

PAUL GROUP: SOIL GEOCHEMISTRY  
NELSON MINING DIVISION  
PAUL 1,2,3,4,5 and 6 (86 units)  
82F8

Owner/Operator

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

Report Written By:

Bernard MacIsaac  
September, 1980

8486

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(In folder)

## INTRODUCTION

The Paul Group consisting of Paul 1, 2, 3, 4, 5 and 6 comprises 86 contiguous units which are located 16 km. north of the town of Creston at the headwaters of Arrow Creek. The claim group is accessible by truck via the Arrow Creek road from the south and via a road from the east that joins the Goat River road at about mileage 9.5 km..

Amoco Canada Petroleum Company Ltd., Mining Division is the owner operator of the Paul 1,2,3,4,5 and 6 claims.

The reason for staking was a strong and quite extensive lead-zinc silt anomaly with Pb and Zn values up to 480 ppm and 2750 ppm respectively occurring in the upper portion of Arrow Creek.

The area of the anomaly is underlain by the Proterozoic Aldridge Formation of the Purcell Group. The formation consists of argillaceous quartzites and argillites.

Geochemical soil sampling has confirmed the presence of anomalous concentrations of lead and zinc particularly in the vicinity of the Paul 5 and 6 claims.

Paul Claim Group

	<u>Units</u>	<u>Tag No.</u>	<u>Date Staked</u>	<u>Anniversary Date</u>	<u>Record No.</u>
Paul 1	15		Oct.12/79	Oct. 12/80	
Paul 2	15		Oct.12/79	Oct. 12/80	
Paul 3	14		Oct.12/79	Oct. 12/80	
Paul 4	14		Oct. 12/79	Oct. 12/80	
Paul 5	14		Oct. 12/79	Oct. 12/80	
Paul 6	14		Oct. 12/79	Oct. 12/80	

GEOLOGY

The entire Paul Claim group is underlain by metasediments of the Proterozoic Aldridge Formation of the Purcell Group. This is the oldest formation known in the area. The Aldridge is composed mainly of grey to brownish grey argillite and argillaceous quartzite, the latter in beds generally about 30 cm. thick but in some places as much as 3 m thick. Rock exposure is restricted to higher portions of the valley wall on cliffs or on very steep slopes. The sequence of quartzites and argillites generally strike NNE-SSW, with dips usually steep to the west. Economic sulphide minerals were not recognized within the confines of the Paul Group.

SOIL GEOCHEMISTRY

During the periods July 3-17, August 10-14 and September 9th, 98 mandays were spent collecting 1003 soil samples along compass and pace lines designed to determine the cause and placement of a strong and extensive lead-zinc silt anomaly occurring in the upper portion of Arrow Creek.

Traverses were conducted at 200m line spacing with soil samples taken at 50m intervals. Soil samples were collected from depths of 10 cm to 30 cm with a mattock and stored in kraft paper bags with all pertinent data about the sample recorded. The B horizon was sampled in most instances.

Once the anomalous area was located soil profiles over this area were dug to confirm the anomaly.

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

## DISCUSSION OF RESULTS

Geochem results for Cu and Mo proved to be inconclusive. Isolated high values are randomly distributed throughout the sampled area.

Lead-zinc geochemistry defines an anomalous area approximately 250m by 1500m along the base line in the vicinity of Paul 5 and 6. Values of as high as 12,000 ppm Zn and 4229 Pb were encountered. Soil profiling confirmed the presence of the anomalous area.

Heavy quartz vein intrusion was noted in the area of the anomaly but no economically mineralized outcrops were seen.

EVALUATION OF WORK

Soil Sampling - A total of 1003 samples were collected

Claims - Paul 1, 2, 3, 4, 5, 6

Work Conducted - Grid soil sampling and prospecting

Dates Conducted - July 3 - July 17, August 10 - 14, September 9

## Salaries:

Bernard MacIsaac	14 mandays @ \$55.55	= \$777.70
Keith Thompson	19 mandays @ \$47.50	= \$902.50
Rudy Strobl	14 mandays @ \$40.00	= \$560.00
Paul Petropoulos	14 mandays @ \$40.00	= \$560.00
Jan Visser	19 mandays @ \$40.00	= \$760.00
Ken Johnson	14 mandays @ \$40.00	= \$560.00
Cris Olds	2 mandays @ \$40.00	= \$ 80.00
Sami Antoun	2 mandays @ \$47.50	= \$ 95.00

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Total = \$4295.20

Meals - 98 mandays @ \$15.00/manday = \$1470.00

## Transportation:

2 trucks @ \$65.28/day x 35 days	= \$2,284.80
Helicopter 3.0 hr. @ \$407.91 hr.	= \$1,223.73

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Total = \$9,273.73

## Assay Charges:

Samples analyzed for Mo, Pb, Zn, Cu @ \$4.60/sample x 1003 samples	= \$4,613.80
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Credit to Paul 1, 2, 3, 4, 5, 6 claims

Work done	=	\$9,273.73
Assay charges	=	4,613.80
Cost of Report Preparation	=	200.00

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\$14,087.53

APPORTIONMENT OF EXPENSES

Paul 1 and 2, Paul 3 and 4, Paul 5 and 6

Total No. Samples Paul 1, 2, 3, 4, 5 and 6 = 1003

Total No. Paul 1 and 2	=	335
Total No. Paul 3 and 4	=	420
Total No. Paul 5 and 6	=	248

Paul 1 and 2:	$335/1003 \times 14,087.53$	=	4,705.21
Paul 3 and 4:	$420/1003 \times 14,087.53$	=	4,899.06
Paul 5 and 6:	$248/1003 \times 14,087.53$	=	3,483.26

APPENDIX 1      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	\$ .60
	<hr/>
	\$4.60

APPENDIX II

*MIN-EN Laboratories Ltd.*

*Specialists in Mineral Environments*

Corner 15th Street and Bewicke  
705 WEST 15th STREET  
NORTH VANCOUVER, B.C.  
CANADA

ANALYTICAL PROCEDURE REPORTS FOR ASSESSMENT WORK

PROCEDURES FOR: Cu, Mo, Cd, Pb, Mn, Ni, Ag, Zn

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 jaw crusher and pulverized by ceramic plated pulverizer.

1.0 gram of the samples are digested for 6 hours with  $\text{HNO}_3$  and  $\text{HClO}_4$  mixture.

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

Copper, Lead, Zinc, Silver, Cadmium, Cobalt, Nickel and Manganese are analysed using the  $\text{CH}_2\text{H}_2$ -Air Flame combination but the Molybdenum determination is carried out by  $\text{C}_2\text{H}_2$ - $\text{N}_2\text{O}$  gas mixture directly or indirectly (depending on the sensitivity and detection limit required) on these sample solutions.

Background corrections for Pb, Ag, Cd upon request are completed.

APPENDIX 3

NAMES AND ADDRESSES OF PERSONS CONDUCTING WORK

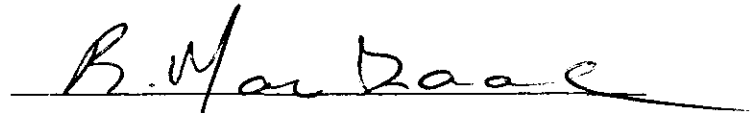
Bernard MacIsaac	112 Sherwood Avenue Toronto, Ontario M4P 2A9
Ken Thompson	36 New Street S.E. Calgary, Alberta
Rudy Strobl	R. R. #1 Draton Road Sioux Lookout, Ontario POV 2T0
Jan Visser	355 Parkview Crescent, S.E. Calgary, Alberta T2J 4N8
Paul Petropoulos	11411 Southdale Close S.W. Calgary, Alberta T2W 2N3
Samy Antoun	8830 Aeterna Street St. Leonard, Montreal Quebec H1V 2R9
Ken Johnson	232 Ford Boulevard Windsor, Ontario N8S 2E5
Kristopher Olds	#1606 - 1985 Woodway Place Burnaby, B.C. V5B 4T4



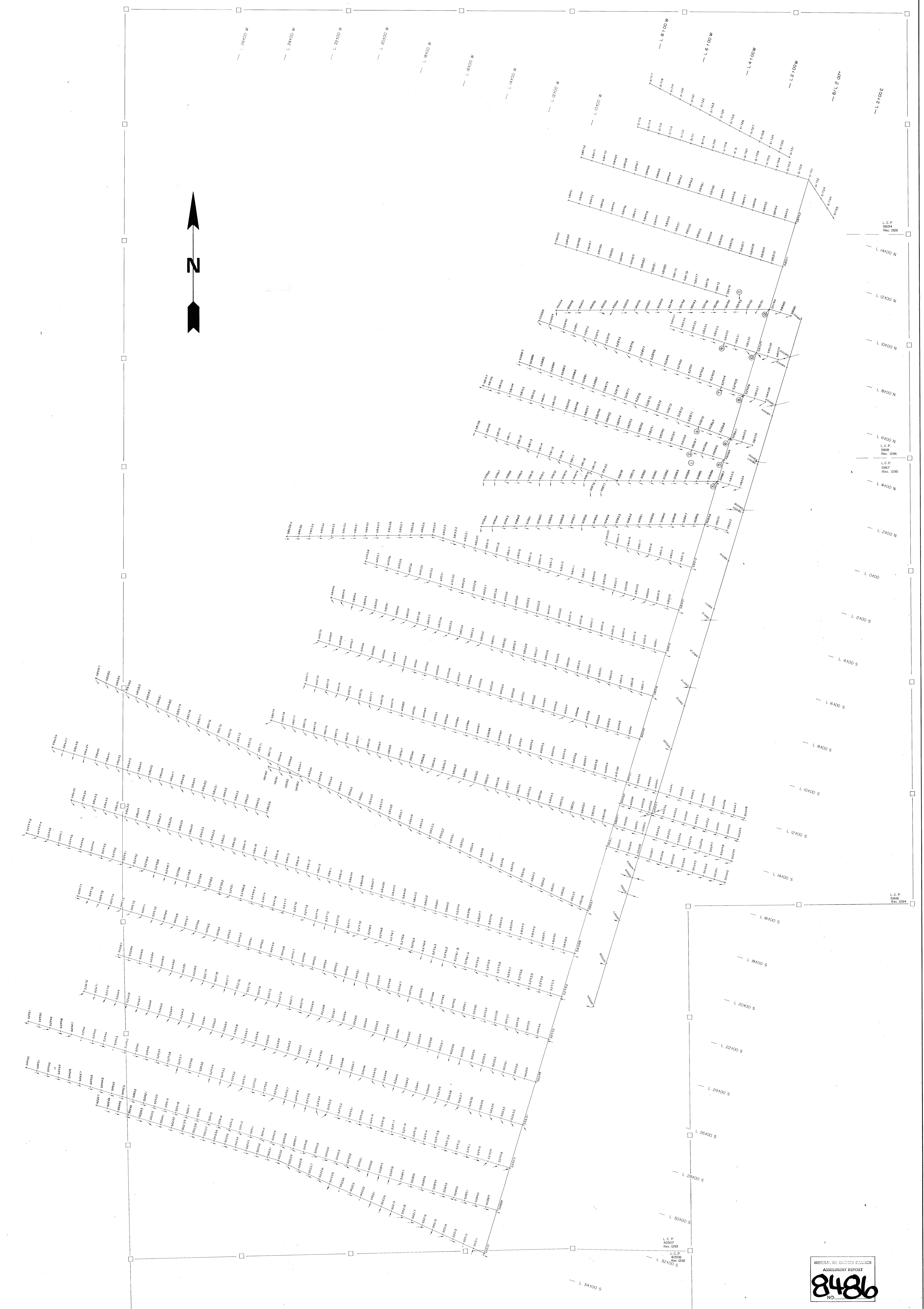
QUALIFICATIONS OF BERNARD MACISAAC

B.Sc. Major, St. Francis Xavier Univerity, Antigonish, Nova Scotia, Graduated 1977.

I have been working for Amoco Canada Petroleum Company Ltd. on various projects in Eastern and Western Canada since May, 1977.

A handwritten signature in cursive script, reading "B. MacIsaac", written over a horizontal line.

Bernard MacIsaac  
October 2, 1980



L.C.P. 3634  
Rec. 1206

L 14100 N  
L 12100 N  
L 10100 N  
L 8100 N  
L 6100 N  
L.C.P. 3685  
Rec. 006

L.C.P. 3687  
Rec. 1206

L 4100 N  
L 2100 N  
L 0100

L 2100 S  
L 4100 S  
L 6100 S  
L 8100 S  
L 10100 S  
L 12100 S  
L 14100 S

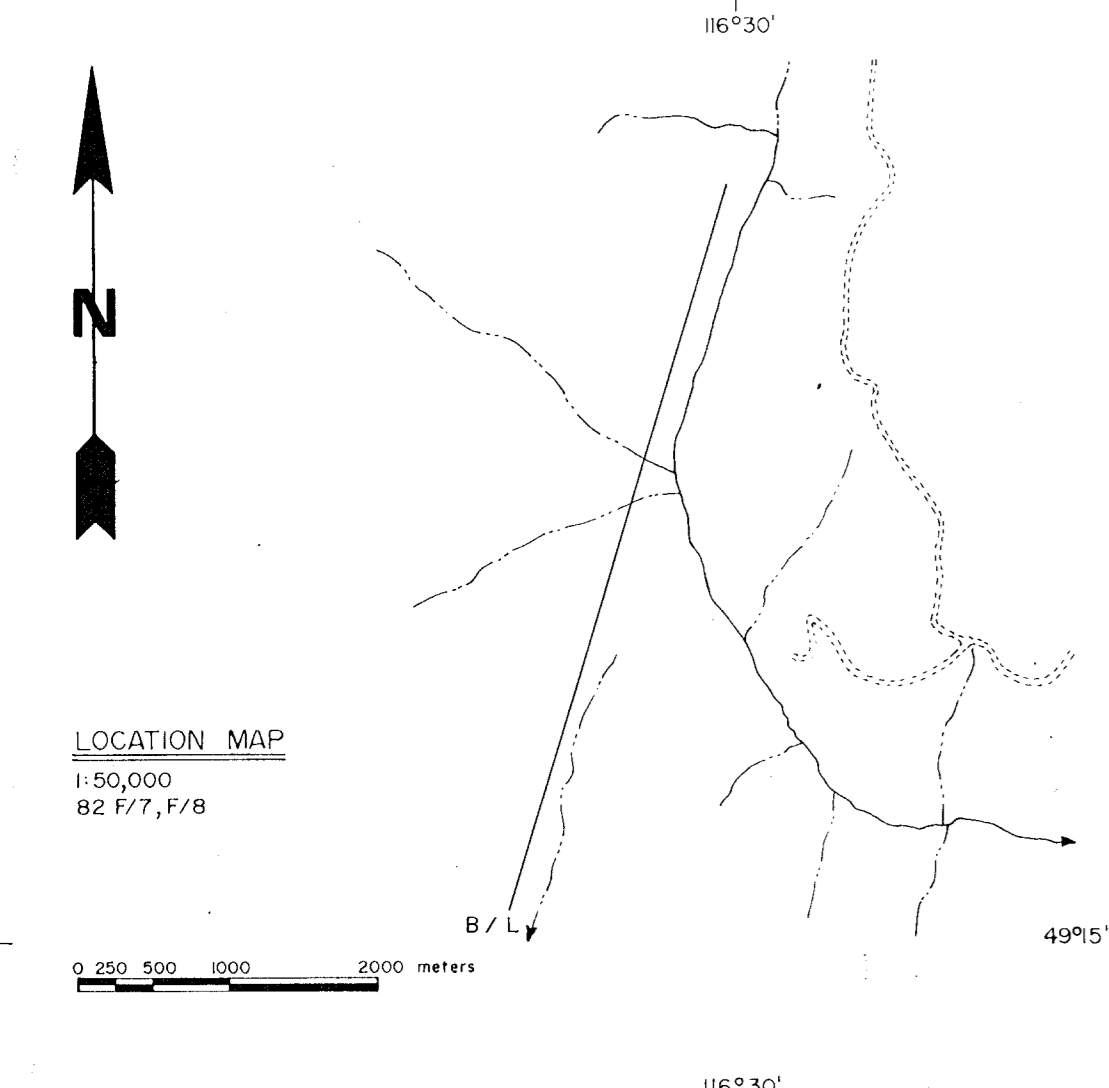
L.C.P. 3688  
Rec. 0294

L 16100 S  
L 18100 S  
L 20100 S  
L 22100 S  
L 24100 S  
L 26100 S  
L 28100 S  
L 30100 S  
L 32100 S

L.C.P. 4057  
Rec. 1208

L.C.P. 4208  
Rec. 002

MINERAL RESOURCES DIVISION  
ASSESSMENT REPORT  
**8486**  
NO.



**LEGEND**

— DIRECTION OF SLOPE

• SOIL SAMPLE LOCATION

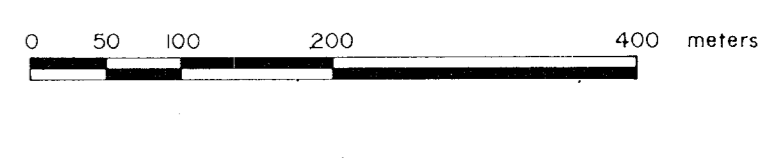
**SOIL PROFILES:**

HORIZON - Sample #

① B - 5865	③ B - 5863	⑩ B - 5867
B - 5864	B - 58630	B - 58608
B - 5863	B - 58629	B - 58605
C - 5862	C - 58628	C - 58604
② B - 5869	④ B - 5869	⑪ B - 5869
B - 5869	B - 58639	B - 58603
B - 5867	B - 58638	B - 58602
C - 5866	C - 58636	C - 58601
⑤ A - 5861	⑥ B - 5865	⑫ B - 5865
B - 5860	B - 58635	B - 58600
B - 58609	B - 58633	B - 58600
C - 58608	C - 58632	C - 58600
④ B - 5862	⑦ B - 5861	⑬ B - 5861
B - 58622	B - 58642	B - 58647
B - 58621	B - 58641	B - 58646
C - 58620	C - 58640	B - 58645
⑤ B - 58627	⑧ B - 5864	C - 58644
B - 58626	B - 58643	
B - 58625	B - 58642	
C - 58624	C - 58641	

NTS: 82F-7E-BW

**NOTE:**  
ALL LINES RUN BY PACE AND COMPASS METHODS.



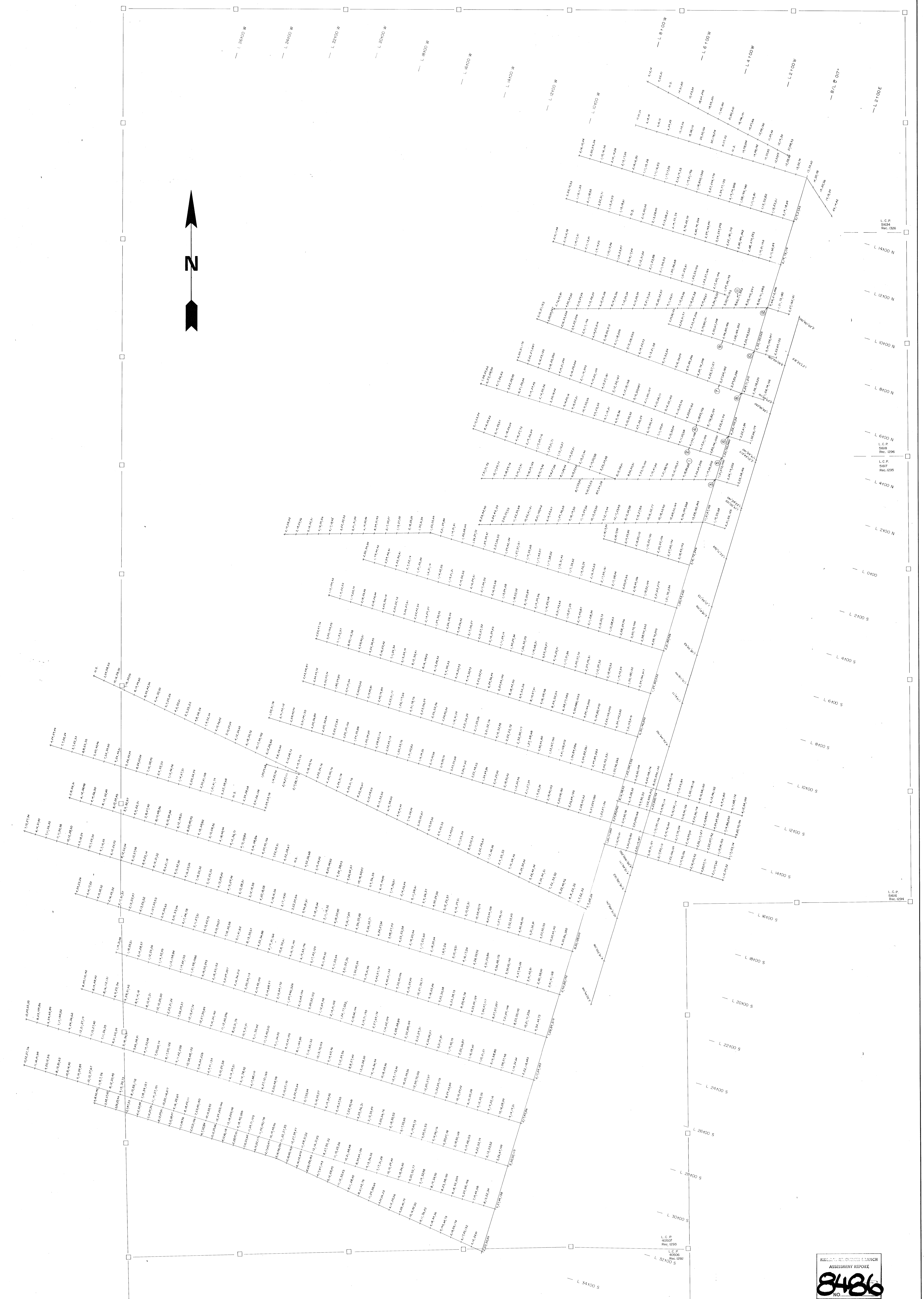
**AMOCO CANADA PETROLEUM CO. LTD.**  
MINING DIVISION

NELSON PROJECT

**SAMPLE LOCATION MAP**

NELSON GROUP

Drawn By	E.B. WYTRWAL	Scale	1:5,000
Date	OCT. 1980	Project NR	79C-003



L.C.P.  
5858  
Rec. 1296

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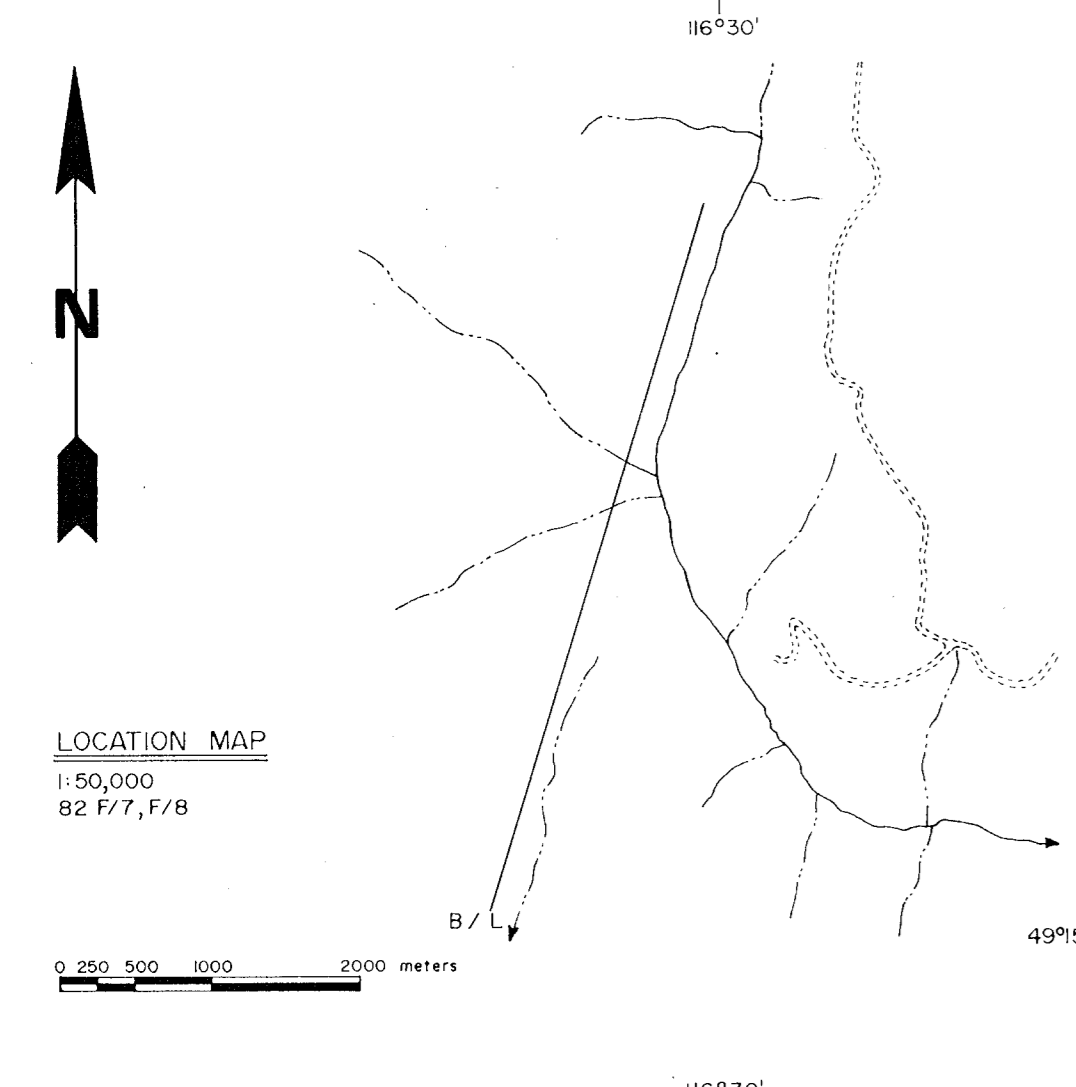
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Rec. 1296

L.C.P.  
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Rec. 1296

L.C.P.  
5858  
Rec. 1296

AMOCO CANADA PETROLEUM CO. LTD.  
ASSESSMENT REPORT  
**8486**  
NO.



**LEGEND**

| 2, 20, 30, 59 SOL SAMPLE RESULTS (Mo, Cu, Pb, Zn)

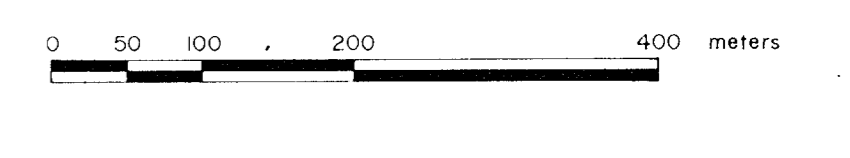
**SOL PROFILES:**

HORIZON - Soil sample results

① 2,19,45,173 2,15,48,330 1,31,1282 1,34,177,657	⑥ 5,29,173,296 2,30,272,595 2,33,367,708 1,35,148,414	⑩ 2,27,114,498 2,29,125,498 1,31,134,443 2,35,148,414
② 1,36,56,183 1,36,56,194 1,36,56,205 1,36,56,195	⑦ 2,26,55,170 2,33,70,134 2,37,70,288 1,36,56,395	⑭ 2,32,204,473 2,39,246,476 2,38,252,453 1,37,67,85,029
③ 2,16,337,720 2,27,381,948 2,34,422,440 2,19,10,300	⑧ 2,30,91,320 2,36,65,325 2,41,78,271 2,19,10,300	⑮ 2,34,422,440 2,36,65,325 2,41,78,271 2,19,10,300
④ 1,36,56,188 1,36,56,193 1,36,56,198 2,19,10,304	⑨ 2,34,422,440 2,36,65,325 2,41,78,271 2,19,10,304	⑯ 2,34,422,440 2,36,65,325 2,41,78,271 2,19,10,304
⑤ 2,23,430 2,31,424,700 2,34,422,440 2,19,10,304	⑰ 2,34,422,440 2,36,65,325 2,41,78,271 2,19,10,304	⑰ 2,34,422,440 2,36,65,325 2,41,78,271 2,19,10,304

NTS: 82F-7E-BW

**NOTE:**  
ALL LINES RUN BY PACE AND COMPASS METHODS.



**AMOCO CANADA PETROLEUM CO. LTD.**  
MINING DIVISION

NELSON PROJECT

**GEOCHEMISTRY RESULTS**

PAUL GROUP

Drawn By	E.B. WYTRWAL	Scale	1:50
Date	OCT. 1980	Project No.	7