVERNIGHT. NET AND MISERABLE DURING THE
AFTERNOON AND NIGHT.

DRIZZLY
ALL
DAY.

AUGUST 17TH.

TRAVERSED SOUTH AND WEST TO NIND RIVER THEN EAST
THROUGH THE PASS BACK TO KINI LAKE. TOOK 55 SAMPLES
ON MINERALIZED CK SOUTH OF KINI LAKE.

AUGUST 18TH.

BLOWING SNOW WIND AND SLEET ALL DAY CONFINED TO TENT.
SNOW AND WIND MOST OF THE NIGHT.

AUGUST 19TH.

TRAVERSED N.E. OF CAMP BUT MISERABLE AND WINDY. TOOK
ONE STREAM SEDIMENT SAMPLE ON CK FLOWING NORTH OUT OF
MOUNTAINS NE OF KINI LAKE. RETURNED BACK TO THE TENT
AT LAKE TO DRY OUT. TOPS OF ALL MOUNTAINS ARE STILL
COVERED IN SNOW FROM YESTERDAY.

AUGUST 20TH.

TRAVERSED N.N TO CHECK STREAM SHOWING INTERESTING
FLOAT ON DAY ONE. CIRCLED S.W FOLLOWING CREEK BACK
TO SOUTHERN END OF LAKE.

AUGUST 21ST.

PACKED SAMPLES AND GEAR. PICKED UP AT 9.00 PM
AND FLEW BACK TO MAYO.

AUGUST 22nd.

DROVE BACK TO WHITEHOUSE.