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GEOLOGICAL AND GEOCHEMICAL REPORT

ON THE

LF - 1 TO 4

MINERAL CLAIMS

(LF "A" GROUP)

N.T.S. 93 H/06

Latitude: 53° 22'
Longitude: 121° 09'

CARIBOO MINING DIVISION
BRITISH COLUMBIA

NORANDA EXPLORATION COMPANY, LIMITED
(NO PERSONAL LIABILITY)

GEOLOGICAL BRANCH
ASSESSMENT REPORT

16,868

BY: MIKE SAVELL

FEBRUARY, 1988

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SUMMARY:

The LF 1 to 4 mineral claims were staked by Noranda in November 1986 to secure an area considered favourable for the occurrence of gold-silver-lead-zinc mineralized structures.

The property is underlain by Upper Proterozoic to Early Cambrian argillites, limestones and quartzites. It is cut diagonally by the Isaac Lake Fault.

Quartz veins up to 10 meters thick and undetermined length are found cutting quartzites. No mineralization was detected. A moderately strong lead-zinc-arsenic-antimony anomaly was found in a stream along the Isaac Lake Fault.

The silt anomaly should be followed up with soil sampling. The quartz veins may be a potential source of high grade silica.

INTRODUCTION:

The LF 1 to 4 mineral claims were staked by Noranda in November, 1986 to secure an area considered to have geology favourable to gold-silver-lead-zinc mineralization similar to Noranda's Dominion Creek Property approximately 10 km to the northwest. In addition, Regional Geochemical Reconnaissance maps for the area (GSC Open File 1215) indicate a similar stream sediment geochemical signature, with elevated levels in antimony and arsenic.

This report describes the initial geological and geochemical surveys undertaken in 1987 to assess the economic potential of the property. All work was performed by employees of Noranda Exploration Company, Limited.

LOCATION AND ACCESS:

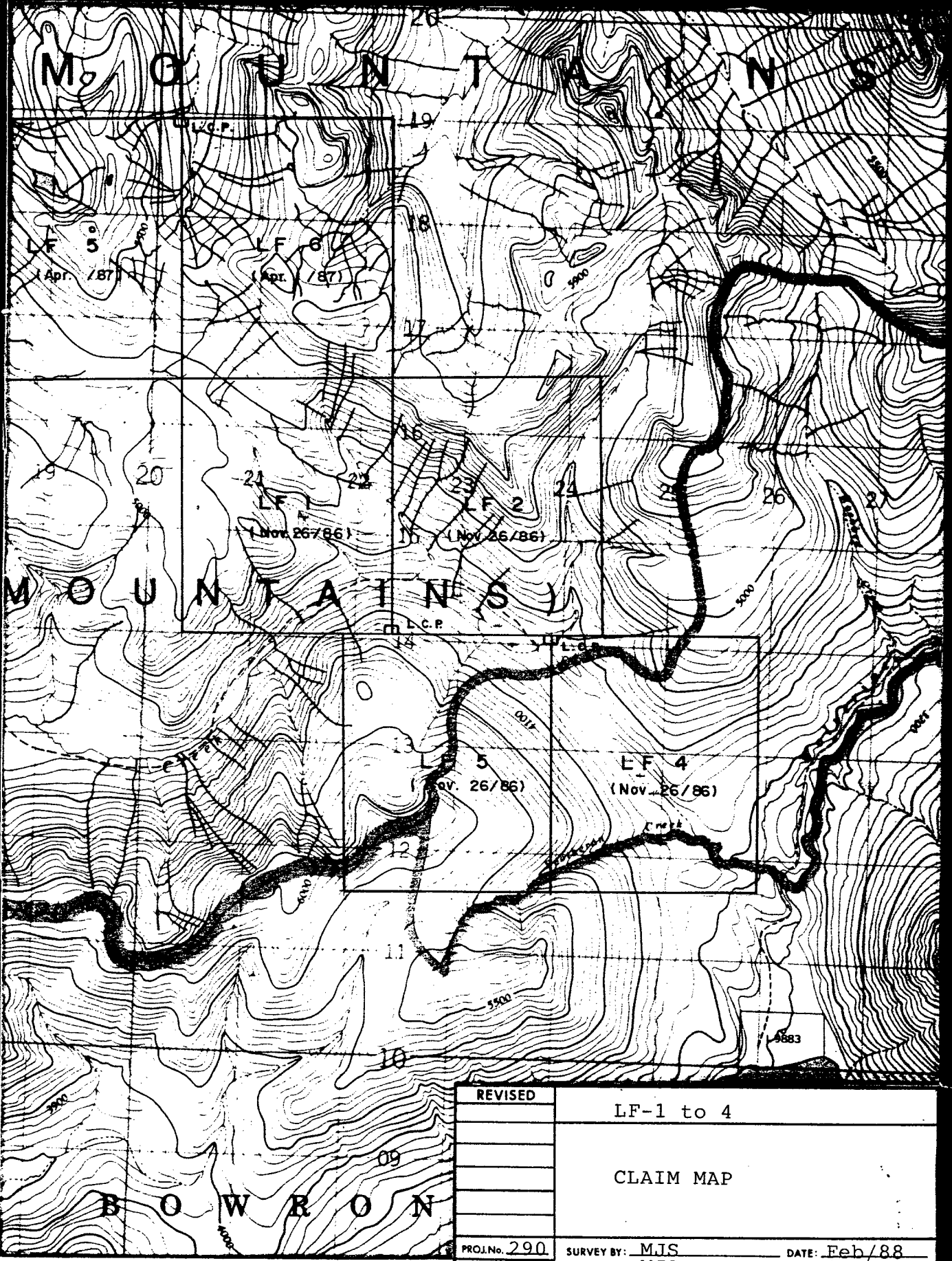
The property is located approximately 120 km southeast of Prince George. It can be reached via forest service roads from Prince George (150 km) and Wells (50 km). (Figure #1 and #2)

The survey employed both helicopter chartered from Prince George and trucks based in Wells to access the property.

PHYSIOGRAPHY & VEGETATION:

The claims lie within the Cariboo Mountains. Slopes are steep to very steep and elevations range from 1125 meters to over 1890 meters. The property is cut by the west flowing Littlefield Creek which is fed by many small tributaries draining the steep slopes of the property.

These slopes are covered with mature stands of balsam and white spruce. Treeline on south facing slopes begins at about 1850 meter elevation. Recent logging has removed most of the timber along the more gently sloping parts of Littlefield Creek valley (Figure #3).



| | | |
|--------------|----------------------------|-----------------|
| REVISED | LF-1 to 4 | |
| | CLAIM MAP | |
| PROJ.No. 290 | SURVEY BY: MJS | DATE: Feb/88 |
| N.T.S. | DRAWN BY: MJS | SCALE: 1:50,000 |
| DWG.No. | NORANDA EXPLORATION | |
| 2 | OFFICE: Prince George BC | |

CLAIM STATISTICS:

The property is comprised of a 80 unit block of modified grid claims as listed below (Figure #2). Upon acceptance of this report, the claims will be in good standing until the indicated expiry date.

| <u>NAME</u> | <u>RECORD #</u> | <u>RECORD DATE</u> | <u>UNITS</u> | <u>EXPIRY DATE</u> |
|--------------|-----------------|--------------------|--------------|--------------------|
| LF "A" GROUP | | | | |
| LF-1 | 8154 | Nov 26, 1986 | 20 | Nov 26, 1988 |
| LF-2 | 8140 | Nov 26, 1986 | 20 | Nov 26, 1988 |
| LF-3 | 8141 | Nov 26, 1986 | 20 | Nov 26, 1988 |
| LF-4 | 8142 | Nov 26, 1986 | 20 | Nov 26, 1988 |

PREVIOUS WORK:

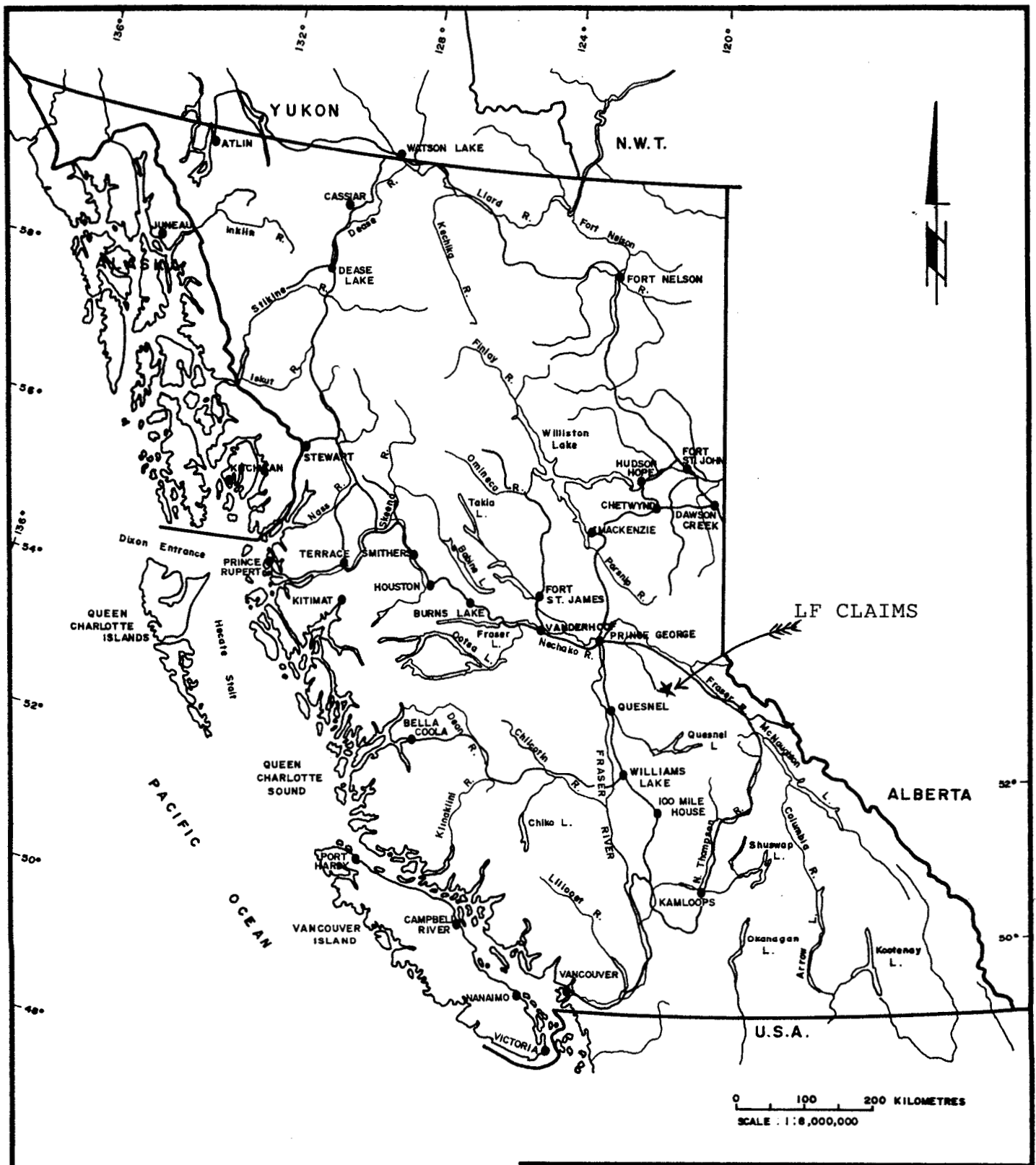
There is no record of any previous work having been conducted in the area prior to staking by Noranda. Recent logging operations have provided access for truck based regional prospecting and stream sediment surveys performed by several companies.

REGIONAL GEOLOGY:

The property lies in the Cariboo Mountains of the Omineca belt. The regional geology is comprised of Upper Proterozoic to Cambrian continental margin sediments including quartzite, sandstone, siltstone, shale and limestone. The area has been mapped at a scale of 1 inch to four kilometers (Map 1356A) and studied in Paper 72-35. Struik (1986) considers these rocks part of the Cariboo sub-terrane which is part of the Cassiar Terrane of displaced continental margin sediments.

These rocks have been grouped with the Upper Proterozoic Winderemere tectonic assemblage, which consists of mainly clastic continental margin sediments and the Lower Cambrian Gog tectonic assemblage consisting of rifted and passive continental margin sediments. On the property only rocks of the Isaac, Cunningham, and Yankee Belle Formation (Winderemere assemblage) are exposed.

The area has been deformed into a series of northwest plunging major fold structures. The northwest trending Isaac Lake Fault which roughly cuts through the centre of the property, separates the Isaac Lake Synclinerium to the east and the Lanezi Arch or Anticlinorium to the west. This deformational episode appears to have resulted in folding of deeper, older formations where as younger, high level formations display more fault dominated structures. This is probably a function of the physical characteristics (less competent shales at depth) of the rocks and the higher temperatures at depth. The rocks display low-grade metamorphic effects.



VANCAL 11927

| | | |
|----------------|------------------------------------|---------------------------|
| REVISED | LF-1 to 4 Claims | |
| | LOCATION MAP | |
| | | |
| | | |
| | | |
| | | |
| PROJ.No. _____ | SURVEY BY: <u>MJS</u> | DATE: <u>Feb/88</u> |
| N.T.S. _____ | DRAWN BY: <u>S.K.B.</u> | SCALE: <u>1:8,000,000</u> |
| DWG.No. | NORANDA EXPLORATION | |
| 1 | OFFICE: <u>PRINCE GEORGE, B.C.</u> | |

PROPERTY GEOLOGY:

The property is underlain by sedimentary rocks belonging to the Isaac, Cunningham and Yankee Belle Formations. The geology is presented on Figure #3. The Isaac Formation consists predominantly of dark grey to black, fine grained, finely laminated, fissile, phyllitic to slaty argillite. It is variably graphitic, calcareous and graphitic. Pyrite forms medium to coarse grained cubes with shadows of quartz and calcite. Lesser amounts of grey siltstone and quartzite are interbedded with the argillite. Grey to black, micritic limestone also forms a major component of the Isaac Formation near the upper gradational contact with the Cunningham Formation. This limestone may be finely interbedded with the argillite or form individual beds up to 25 to 30 meters thick, and increases in proportion upwards towards the Cunningham Formation. This limestone bearing member has been mapped as unit 1b.

The overlying Cunningham Formation consists of massive to faintly laminated, micritic to finely crystalline, medium grey limestones with minor interbeds of graphitic argillite. The youngest formation observed is the Yankee Belle which consists of massively bedded, pale grey to brown quartzite, dull green phyllitic siltstone, and minor quartz pebble conglomerate.

Quartz veining was observed cutting argillites and quartzites in the Isaac Formation and Yankee Belle Formations. The quartz is milky white, pure, aphanitic with sharp boundaries. These ranged from narrow, discontinuous veins up to 1 meter thick filling tension gashes in argillites, to massive paralleling veins up to 10 meters thick cutting quartzites. The exposed strike length of these veins is up to several tens of meters. No sulphide mineralization was observed. Minor silicification was observed in some wall rocks. These large veins strike parallel to the bedding, but are vertical and cut obliquely into the bedding dips. They may occupy dilatant zones in faults. Minor cross-cutting veinlets are observed in wall rocks adjacent to the large veins.

The Isaac Lake Fault, which cuts through the center of the property is of regional extent and is of probable transverse movement. This fault manifests itself on the property as a narrow linear swamp and stream valley. Other faults displayed on the geology map are largely inferred from juxtapositions of formations and abrupt changes in bedding attitude. These are likely steep to vertical block faults.

GEOCHEMICAL SURVEY:

Lithogeochemistry

A total of 15 rock samples were collected and analyzed by the ICP geochem method. Sample descriptions, locations and analytical results for lead, zinc, copper, arsenic, silver and gold are shown of Figure #4. The results for the remaining 25 elements determined are listed in Appendix IV. The samples were rock chips collected from outcrops and float boulders and averaged 0.5 to 1 kg. These were analyzed by ACME Analytical Laboratories of 852 E. Hastings St., Vancouver, B.C.

Most of the samples are of quartz veins, two are of quartzite and conglomerate.

Geochemical analyses detected very low levels of all economically significant elements and their indicators. High calcium and strontium levels in some samples reflect a high calcite content.

Stream Sediment Geochemistry

A total of 23 silt and 7 pan concentrates were collected from streams on or draining the property. Sample locations and analytical values are shown on Figure #4. The complete suite of elements analyzed are listed in Appendix V.

Silt samples were collected from the active stream channel, placed in high wet-strength Kraft paper envelopes and shipped to Vancouver, B.C. where they are analyzed by ACME Laboratories.

Only one significant anomaly was detected. This is sample #95061, which was collected from a small stream which drains the extreme north end of the LF - 1 claim. Values of 54 ppm lead, 238 ppm zinc, 60 ppm arsenic and 10 ppm antimony were obtained. Values of up to 69 ppm arsenic and 18 ppm antimony were obtained in a stream nearby indicating some continuity to the source. A value of 37 ppb gold was obtained in one sample, but this is not considered significant.

Panned concentrates were obtained from 20 litre gravel samples collected on upstream ends of gravel bars. The panned, heavy mineral concentrate (20 to 50 grams) was shipped to Noranda's Lab at 1050 Davie St., Vancouver, B.C., and analyzed as described in Appendix III. No significant anomalies were detected.

CONCLUSIONS:

Large quartz veins which cut the Early Paleozoic sedimentary sequence on the LF claims may occupy dilatent zones in faults. No economic mineralization has yet been detected. A lead, zinc, arsenic and antimony silt anomaly located in a stream along the Isaac Lake Fault may indicate mineralization in hidden veins, associated with this structure.

RECOMMENDATIONS:

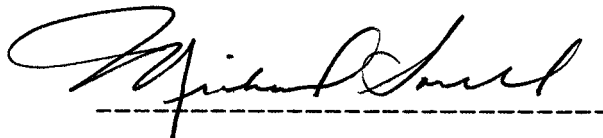
Follow-up soil sampling should be considered to pinpoint the source of the stream sediment anomaly. The quartz veins may provide a potential source for high grade silica and a detailed mapping program of these structures may be warranted.

APPENDIX I

STATEMENT OF QUALIFICATIONS

I, Michael J. Savell of the City of Prince George, Province of British Columbia, do certify that:

1. I am a geologist residing at 3507 Rosia Road, Prince George, British Columbia.
2. I am a graduate of Dalhousie University with a Bachelor of Science (Honors) in Geology.
3. I am a member in good standing of the Geological Association of Canada, Canadian Institute of Mining, Prospector's and Developer's Association and the B.C.-Yukon Chamber of Mines.
4. I presently hold the position of Project Geologist with Noranda Exploration Company, Limited and have been in their employ since 1980.



Michael J. Savell
Geologist
Noranda Exploration Company, Limited
(No Personal Liability)

APPENDIX II

STATEMENT OF COSTS

PROJECT: LF 1 TO 4 CLAIMS FEBRUARY, 1988
TYPE OF REPORT: GEOLOGICAL, GEOCHEMICAL

a) WAGES:
No. of days - 14
Rate per day - \$150.00
Dates from - June 1, 1987 to Sept. 1, 1987
Total Wages: \$ 2,100.00

b) FOOD & ACCOMMODATIONS:
No. of days - 14
Rate per day - \$50.00
Dates from - June 1, 1987 to Sept. 1, 1987
Total Food & Accommodations: \$ 700.00

c) TRANSPORTATION: (including helicopter)
No. of days - 14
Rate per day - \$155.00
Dates from - June 1, 1987 to Sept. 1, 1987
Total Transportation: \$ 2,170.00

d) ANALYSIS:
15 rock samples for 30 element ICP and Au geochem @ \$13.25/sample \$ 198.75
23 silt samples for 30 element ICP and Au geochem @ \$11.10/sample \$ 255.30
7 pan concentrates for Au, Ag, Pb, Zn, Cu, As @ \$9.00/sample \$ 63.00

e) COST OF PREPARATION OF REPORT:
Author \$ 250.00
Drafting \$ 100.00
Typing \$ 50.00

TOTAL COST: \$ 5,787.05

APPENDIX III

ANALYTICAL PROCEDURES

The methods listed are presently applied to analyse geological materials by the Noranda Geochemical Laboratory at Vancouver. (March, 1984).

PREPARATION OF SAMPLES

Sediments and soils are dried at approximately 80°C and sieved with a 80 mesh nylon screen. The -80 mesh (0.18 mm) fraction is used for analysis.

Rock specimens are pulverized to -120 mesh (0.13 mm). Heavy mineral fractions (panned samples) are analysed in its entirety, when it is to be determined for gold without further sample preparation.

ANALYSIS OF SAMPLES

Decomposition of a 0.200 g sample is done with concentrated perchloric and nitric acid (3:1), digested for 5 hours at reflux temperature. Pulps of rock or core are weighted out at 0.2 g or less depending on the matrix of the rock, and twice as much acid is used for decomposition that that is used for silt or soil.

The concentrations of Ag, Cd, Co, Cu, Fe, Mn, Mo, Ni, Pb, V and Zn (all the group A elements of the fee schedule) can be determined directly from the digest (dissolution) with an atomic absorption spectrometer (AA). A Varian-Techtron Model AA-5 or Model AA-475 is used to measure elemental concentrations.

ELEMENTS REQUIRING SPECIFIC DECOMPOSITION METHOD

Antimony - Sb: 0.2 g sample is attached with 3.3 ml of 6% tartaric acid, 1.5 ml conc. hydrochloric acid and 0.5 ml of conc. nitric acid, then heated in a water bath for 3 hours at 95°C. Sb is determined directly from the acid solution with an AA-475, equipped with electrodeless discharge lamp (EDL).

Arsenic - As: 0.2 - 0.4 g sample is digested with 1.5 ml of 70% perchloric acid and 0.5 ml of conc. nitric acid. A Varian AA-475 equipped with an As-EDL measures the arsenic concentration of the digest.

Barium - Ba: 0.1 g sample is decomposed with conc. perchloric, nitric and hydrofluoric acid. Atomic absorption using a nitrous oxide-acetylene flame determines Ba from the aqueous solution.

Bismuth - Bi: 0.2 g - 0.3 g is digested with 2.0 ml of perchloric 70% and 1.0 ml of conc. nitric acid. Bismuth is determined directly from the digest into the flame of the AA instrument c/w EDL.

Gold - Au: 10.0 g sample sample (Pan-concentrates see below) is digested with aqua regia (1 part nitric and 3 parts hydrochloric acid). Gold is extracted with Methyl iso-Butyl ketone (MIBK) from the aqueous solution. Gold is determined from the MIBK solution with flame AA.

Magnesium - Mg: 0.05 - 0.10 g sample is digested with 4 ml perchloric/nitric acid (3:1). An aliquot is taken to reduce the concentration to within the range of atomic absorption. The AA-475 with a nitrous oxide flame determines Mg from the aqueous solution.

Tungsten - W: 1.0 g sample sintered with a carbonate flux and thereafter leached with water. The leachate is treated with potassium thiocyanate. The yellow tungsten thiocyanate is extracted into tri-n-butyl phosphate. This permits colourimetric comparison with standards to measure tungsten concentration.

Uranium - U: An aliquot, taken from a perchloric-nitric (3:1) decomposition, usually from the multi-element digestion, is diluted with water and a phosphate buffer. This solution is exposed to laser light, and the luminescence of the uranyl ion is quantitatively measured on the UA-3 (Scintrex).

LOWEST VALUES REPORTED IN PPM

| | | | |
|----------|---------|---------|--------------------|
| Ag - 0.2 | Mn - 20 | Zn - 1 | Au - 0.01 (10 ppb) |
| Cd - 0.2 | Mo - 1 | Sb - 1 | W - 2 |
| Co - 1 | Ni - 1 | As - 1 | U - 0.1 |
| Cu - 1 | Pb - 1 | Ba - 10 | |
| Fe - 100 | V - 10 | Bi - 1 | |

APPENDIX IV

GEOCHEMICAL ICP RESULTS - ROCKS

Dominion Ch (MS)

ACME ANALYTICAL LABORATORIES

852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6

PHONE 253-3158

DATA LINE 251-1011

GEOCHEMICAL ICP ANALYSIS

.500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG.C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER. THIS LEACH IS PARTIAL FOR MN FE CA P LA CR MG BA TI B W AND LIMITED FOR NA AND K. AU DETECTION LIMIT BY ICP IS 3 PPM. - SAMPLE TYPE: Rock Chips AU ANALYSIS BY AA FROM 10 GRAM SAMPLE.

DATE RECEIVED: JUNE 29 1987

DATE REPORT MAILED: July 3/87

ASSAYER: D. J. DEAN TOYE, CERTIFIED B.C. ASSAYER

NORANDA EXPLORATION PROJECT-8707-010 280 File # 87-2057

| SAMPLE# | NO | CU | PB | ZN | AG | NI | CO | MN | FE | AS | U | AU | TH | SR | CD | SB | BI | V | CA | P | LA | CR | MG | BA | TI | B | AL | NA | K | W | AU | PPB |
|------------|-----|-----|-----|-----|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|------|-----|-----|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|
| | PPH | PPH | PPH | PPH | PPH | PPH | PPH | PPH | % | PPH | PPH | PPH | PPH | PPH | PPH | PPH | PPH | PPH | % | % | PPH | PPH | % | PPH | % | PPH | % | % | % | PPH | PPH | |
| 88635 | 1 | 4 | 2 | 12 | .1 | 7 | 2 | 84 | .96 | 5 | 5 | ND | 4 | 3 | 1 | 2 | 2 | 4 | .04 | .011 | 7 | 11 | .10 | 9 | .01 | 2 | .23 | .02 | .03 | 1 | 4 | |
| 88636 | 1 | 1 | 2 | 1 | .1 | 2 | 1 | 36 | .28 | 4 | 8 | ND | 2 | 1 | 1 | 2 | 2 | 1 | .01 | .001 | 7 | 3 | .01 | 5 | .01 | 2 | .02 | .02 | .02 | 1 | 1 | |
| 88637 | 1 | 3 | 2 | 2 | .1 | 3 | 1 | 37 | .35 | 2 | 7 | ND | 1 | 3 | 1 | 2 | 2 | 1 | .01 | .006 | 3 | 4 | .01 | 5 | .01 | 2 | .01 | .01 | .01 | 1 | 2 | |
| 88638 | 1 | 5 | 2 | 6 | .1 | 4 | 2 | 95 | .66 | 3 | 5 | ND | 3 | 4 | 1 | 2 | 2 | 1 | .01 | .007 | 9 | 5 | .01 | 38 | .01 | 2 | .06 | .01 | .03 | 1 | 4 | |
| 88639 | 1 | 4 | 2 | 2 | .1 | 4 | 1 | 83 | .56 | 4 | 5 | ND | 1 | 1 | 1 | 2 | 2 | 1 | .01 | .002 | 2 | 6 | .01 | 2 | .01 | 2 | .02 | .01 | .01 | 1 | 1 | |
| 88640 | 1 | 7 | 5 | 9 | .1 | 8 | 2 | 161 | .74 | 8 | 5 | ND | 1 | 5 | 1 | 2 | 2 | 1 | .15 | .015 | 2 | 4 | .01 | 7 | .01 | 2 | .04 | .01 | .02 | 1 | 1 | |
| 88642 | 1 | 3 | 2 | 2 | .1 | 3 | 1 | 66 | .34 | 2 | 5 | ND | 1 | 18 | 1 | 2 | 2 | 1 | .26 | .001 | 2 | 3 | .01 | 1 | .01 | 2 | .01 | .01 | .01 | 1 | 1 | |
| 88644 | 1 | 1 | 2 | 7 | .1 | 2 | 1 | 59 | .32 | 2 | 5 | ND | 1 | 765 | 1 | 2 | 2 | 1 | 8.02 | .001 | 2 | 3 | .03 | 5 | .01 | 2 | .01 | .10 | .01 | 1 | 3 | |
| 88647 | 1 | 5 | 10 | 30 | .1 | 8 | 3 | 122 | 1.87 | 6 | 5 | ND | 1 | 15 | 1 | 2 | 2 | 4 | .22 | .004 | 2 | 3 | .39 | 2 | .01 | 2 | .58 | .01 | .01 | 1 | 1 | |
| 88648 | 1 | 3 | 2 | 11 | .1 | 4 | 1 | 109 | .81 | 2 | 5 | ND | 2 | 12 | 1 | 2 | 2 | 1 | .20 | .009 | 12 | 6 | .15 | 1 | .01 | 2 | .21 | .01 | .01 | 1 | 2 | |
| 95051 | 1 | 1 | 2 | 1 | .1 | 2 | 1 | 45 | .30 | 2 | 5 | ND | 1 | 1 | 1 | 2 | 3 | 1 | .01 | .001 | 2 | 5 | .01 | 1 | .01 | 2 | .01 | .01 | .01 | 1 | 1 | |
| 95053 | 1 | 11 | 3 | 5 | .1 | 9 | 3 | 89 | 1.74 | 4 | 5 | ND | 1 | 6 | 1 | 9 | 2 | 1 | .16 | .030 | 5 | 4 | .01 | 2 | .01 | 2 | .03 | .01 | .01 | 1 | 2 | |
| 95056 | 1 | 5 | 4 | 5 | .2 | 2 | 1 | 376 | 1.11 | 2 | 5 | ND | 1 | 623 | 1 | 2 | 2 | 2 | 17.98 | .010 | 7 | 4 | .38 | 1 | .01 | 2 | .20 | .24 | .01 | 2 | 1 | |
| 95058 | 1 | 3 | 4 | 2 | .2 | 2 | 1 | 142 | .51 | 2 | 5 | ND | 1 | 735 | 1 | 2 | 2 | 1 | 11.75 | .001 | 2 | 3 | .06 | 2 | .01 | 2 | .01 | .19 | .01 | 1 | 3 | |
| 95062 | 1 | 5 | 30 | 61 | .1 | 10 | 3 | 445 | 2.74 | 8 | 5 | ND | 2 | 256 | 1 | 2 | 2 | 2 | 3.66 | .007 | 3 | 2 | .88 | 9 | .01 | 2 | .07 | .01 | .03 | 1 | 1 | |
| STD C/AU-R | 20 | 58 | 36 | 134 | 6.7 | 67 | 28 | 983 | 4.02 | 43 | 18 | 8 | 33 | 46 | 17 | 17 | 18 | 63 | .46 | .085 | 35 | 58 | .87 | 176 | .08 | 35 | 1.69 | .06 | .13 | 12 | 495 | |

CC: Mike

RECEIVED
JUL - 9 1987

7/7/87 MS

Bonson (MS)

8707-009

ACME ANALYTICAL LABORATORIES

852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6

PHONE 253-3158

DATA LINE 251-1011

GEOCHEMICAL ICP ANALYSIS

.500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG.C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER. THIS LEACH IS PARTIAL FOR MN FE CA P LA CR MG BA TI B W AND LIMITED FOR NA AND K. AU DETECTION LIMIT BY ICP IS 3 PPM. - SAMPLE TYPE: Rock Chips AU ANALYSIS BY AA FROM 10 GRAM SAMPLE.

DATE RECEIVED: JUNE 29 1987

DATE REPORT MAILED:

July 6/87

ASSAYER...

D. J. J.

DEAN TOYE, CERTIFIED B.C. ASSAYER

NORANDA EXPLORATION PROJECT-8707-009-278 File # 87-2055

| SAMPLE# | MO | CU | PB | ZN | AG | NI | CO | MN | FE | AS | U | AU | TH | SR | CD | SB | BI | V | CA | P | LA | CR | MG | BA | TI | B | AL | NA | K | W | AU# |
|---------|-----|-----|-----|-----|-----|-----|-----|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|-----|-----|------|-----|-----|-----|------|-----|-----|-----|-----|
| | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | % | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | % | % | PPM | PPM | % | PPM | % | PPM | % | % | % | PPM | PPM |
| 54747 | 1 | 36 | 5 | 37 | .1 | 135 | 22 | 422 | 2.84 | 5 | 5 | ND | 1 | 7 | 1 | 2 | 2 | 46 | 1.06 | .021 | 2 | 204 | 3.14 | 52 | .15 | 2 | 1.86 | .11 | .01 | 2 | 1 |
| 77501 | 3 | 23 | 4 | 10 | .1 | 33 | 5 | 308 | 1.64 | 3 | 5 | ND | 3 | 9 | 1 | 2 | 2 | 36 | .02 | .005 | 6 | 17 | .03 | 127 | .01 | 2 | .23 | .01 | .03 | 1 | 1 |
| 77502 | 1 | 11 | 6 | 87 | .1 | 44 | 39 | 1494 | 7.63 | 8 | 5 | ND | 1 | 10 | 1 | 2 | 2 | 169 | 2.19 | .049 | 2 | 13 | 1.19 | 64 | .01 | 2 | .79 | .01 | .03 | 1 | 1 |
| 77590 | 1 | 14 | 4 | 3 | .1 | 8 | 2 | 50 | .73 | 5 | 5 | ND | 1 | 1 | 1 | 2 | 2 | 1 | .01 | .001 | 2 | 4 | .01 | 1 | .01 | 2 | .01 | .01 | .01 | 1 | 1 |
| 77679 | 1 | 16 | 2 | 7 | .1 | 12 | 2 | 92 | .95 | 7 | 5 | ND | 1 | 1 | 1 | 2 | 2 | 4 | .03 | .001 | 2 | 6 | .02 | 5 | .01 | 2 | .09 | .01 | .02 | 1 | 1 |

APPENDIX V

GEOCHEMICAL ICP RESULTS - SILTS

GEOCHEMICAL ICP ANALYSIS

.500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG.C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER. THIS LEACH IS PARTIAL FOR NA FE CA P LA CR MG BA TI B W AND LIMITED FOR NA AND K. AU DETECTION LIMIT BY ICP IS 3 PPM.

- SAMPLE TYPE: SILT - BONEGR AU ANALYSIS BY AA FROM 10 GRAM SAMPLE.

DATE RECEIVED: JULY 2 1987

DATE REPORT MAILED: July 7/87

ASSAYER: D. Toye DEAN TOYE, CERTIFIED B.C. ASSAYER

NORANDA EXPLORATION (VAN) PROJECT-B707-024/280 File # B7-2163

Table with columns: SAMPLE#, NO, CU, PB, ZN, AG, NI, CO, MN, FE, AS, U, AU, TH, SR, CD, SB, BI, V, CA, P, LA, CR, MG, BA, TI, B, AL, NA, K, W, AU, and AUB. Rows include sample numbers like 77676 P, 77678, 77680 P, 77681 P, 77682, 77702, 88643, 88646, 88650 P, 95059, 95060, 95061, 95063, 95064, 95065, 95066, 95067, 95068 P, 95069 P, 95070 P, 95071 P, 95072, and STD C/AU-S.

cc: Mike
file: Dominion

RECEIVED
JUL 14 1987
REGULATED

13/7/87 ms

Sample # 274

18709-077

ACME ANALYTICAL LABORATORIES 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6 PHONE 253-3158 DATA LINE 251-1011

GEOCHEMICAL ICP ANALYSIS

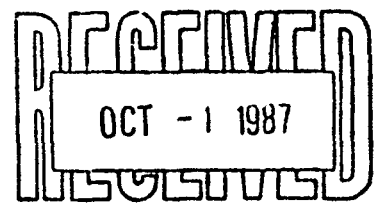
.500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG.C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER. THIS LEACH IS PARTIAL FOR MN FE CA P LA CR MG BA TI B W AND LIMITED FOR NA AND K. AU DETECTION LIMIT BY ICP IS 3 PPM. - SAMPLE TYPE: SILT AU: ANALYSIS BY AA FROM 10 GRAM SAMPLE.

DATE RECEIVED: SEPT 21 1987 DATE REPORT MAILED: Sept 29/87 ASSAYER: D. Toye DEAN TOYE, CERTIFIED B.C. ASSAYER

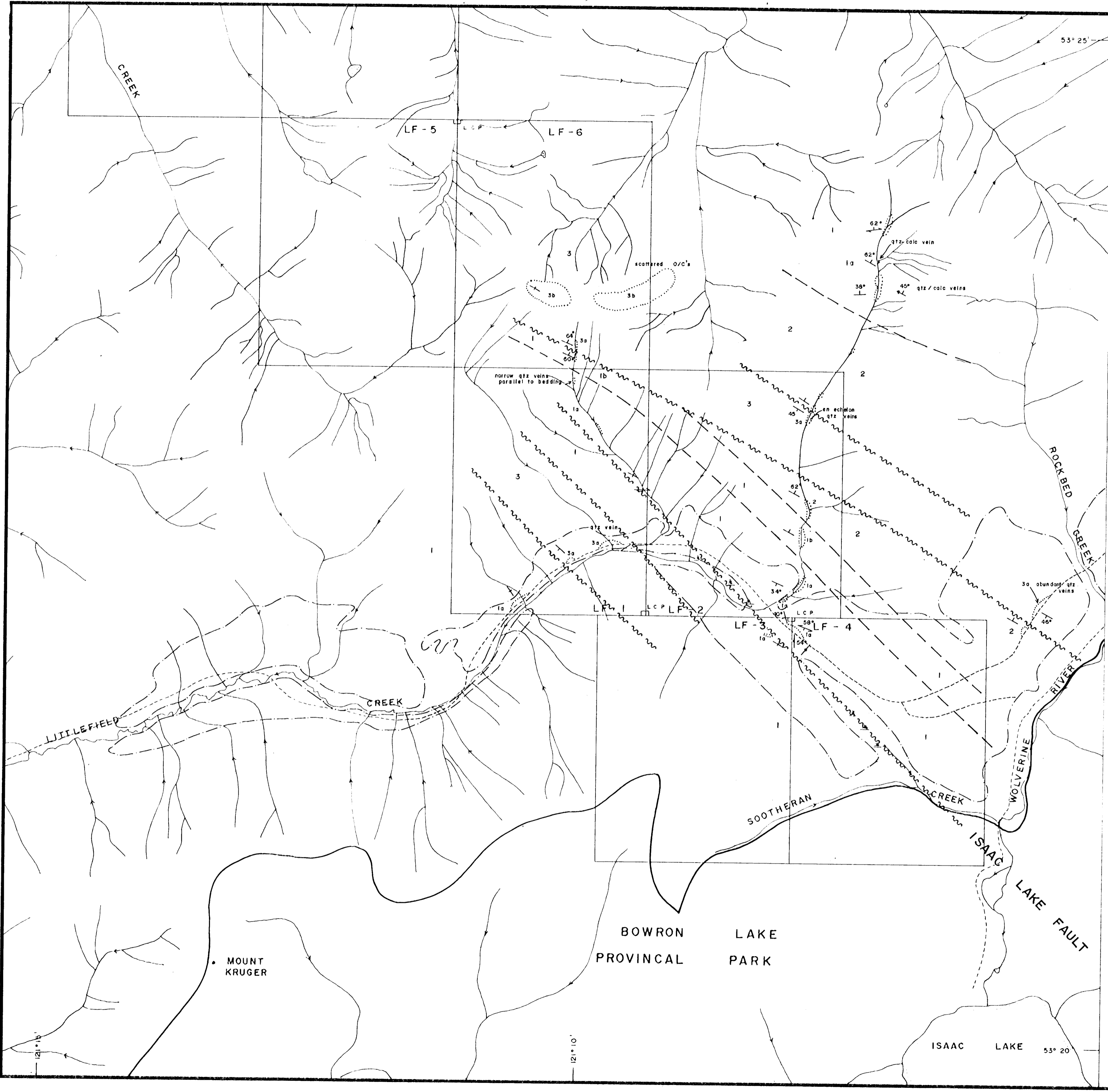
NORANDA EXPLORATION (VAN) PROJECT-8709-077 274 File # 87-4354

| SAMPLE# | MO | CU | PB | ZN | AG | NI | CO | MN | FE | AS | U | AU | TH | SR | CD | SB | BI | V | CA | P | LA | CR | MG | BA | TI | B | AL | NA | K | W | AU |
|---------|-----|-----|-----|-----|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|-----|-----|-----|-----|-----|---|------|-----|-----|-----|-----|
| | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | % | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | % | % | PPM | PPM | % | PPM | % | % | % | % | % | PPM | PPM |
| 77511 | 1 | 12 | 16 | 94 | .1 | 19 | 10 | 687 | 3.96 | 9 | 5 | ND | 6 | 44 | 1 | 2 | 3 | 5 | .29 | .037 | 16 | 3 | .11 | 56 | .01 | 2 | .44 | .02 | .05 | 1 | 2 |
| 77512 | 1 | 21 | 17 | 89 | .2 | 29 | 13 | 505 | 3.81 | 7 | 5 | ND | 12 | 135 | 1 | 2 | 2 | 9 | 1.82 | .042 | 31 | 18 | .65 | 25 | .01 | 4 | 1.21 | .03 | .06 | 1 | 1 |
| 77513 | 1 | 32 | 21 | 91 | .2 | 45 | 18 | 459 | 5.36 | 15 | 5 | ND | 12 | 35 | 1 | 3 | 3 | 7 | .43 | .038 | 25 | 17 | .33 | 27 | .01 | 3 | .70 | .02 | .11 | 2 | 1 |
| 77514 | 1 | 26 | 17 | 105 | .3 | 35 | 13 | 576 | 4.42 | 19 | 5 | ND | 12 | 30 | 1 | 5 | 3 | 7 | .32 | .033 | 26 | 15 | .36 | 26 | .01 | 2 | .78 | .03 | .11 | 1 | 1 |

P-20 MESH, PULVERIZED



cc: Mike
file: 274



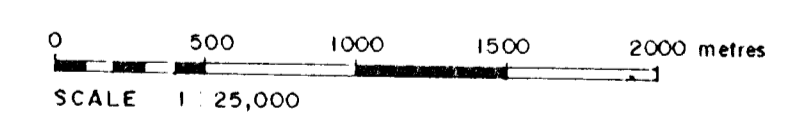
LEGEND

- ROCK TYPES**
 HADRYNIAN (WINDEREMERE)
- 3** YANKEE BELLE FORMATION
 - 3a Massive, pale grey to brown, fine to med-grained quartzite with minor siltstone.
 - 3b Dull green phyllitic siltstone, minor quartzite.
 - 2** CUNNINGHAM FORMATION
 - 2 Massive to bedded, med grey, finely crystalline limestone.
 - 1** ISAAC FORMATION
 - 1a Black, phyllitic argillite, graphitic, pyritic, laminated.
 - 1b Interbedded black argillite and dark grey limestone.

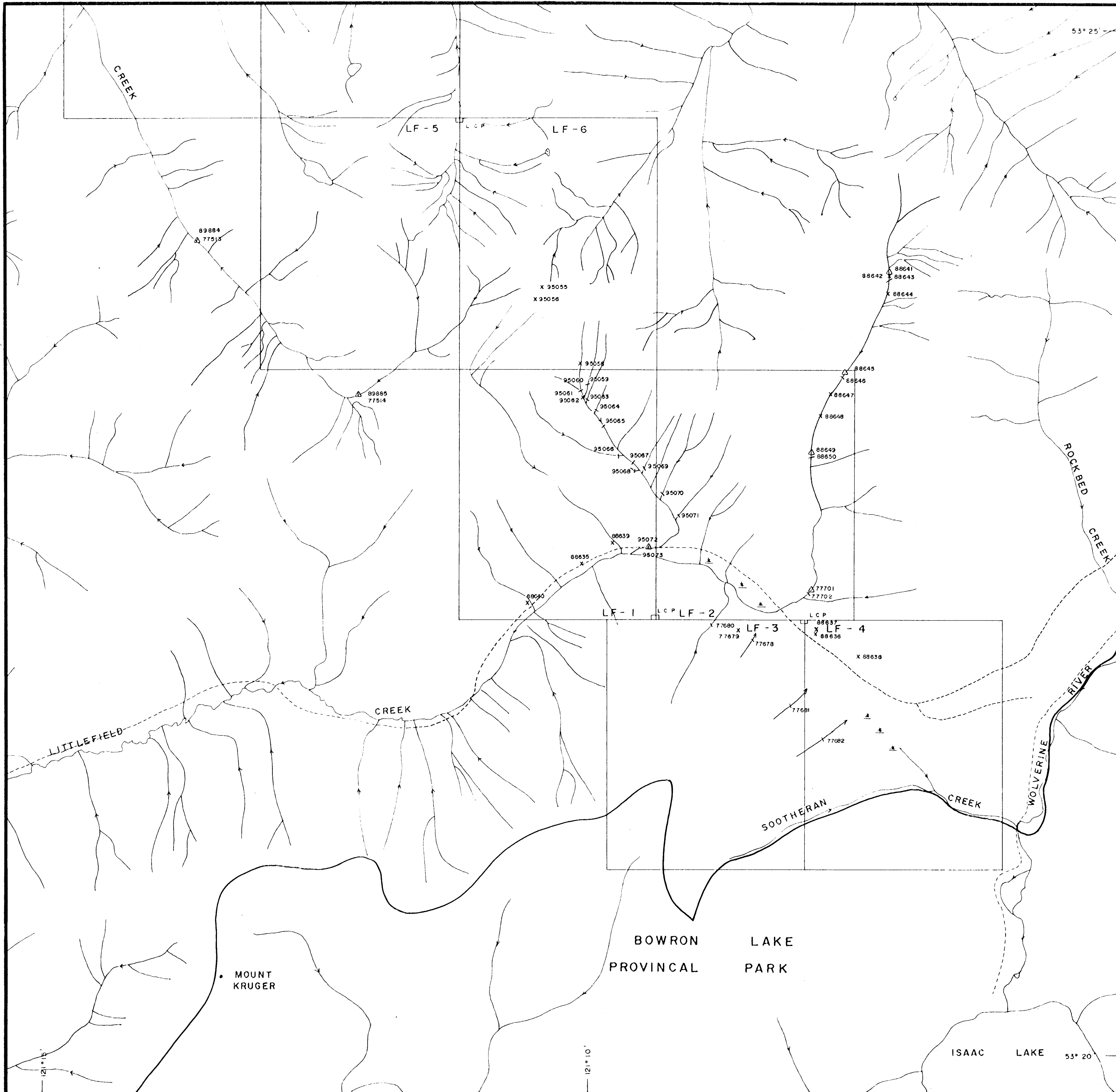
- SYMBOLS**
- Bedding
 - Foliation
 - Jointing
 - - - Geological contact: defined, assumed
 - ~ Fault: defined, assumed
 - Outcrop or area of outcrop
 - Outline of clear cut areas
 - Road

GEOLOGICAL BRANCH ASSESSMENT REPORT

16,868



| | | |
|-----------------|----------------------------|-----------------|
| REVISED | DOMINION CREEK PROJECT | |
| | GEOLOGY | |
| | LF-1 to 4 CLAIMS | |
| PROJ. No. 280 | SURVEY BY: T.C., R.P. | DATE: JULY 1987 |
| N.T.S. 93H/6.11 | DRAWN BY: S.K.B. | SCALE: 1:25,000 |
| DWG. No. | NORANDA EXPLORATION | |
| FIG. 3 | OFFICE PRINCE GEORGE, B.C. | |



LEGEND

- △ Silt Sample
- Pan Sample
- x Rock Sample

TABLE OF ANALYSES

ROCK GEOCHEMISTRY

| SAMPLE # | LITHOLOGY | WIDTH | (all values in ppm except where noted) | | | | | |
|----------|----------------|--------|--|----|----|----|-----|---------|
| | | | Pb | Zn | Cu | As | Ag | Au(ppb) |
| 77679 | Quartz Vein | 0.5 m | 2 | 7 | 16 | 7 | 0.1 | 1 |
| 88635 | Quartz Vein | 0.5 m | 2 | 12 | 4 | 5 | 0.1 | 4 |
| 88636 | Quartz Vein | 3.0 m | 2 | 1 | 1 | 4 | 0.1 | 1 |
| 88637 | Quartz Vein | 10.0 m | 2 | 2 | 3 | 2 | 0.1 | 2 |
| 88638 | Qtz pebble cgl | Grab | 2 | 6 | 5 | 3 | 0.1 | 4 |
| 88639 | Quartz Vein | 8.0 m | 2 | 2 | 4 | 4 | 0.1 | 1 |
| 88640 | Quartz Vein | 4.0 m | 5 | 9 | 7 | 8 | 0.1 | 1 |
| 88642 | Quartz Vein | 1.0 m | 2 | 2 | 3 | 2 | 0.1 | 1 |
| 88644 | Quartz Vein | 1.0 m | 2 | 7 | 1 | 2 | 0.1 | 3 |
| 88647 | Quartz Vein | 2.0 m | 19 | 30 | 5 | 6 | 0.1 | 1 |
| 88648 | Quartz Vein | 2.0 m | 2 | 11 | 3 | 2 | 0.1 | 1 |
| 95055 | Quartz Vein | 1.0 m | 3 | 5 | 11 | 4 | 0.1 | 2 |
| 95056 | Quartzite | 0.5 m | 4 | 5 | 5 | 2 | 0.2 | 1 |
| 95058 | Quartz Vein | 0.75 m | 4 | 2 | 3 | 2 | 0.2 | 3 |
| 95062 | Quartz Vein | 1.5 m | 30 | 61 | 5 | 8 | 0.1 | 1 |

SILT GEOCHEMISTRY

(all values in ppm except where noted)

| SAMPLE # | Pb | Zn | Cu | As | Ag | Au(ppb) |
|----------|----|-----|----|----|-----|---------|
| 77513 | 21 | 91 | 32 | 15 | 0.2 | 1 |
| 77514 | 17 | 105 | 26 | 19 | 0.3 | 1 |
| 77678 | 30 | 123 | 25 | 22 | 0.1 | 1 |
| 77680 | 18 | 113 | 37 | 52 | 0.1 | 5 |
| 77681 | 21 | 93 | 31 | 22 | 0.1 | 1 |
| 77682 | 29 | 106 | 29 | 24 | 0.3 | 1 |
| 77702 | 22 | 85 | 26 | 15 | 0.1 | 1 |
| 88643 | 28 | 103 | 23 | 21 | 0.2 | 37 |
| 88646 | 30 | 129 | 28 | 22 | 0.2 | 1 |
| 88650 | 23 | 103 | 32 | 18 | 0.1 | 1 |
| 95059 | 27 | 119 | 24 | 45 | 0.1 | 1 |
| 95060 | 23 | 117 | 25 | 38 | 0.1 | 1 |
| 95061 | 54 | 238 | 28 | 60 | 0.1 | 1 |
| 95063 | 36 | 195 | 34 | 37 | 0.2 | 1 |
| 95064 | 41 | 156 | 44 | 69 | 0.2 | 13 |
| 95065 | 34 | 130 | 41 | 61 | 0.2 | 5 |
| 95066 | 35 | 112 | 34 | 47 | 0.1 | 1 |
| 95067 | 32 | 144 | 30 | 41 | 0.1 | 1 |
| 95068 | 26 | 111 | 30 | 25 | 0.2 | 1 |
| 95069 | 31 | 124 | 41 | 29 | 0.2 | 1 |
| 95070 | 21 | 115 | 27 | 16 | 0.1 | 1 |
| 95071 | 22 | 121 | 27 | 24 | 0.1 | 1 |
| 95072 | 25 | 88 | 25 | 24 | 0.1 | 1 |

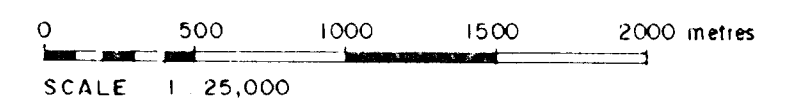
PAN CONCENTRATES

(All values in ppm except where noted)

| SAMPLE # | Pb | Zn | Cu | Ag | Au (ppb) |
|----------|-----|-----|-----|-----|----------|
| 77701 | 20 | 76 | 40 | 0.8 | 10 |
| 88641 | 54 | 140 | 66 | 0.2 | 10 |
| 88645 | 60 | 130 | 80 | 0.2 | 10 |
| 88649 | 70 | 120 | 90 | 0.4 | 10 |
| 95073 | 130 | 140 | 98 | 0.4 | 10 |
| 89884 | 98 | 140 | 140 | 0.4 | 40 |
| 89885 | 88 | 110 | 120 | 0.6 | 20 |

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16,868



| | | |
|-----------------|----------------------------|-----------------|
| REVISED | DOMINION CREEK PROJECT | |
| | SAMPLE LOCATION MAP | |
| | LF-1 to 4 CLAIMS | |
| PROJ. No. 280 | SURVEY BY: T.C., R.P. | DATE: JULY 1987 |
| N.T.S. 331/6.11 | DRAWN BY: S.K.B. | SCALE: 1:25,000 |
| DWG. No. | NORANDA EXPLORATION | |
| FIG. 4 | OFFICE PRINCE GEORGE, B.C. | |