

SOIL GEOCHEMISTRY REPORT

JIM GROUP

NELSON MINING DIVISION

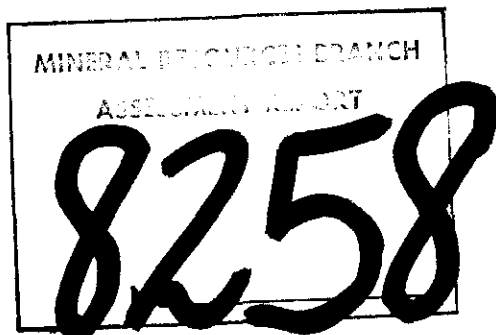
82F 3W

49°08'35" N, 117°19'40"W

Owner/Operator:

Amoco Canada Petroleum Company Ltd.
Mining Division
#656 - 409 Granville Street
Vancouver, B.C.
V6C 1T2

Report written by
Bernard MacIsaac
July 1980



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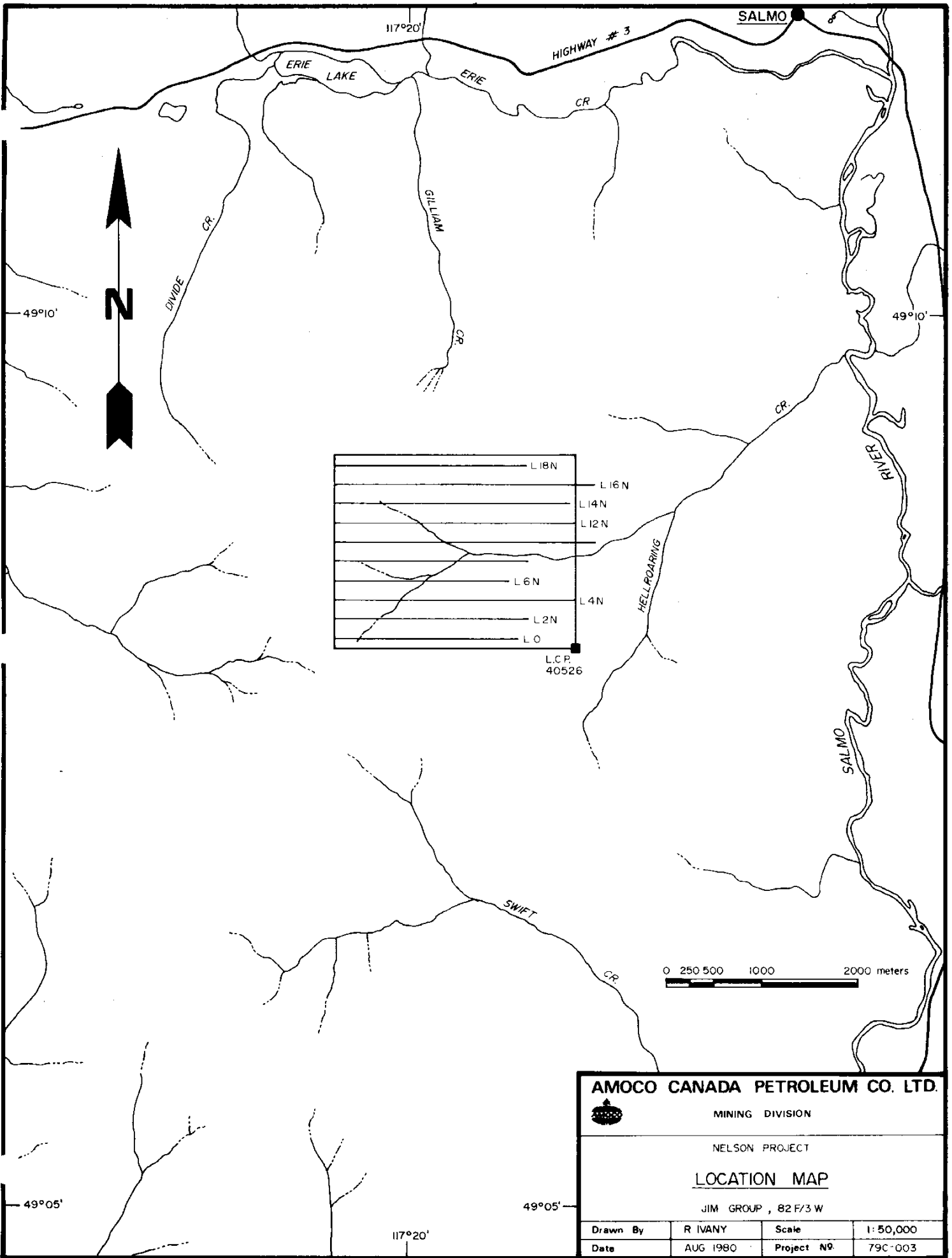
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AMOCO CANADA PETROLEUM CO. LTD.



MINING DIVISION

NELSON PROJECT

LOCATION MAP

JIM GROUP, 82 F/3 W

Drawn By	R IVANY	Scale	1: 50,000
Date	AUG 1980	Project N ^o	79C-003

INTRODUCTION

The Jim Group is one claim containing 20 contiguous units which are located at the headwaters of Hellroaring Creek approximately eight kilometres southwest of Salmo. The group is accessible by road which follows Hellroaring and Swift Creeks. Relief on the group is approximately 350 m. Parts of the group required helicopter support because there was no available road access.

Amoco Canada Petroleum Company Ltd., Mining Division, is the owner and operator of the Jim Group.

The claim group is underlain by volcanics of the Lower to Middle Jurassic Rossland Formation cut by a small granodiorite plug probably related to the Lower Cretaceous Nelson Plutonic sequence.

Geochemical soil sampling has confirmed the presence of moderate copper values in the vicinity of the aforementioned granodiorite plug.

JIM GROUP

	<u>Units</u>	<u>Tag No.</u>	<u>Date Staked</u>	<u>Anniversary Date</u>	<u>Record No.</u>
Jim	20	40526	Aug.13,1979	August 13,1980	1153

GEOLOGY

The entire Jim Group is underlain by volcanics of the Lower to Middle Jurassic Rossland Formation, intruded by Lower Cretaceous Nelson Granodiorite. Overburden thickness was considerable over the majority of the anomaly, with outcrop occurring on the ridges and in some of the stream valleys. One felsic tuff horizon approximately 2 m thick, with an approximate NE strike and SE dip, was found to contain up to 10% pyrite with traces of chalcopyrite and malachite. The volcanics typically contain up to 1% pyrite. No other economic sulphide minerals were recognized.

GEOCHEMISTRY

During the periods June 17 & 18 and June 28, 29 & 30, twenty-three mandays were spent collecting soil samples along pace and compass lines within the Jim Group claim boundaries. A helicopter, based at Nelson, was used for reconnaissance of the area and for the deployment of personnel due to the long walking distances involved at the north end of the grid. The remainder of the grid was accessible by an active logging road owned by Louisiana Pacific of Canada. Traverses were conducted at 200 m line spacings, with a sample interval of 50 m.

Soil samples were collected from depths of 10 to 30 cm with a mattock and stored in Kraft paper bags. The "B" horizon was the horizon sought and sampled in all instances. Rock samples were taken when any type of mineralization was encountered.

The minus 80 mesh fraction of all samples was analyzed for Mo, Cu, Pb and Zn by Min-En Laboratories of North Vancouver, B.C.

Copper geochemistry defines an anomalous zone in the centre of the claim group on L8N, which is probably due to remobilization of copper surrounding a granodiorite plug found in that area. Other results - Mo, Pb, Zn, are inconclusive and are probably due to high background and small local concentrations.

SUMMARY AND CONCLUSIONS

The soil sampling indicates a zone of anomalous copper values in the central part of the grid area with values of over 100 ppm over an area of 1200 m by 300-400 m. Within this zone the area of greater than 200 ppm copper is 700 m by 100 m. The highest single sample was 1220 ppm. Results for molybdenum, lead, and zinc were not encouraging as uniformly low values were encountered throughout.

Additional profile sampling should be conducted in the central part of the copper anomaly to determine the strongest part of the anomaly and to determine to what extent accumulation has affected the results.

EVALUATION OF WORK

SOIL SAMPLING - A total of 390 samples were collected.

CLAIMS - Jim Group

WORK CONDUCTED - Grid soil sampling and prospecting.

DATES CONDUCTED - June 17,18,28,29,30.

SALARIES:

Bernard MacIsaac	5 mandays	@ \$55.55	=	\$ 277.75
Jan Visser	3 "	@ 40.00	=	120.00
Keith Thompson	3 "	@ 47.50	=	142.50
Samy Antoun	4 "	@ 47.50	=	190.00
Paul Petropoulos	3 "	@ 40.00	=	120.00
Rudy Strobl	3 "	@ 40.00	=	120.00
Kenneth Johnson	<u>2</u> "	@ 40.00	=	<u>80.00</u>
Total	23			\$1,050.25

MEALS: 23 mandays at \$15.00/manday = 345.00

TRANSPORTATION:

1 truck @ \$34.60/day x 5 days =	\$173.00	
1 truck @ \$25.58/day x 5 days =	<u>127.90</u>	
	300.90	
Helicopter 1.8 hrs @ \$407.91/hr.	<u>734.24</u>	1,035.14

MISCELLANEOUS: radio rental 40.00

TOTAL \$2,470.39

ASSAY CHARGES:

390 samples analyzed for Mo,Cu,Pb,Zn @ \$4.60/sample	TOTAL	\$1,794.00
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CREDIT TO JIM GROUP

Work done	-	\$2,470.39
Assay charges	-	1,794.00
Cost of report preparation	-	<u>200.00</u>
TOTAL		\$4,464.39

APPENDIX I

FEE SCHEDULE

Geochemical analyses were done by

Min-En Laboratories Ltd.
705 West 15th Street
North Vancouver, B.C.
V7M 1T2

Geochemical Analyses:

Mo, Cu, Pb, Zn	\$4.00
Sample preparation	<u>.60</u>
Total per sample	\$4.60

*MIN-EN Laboratories Ltd.**Specialists in Mineral Environments*Corner 15th Street and Bewicke
705 WEST 15th STREET
NORTH VANCOUVER, B.C.
CANADAANALYTICAL PROCEDURE REPORTS FOR ASSESSMENT WORKPROCEDURES FOR Mo, Cu, Cd, Pb, Mn, Ni, Ag, Zn, As, F

Samples are processed by Min-En Laboratories Ltd., at 705 W. 15th St., North Vancouver Laboratory employing the following procedures.

After drying the samples at 95°C soil and stream sediment samples are screened by 80 mesh sieve to obtain the minus 80 mesh fraction for analysis. The rock samples are crushed by a jaw crusher and pulverized by ceramic plated pulverizer.

1.0 gram of the samples are digested for 6 hours with HNO_3 and HClO_4 mixture.

After cooling samples are diluted to standard volume. The solutions are analyzed by Atomic Absorption Spectrophotometers.

Copper, Lead, Zinc, Silver, Cadmium, Cobalt, Nickel and Manganese are analysed using the CH_2H_2 -Air flame combination but the Molybdenum determination is carried out by C_2H_2 - N_2O gas mixture directly or indirectly (depending on the sensitivity and detection limit required) on these sample solutions.

For Arsenic analysis a suitable aliquote is taken from the above 1 gram sample solution and the test is carried out by Gutzit method using $\text{Ag CS}_2\text{N} (\text{C}_2\text{H}_5)_2$ as a reagent. The detection limit obtained is 1.2 ppm.

Fluorine analysis is carried out on a 200 milligram sample. After fusion and suitable dilutions the fluoride ion concentration in rocks or soil samples are measured quantitatively by using fluorine specific ion electrode. Detection limit of this test is 10 ppm F.

APPENDIX III

NAMES AND ADDRESSES OF PERSONS CONDUCTING WORK

Bernard MacIsaac	112 Sherwood Avenue Toronto, Ontario M4P 2A9
Keith Thompson	36 New Street S.E. Calgary, Alberta T2G 3X9
Samy Antoun	8830 Aeterna Street St. Leonard, Quebec H1P 2R9
Paul Petropoulos	11411 Southdale Cl., S.W. Calgary, Alberta T2W 2N3
John Visser	355 Parkview Cres., S.E. Calgary, Alberta T2J 4N8
Rudy Strobl	R.R. #1, Drayton Road Sioux Lookout, Ontario P0V 2T0
Kenneth Johnson	232 Ford Boulevard Windsor, Ontario N8S 2E5

APPENDIX IV

TRANSPORTATION UNIT COSTS

Helicopter

Bell 206B Casual basis Okanagan Helicopters
Nelson, B.C.

Casual cost	\$380.00	per hour
Fuel and oil	<u>27.91</u>	" "
Total	\$407.91	per hour

Trucks

Rented from Rentway Canada Ltd., Burnaby, B.C.

	<u>1980 Suburban</u>	<u>1980 Blazer</u>
Contract cost per day	\$31.03	\$22.01
Fuel cost per day (50 km/day, 3.5 km/litre, \$0.25/litre)	<u>3.57</u>	<u>3.57</u>
Total Cost Per Day	\$34.60	\$25.58

APPENDIX V

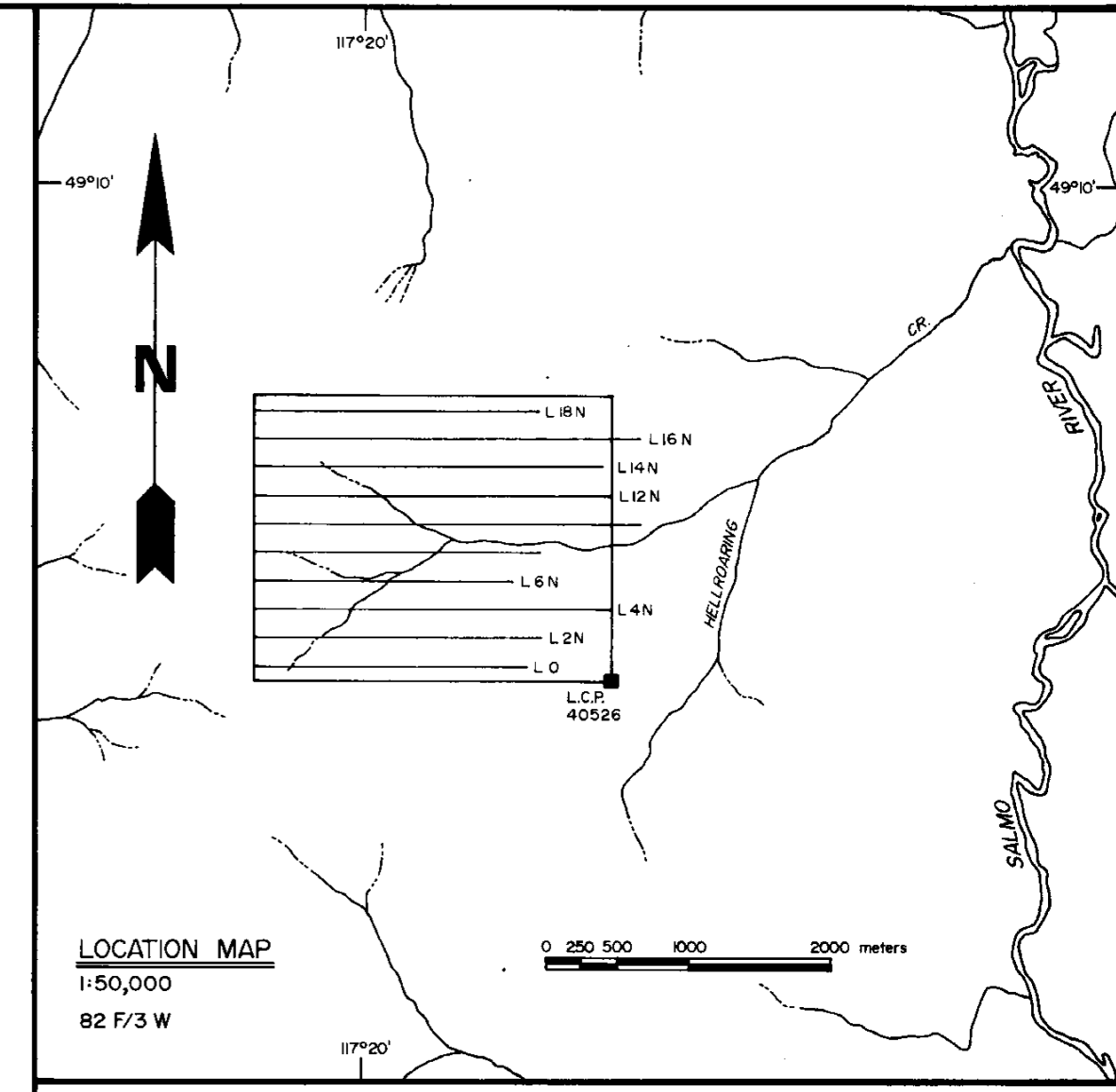
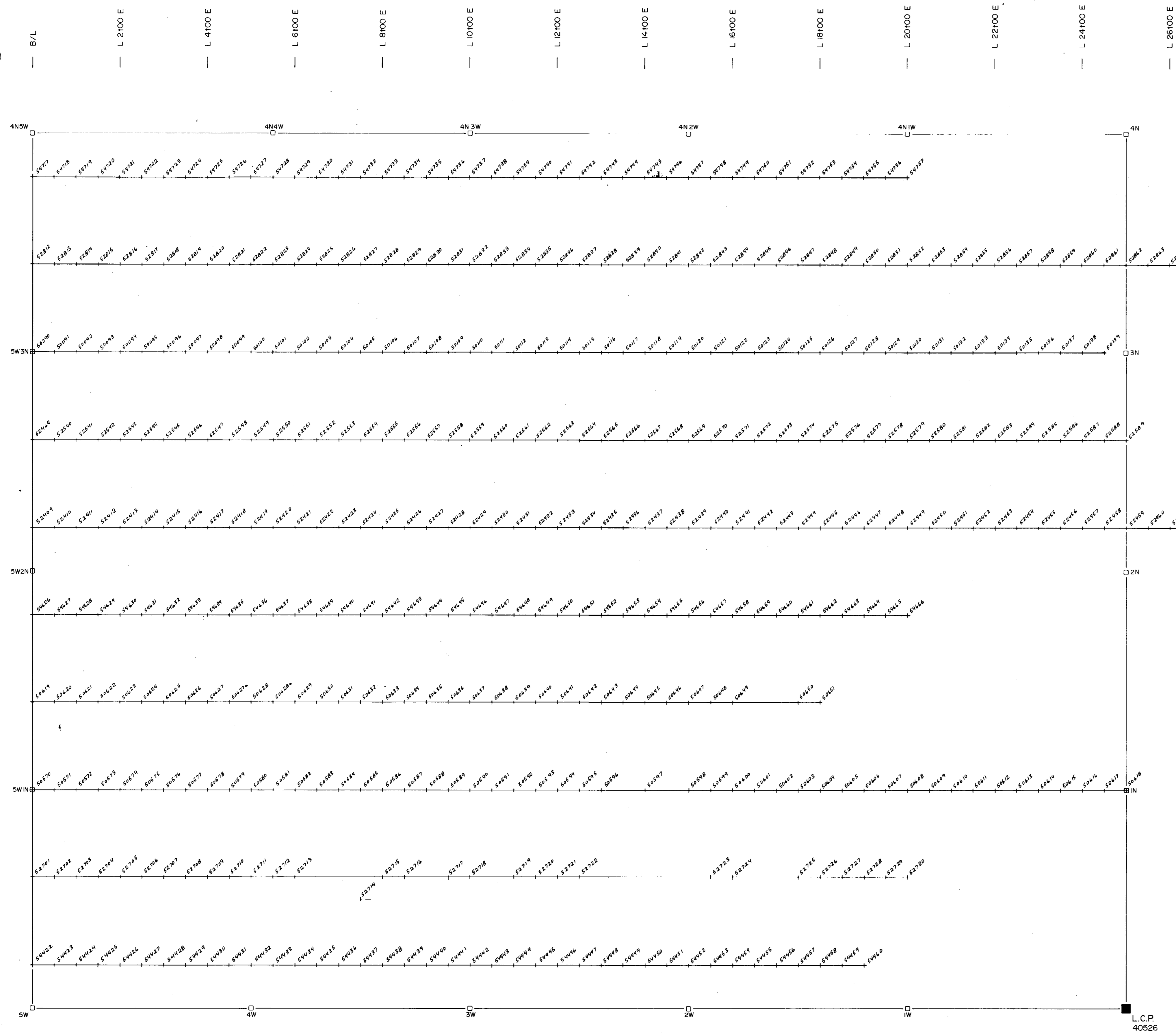
QUALIFICATIONS OF B. MacISAAC

B.Sc. Geology Major, St. Francis Xavier University,
Nova Scotia, 1977.

I have been employed by Amoco Canada Petroleum
Company Ltd. continuously since 1977, working
in both eastern and western Canada, in mineral
exploration.


B. MacIsaac, B.Sc.

Vancouver, B.C.
July 1980



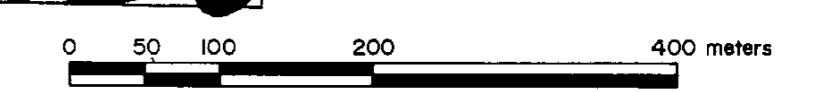
LOCATION MAP
1:50,000
82 F/3 W

LEGEND:

- 54719 — SOIL SAMPLE LOCATION
- L.C.P. — LEGAL CLAIM POST

NOTE:
CLAIM POSTS AND BOUNDARY ESTABLISHED BY
PACE AND COMPASS METHODS.

MINERAL RESOURCES DIVISION
ASSESSMENT REPORT
8258



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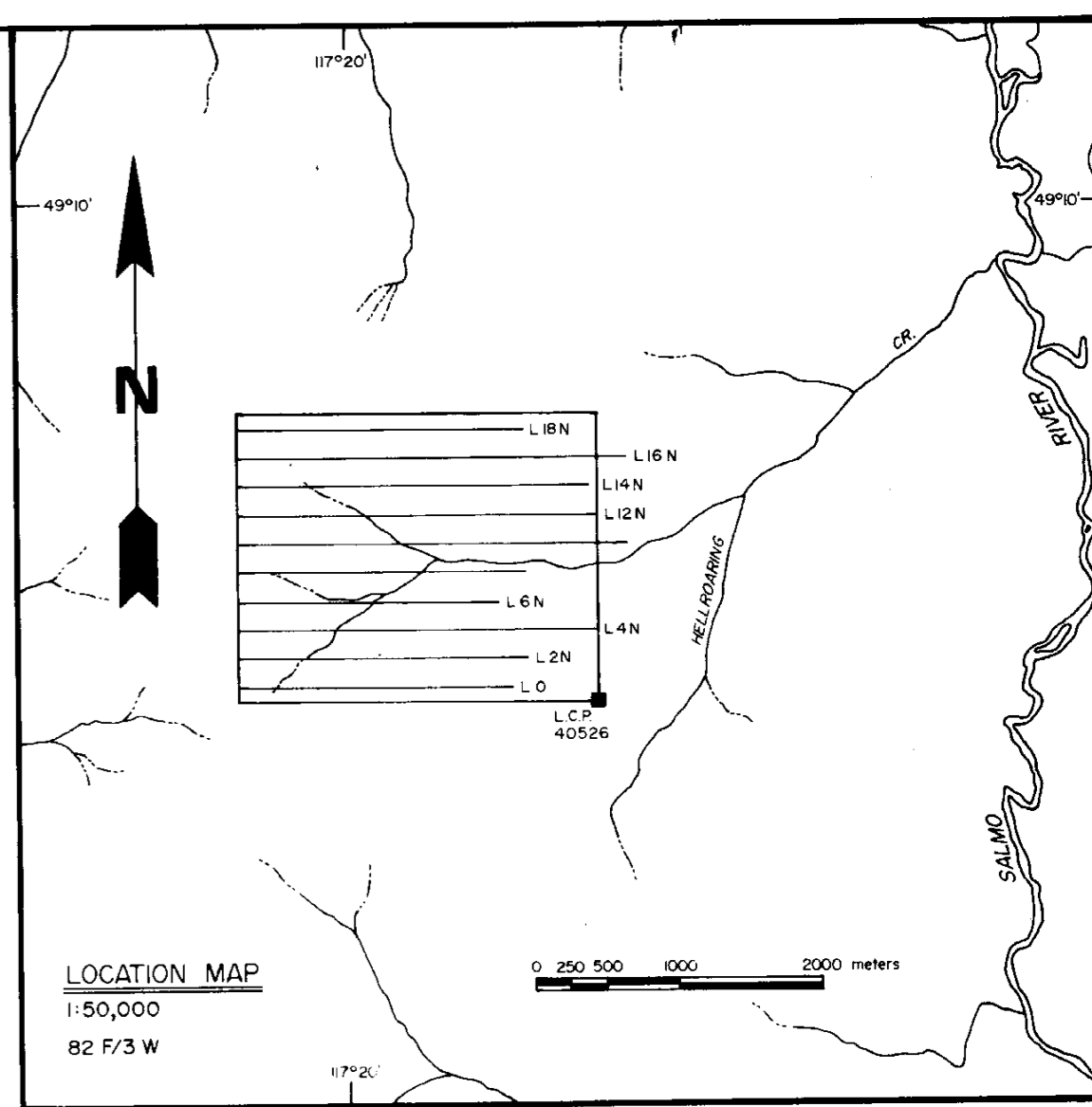
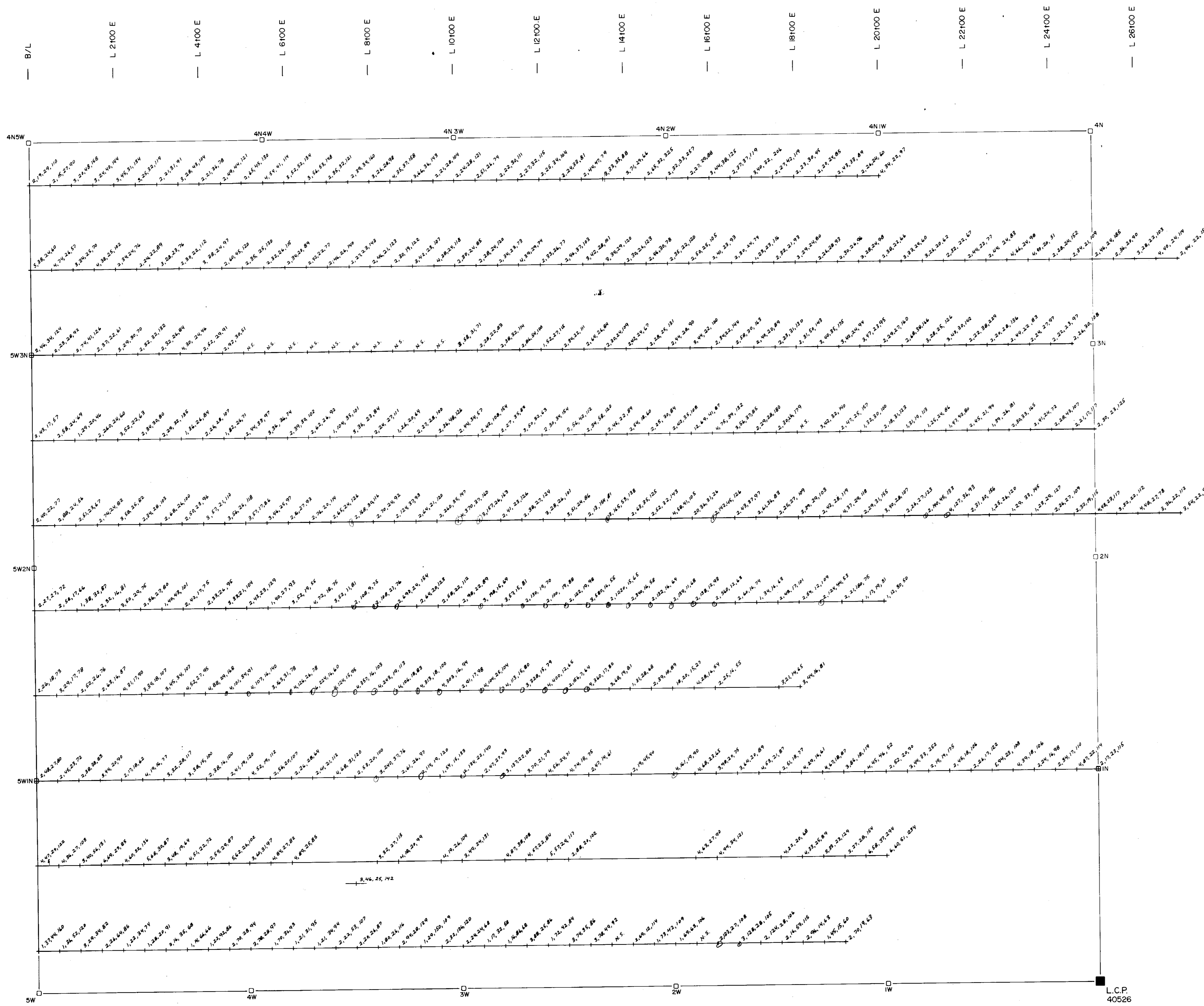
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NELSON PROJECT

SAMPLE LOCATION MAP

JIM GROUP, 82 F/3 W

Drawn By	R. IVANY	Scale	1:5,000
Date		Project No.	79C-003



LEGEND:

- ⊕ 4,63,27,90 — SOIL SAMPLE RESULT: Mo,Cu,Pb,Zn (ppm)
- L.C.P. — LEGAL CLAIM POST
- N.S. — NO SAMPLE

NOTE:
CLAIM POSTS AND BOUNDARY ESTABLISHED BY FACE AND COMPASS METHODS.

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
8258

0 50 100 200 400 meters

AMOCO CANADA PETROLEUM CO. LTD.
MINING DIVISION
NELSON PROJECT
GEOCHEMISTRY RESULTS
JIM GROUP, 82 F/3 W

Drawn By	R. IVANY	Scale	1:5,000
Date		Project No.	79C-003