GEOCHEMISTRY REPORT

KATHY CLAIM

RECORD NUMBER 1493

OMINECA MINING DIVISION

NTS 93N/9 124^o27'N 55^o40'W

Owner:

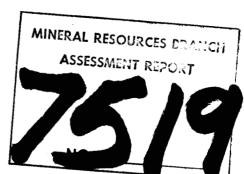
Noranda Mines Limited

Operator:

Mattagami Lake Exploration Limited

Author:

J.N. Helsen



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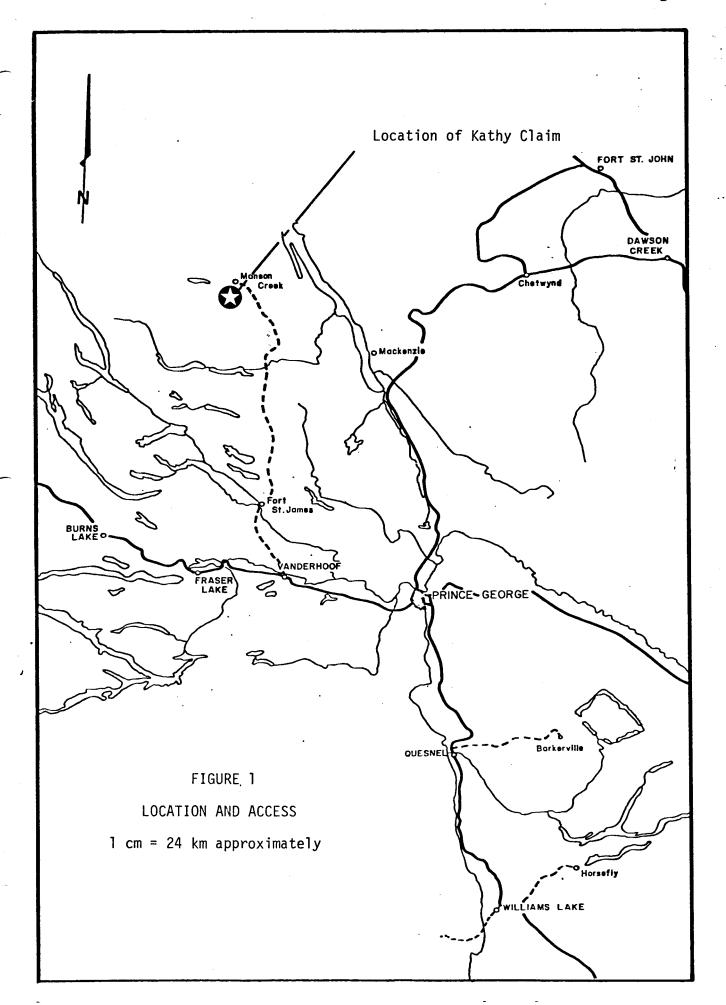
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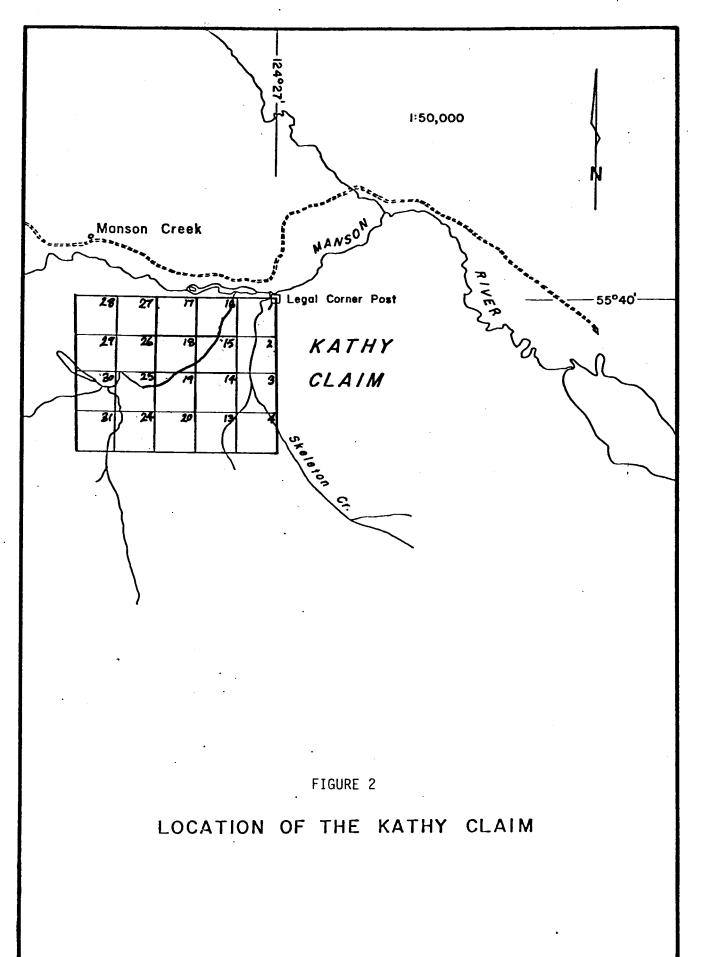
LOCATION AND ACCESS (Figure 1)

The claims are located at about 2.5 km southeast from Manson Creek, British Columbia, which is accessible via a good, gravel road from Ft. St. James some 190 km to the south. The property can be reached easily via several 4 \times 4 roads after crossing the Manson River. The average altitude is about 1,000 m above sea level.



PROPERTY DEFINITION (Figure 2)

The property consists of one claim, the Kathy claim, of 20 units, record number 1493 and owned by Noranda Mines Limited and operated by Mattagami Lake Exploration Limited.



PURPOSE OF THE WORK DONE

Well known (Mineral Inventory Map 93N) tungsten mineralization occurs on the Joy claim as well as some anomalous geochemical soil samples on the Joy 3 claim. Hence, the double purpose of the work done:

- i. exploratory attempt to locate a potential tungsten soil anomaly
- ii. an attempt to trace the continuation of the anomalous values in the soil on the Joy 3 claim and beyond, i.e. on the Kathy claim.

The work was performed by J. Helsen, D. Smyth, W. Gibbons and G. Schwab resulting in a total of 15 man days. Only 12 man days of work are registered for assessment purposes on the Kathy claim.

GENERAL GEOLOGY

The geology of the area has been described in G.S.C. Map 876A, Manson Creek (Armstrong, 1946) and very recently by Tipper, H.W., Campbell, R.B., Taylor, G.C. and Stott, D.F. (1979 G.S.C. Map 1424A, Parsnip River Sheet 93).

The geology of the area comprises a belt of Pennsylvanian-Permian Cache Creek metasediments and volcanics squeezed between the Germansen batholith (granitic) in the southwest and the Wolverine Complex in the northeast. The Germansen batholith has been dated as Upper Cretaceous (Columbian Epoch) whereas the Wolverine Complex although of unknown age is believed to be Proterozoic.

The Manson Creek Fault Zone, known for anomalous gold, lead and copper mineralization, apparently runs through the property with, it is believed, the anomalous (albeit very few) Cu, Pb, Zn values in soils, as a result. Tungsten occurs in an outcrop of very brittle schists in quartz veins and is possibly stratabound.

WORK DONE

In 1978 with the permission of Mr. Scafe, samples* were taken on all four Joy claims on 4 lines with 50 m intervals. These lines run:

north - south

east - west

northeast - southwest

northwest - southeast

A few anomalous values (in ppm) were encountered on the Joy 3 claim (table below).

LINE	SAMPLE #	. <u>Mo</u>	<u>W</u>	Cu	<u>Рь</u>	Zn —	Ag —
N-S	430	23	2	82	170	400	0.2
	432	6	2	90	8	103	0.2
NE-SW	802	11	18	258	2800	500	3.5
	804	8	12	33	86	334	0.2
E-W	398	33	.2	220	940	430	1.2
	402	30	2	92	300	230	0.2

Because of these anomalous values the Kathy claims were staked in October 1978 and the following work** has been done since:

- Sampling of the Kathy boundaries at 100 m intervals
 (76 samples).
- Soil sampling mainly on the units 7, 8, 9 and 10 west of Lost Creek at 50 m intervals (54 samples).
- 3. Soil sampling mainly on the units 7 and 2 and possibly some on unit 1, east of Lost Creek, also at 50 m intervals (57 samples).
- Sediment sampling in Lost Creek (22 samples).

The soil samples were sent away for geochemical analysis for W, Mo, Cu, Pb, Zn, Ag and Au. All analyses have or will be done by Noranda Exploration Company Ltd. Laboratories in Vancouver with the exception of the gold analyses which are in the process of being done (neutron activation analysis) by X-Ray Laboratories in Toronto.

Because the major part of the work was performed late in September the situation of the results is as follows. Out of a total of 187 soils and 20 sediments, Cu, Mo, Pb, Zn and Ag results were received for all the samples. W results have been received for all the samples except the soils from 600 to 727 inclusive. No gold data were received so far.

- * The samples taken in 1978 (*), sent to Chemex Laboratories in Calgary, Alberta, were digested in a perchloric-nitric acid solution.
- ** The samples taken in 1979 (**), sent to Noranda Exploration

 Company Ltd. in Vancouver, B.C., were digested in a perchloric
 nitric acid solution.

RESULTS

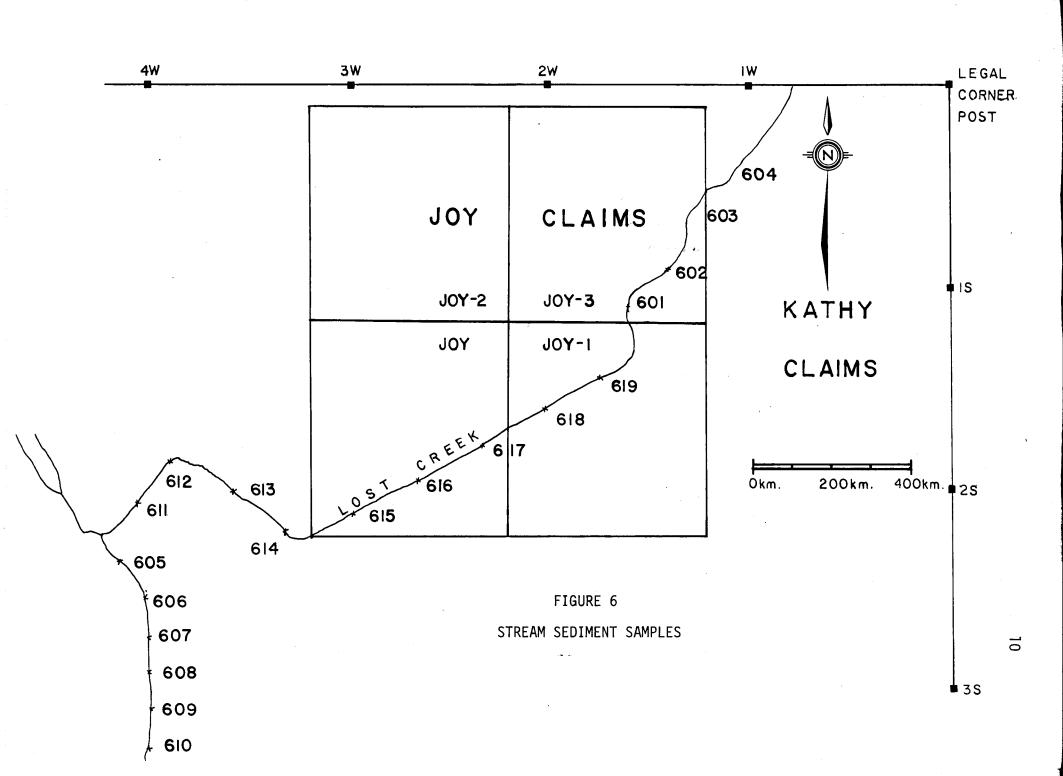
The soils were collected from the B-horizon just underneath the A-horizon. The results are plotted on Figures 3 to 5. The sediments were collected from Lost Creek only. (Figure 6).

The following threshold values (in ppm) were considered significant:

ELEMENT (ppm)	W	Мо	Cu	Pb	Zn	Ag	Au (ppb)
Threshold Values Sediments	20	6	100	20	140	2.0	50*
Values Soils	20	6	100	20	140	2.0	10*

The surrounding area has been extensively worked over for decades because of known gold occurrences. Because of trenching, bulldozing, percussion drilling, etc., by people in search of river channels, which include fossil ones and the present Lost Creek bed and flood plain, interpretation of the available results must be conservative.

Anomalous values for mainly Zn and Pb and to a lesser extent for Cu, Mo and Ag suggest more work but on in more detail, e.g. l sample every 10 meters.



STATEMENT OF COSTS

Kathy Claim, September 1979

G. S	Schwab	and W	. Gi	bbons
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•	
Travel to Manson Creek from Edmonton	Sept. 12 and 13
Work on Property	Sept. 21, 25, 26, 30
Salaries 6 man days \$1210. per month with payroll burden and bush bonus for each geologist	\$ 711 .4 8
Truck Rental Bowmac Jimmy 4 x 4	135.00
6 days \$22.50 per day 1600 km 12¢/km Gasoline	192.00 146.60
Accommodation - Prince George - 1 night	44.00
Manson Creek	82.14
Analyses 207 samples for Cu, Pb, Zn, Ag, Mo at \$1. (first element) and \$0.60	703.80
(successive elements). 54 samples for W at \$2.00 per sample	108.00
Report Writing and Drafting	200.00
	\$2323.02

CERTIFICATE

- I, Jan Helsen, of the City of Edmonton, Province of Alberta, do hereby certify that:
 - I am a geologist residing at 11515 75 Avenue, 1. Edmonton.
 - I am a graduate of the University of Leuven, Belgium 2. with a "Licenciaat in Geologie".
 - 3. I am a graduate of McMaster University, Ontario, with a M.Sc. (1970) and a Ph.D. (1976) in geology.
 - 4. I have been practicing my profession since 1976 and am at present Exploration Geologist with Mattagami Lake Exploration Limited.
 - 5. I am a fellow of the Geological Association of Canada.
 - 6. I supervised the work that is described in this report.

J. Helsen, Ph.D.

CERTIFICATE

- I, Wendy Gibbons, of the City of Winnipeg, Province of Manitoba, do hereby certify that:
 - I am a geologist residing at 34 #1 Snow Street,
 Winnipeg, Manitoba.
 - I am a graduate of the University of Manitoba (1979)
 with a degree in Geology.
 - I have been practicing my profession as a geologist since 1979 for Mattagami Lake Exploration Limited.

Dated.

W. Gibbons, B.Sc.

LEGAL CORNER POST = 670(-7) = 669(-7)728 + 571 572 573 574 575 576 577 578 579 580 581 (-,-) (-,-) (-,-) (-,-) (-,-) (26,5) (8,-) (4,-) (-,-) • 832(-,-) 540 541 542 543 544 545 546 547 548 549 550 (4,-) (-,-) (-,-) (-,-) (-,-) (-,-) (-,-) (-,-) (-,-) (-,-) • 830(3,-) •828(-,-) 671 672 673 674 675 676 677 678 679 680 681 (-,+) (-,+) (-,+) (-,+) (-,+) (-,+) (-,+) (-,+) 730 + JOY-3JOY-2 • 824(-,-) •822(4,--) 731 + • 820(3,—) KATHY 520 519 518 517 516 515 514 513 512 511 (-,-) (8,-) (6,-) (6,-) (8,-) (4,-) (6,-) (4,-) (-,-) 691 690 689 688 687 686 685 684 683 682 (-,+) (-,+) (-,+) (-,+) (4,+) (-,+) (-,+) (-,+) (-,5)IS 814(-,-) 442(3,4) 416(-,-) 412(3,-) 410(-,-) 406(-,-) 402(30,-+611 490(5,-502(-,-) 498(-,-) 494(5;-) 692 693 694 695 696 697 698 699 713 714 •774(4,8) 733 + (+,+) •776 (-,6) ·836(3,-) •778 (6,6) •838(-,-) +612 (-,+) 727 726 725 724 723 722 721 720 719 718 717 716 715 (-,+) (-,+) (-,+) (-,+) (-,+) (-,+) (-,+) (-,+) (-,+) (-,+) (-,+) (-,+) (-,+) (-,+) (-,+)•780(-,-) •840(-,-) 448(-,-) • 782(-,4) • 842(4,-) 450(-,-) .784(-.4) +613 •844(3,-) JOY-1 JOY (4, +) •786(-,-) 452(-,-) •846(3,-) • 788 (-,6) •848(3,-) 454(-,-) • 790(3,—) • 850 (4,—) (-,+) • 792 (27,8) 456(--,-) • 852 (5,-) 458 (-,-) 2S (6,+) 460(9,-) 462 (-,-) +617 (-, +)MATTAGAMI LAKE EXPLORATION (4,12) - SOIL SAMPLE (MO,W) LIMITED (-,-) - Mo and W =3 Figure 3. KATHY - JOY + NO SAMPLE RESULTS CLAIMS SOIL SAMPLING

MOLYBDENUM and TUNGSTEN RESULTS

MINERAL RESOURCES BRANCH

SEPTEMBER 1979

1:2,500

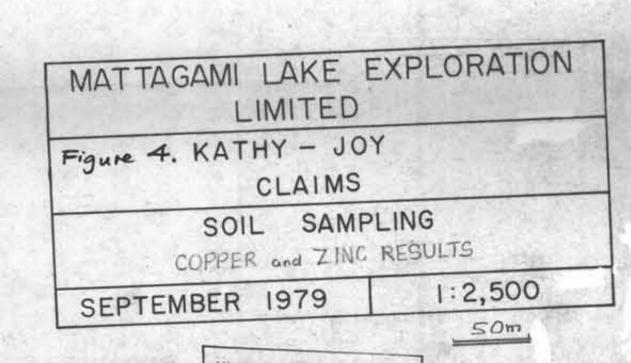
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LEGAL CORNER CORNER POST (18,80) +654 (120,450) +655 (120,450) +665 (120 (6,66) 571 572 573 574 575 576 577 578 579 580 581 (14,24) (22,74) (38,78) (68,82) (66,56) (62,120) (46,550) (18,150) (36,250) (22,74) (12,140) 728 + (30,130) • 832(28,89) 729 + (24,100) • 830(31,89) · 828 (34,86) • 826 (24,93) JOY-2 .822(54,210) • 820(38,157) KATHY • 796 (34, 72) •794 (120,322) 732 " IS +611 410(16,145) 406(38,76) 402(92,250) (24,62) 692 693 694 695 696 697 698 699 713 714 (18,70) (18,86) (10,72) (22,110) (14,72) (16,96) (24,120) (12,54) (52,190) (22,90) (20,110) 490(62) 502 (76,83) 498 (14,60) .774(20,140) •776 (12,70) 733 + +612 ·446 (32,122) ·778 (92,220) (10,58) 727 726 725 724 723 722 721 720 719 718 717 716 715 (14,88) (16,74) (20,68) (18,82) (12,170) (10,52) (32,120) (8,52) (38,150) (22,150) (24,64) (26,72) (28,120) • 838 (20,72) ·780 (12,195) .840 (24,118) 448 (22,130) • 782 (6,30) +613 (18,100) . 842(40,176) 450 (28,158) .784 (-) JOY-1 •786(14,68) JOY 452 (22, 148) . 846 (28,186) • 788 (6,40) +614 •848 (54,170) 454(36,140) (42,60) • 790 (34,105) • 850 (28,196) • 792 (82, 267) 456 (38,180) • 852 (36,220) 615 2S 458 (34,230) 140 ppm Zn __ (130,200) 460 (54,30) +616 462 (25,170) (32,110)

+ (24,170) (

(4,12) - SOIL SAMPLE (Cu,Zn)

+ NO SAMPLE RESULTS



+617

ASSESSMENT ALL DAT

LEGAL CORNER POST (14,16) 4656 (16,16) 4656 +607 728 + . 832(2,0.2) 729 + 671 672 673 674 675 676 677 678 679 680 681 (30,0.6) (14,1.8) (14,1.0) (22,1.2) (12,0.4) (8,0.8) (16,0.8) (14,0.8) (14,0.8) (12,0.6) (8,0.2) . 830(2,0.2) . 828 (2,0.2) JOY-2 500 501 502 503 504 505 506 507 508 509/ (18,1.4) (14,1.2) (14,1.0) (150,1.2) (14,08) (16,1.0) (16,1.2) (18,1.0) (14,0.6) 730 + (12,0.8) • 824(2,0.2) .822(6,0.2) KATHY . 820(18,0.2) 731 + 691 690 689 688 687 686 685 684 683 682 (28,0.8) (19,0.6) (34,1.0) (32,1.0) (10,0.6) (36,0.8) (20,0.8) (24,1.0) (20,1.2) (22,0.6) (12,0.8) • 796 (16,012) 732 " IS (14,0.6) 502(4,0.4) 498(2,0.2) 494(2,0.2) •774(24,0.2) •444(8,1.4) •776 (20,0.2) +612 (18,08) 733+ 446(2,0.2) .838 (7,0.1 •780 (2,0-2) 448 (8,0.2) .840(8,01) • 782(1,0.2) +613 . 842(8,04) (28,10) JOY-1 450 (4,0.4) . 844 (6,0.5) 100 m •786(2,0.2) JOY 452(6,04) .846(8,0.2 • 788 (2,0.2) +614 .848(6,0.2) (16,0.8) 454(2,0.2) • 790 (1:4,0.2) . 850 (6,0.2) . 792 (54,0.2) 456 (10,0.2) • 852 (8,0.2) 458 (8,0,2) 460(8,0.2) +616 462 (8,0,2) +617 MATTAGAMI LAKE EXPLORATION LIMITED (4,12) - SOIL SAMPLE (Pb, Ag) KATHY - JOY + NO SAMPLE RESULTS CLAIMS Figure 5. SOIL SAMPLING LEAD and SILVER RESULTS 1:2,500 SEPTEMBER 1979 , 50m MINERAL RESOURCES BRANCH

ASSESSMENT REPORT