

82 - 352 - 10547 H

SOIL SURVEY

ON

NICKEL #2 M.C.

~~030100S~~ M.D.
GREENWOOD

Map 8ZE/3 EAST

LONGITUDE $119^{\circ}05'$ to $119^{\circ}10'W$

LATITUDE $49^{\circ}01'$ to $49^{\circ}03'N$

AYEROK PETROLEUM LTD.

E. Livgard, B.Sc., P.Eng.
Livgard Consultants Ltd.
717; 837 West Hastings Street
Vancouver, B.C.
V6C 1B6

May 1982

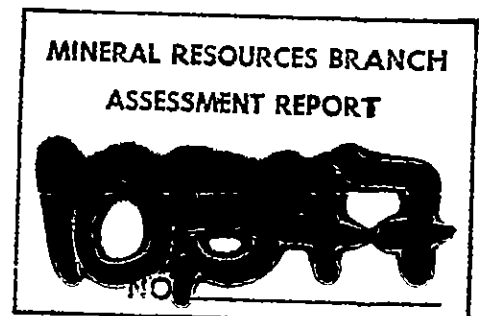


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MAP OF CLAIMS AND SURVEY AREA

MAP OF SAMPLE RESULTS



INTRODUCTION

A soil survey was carried out under the writer's supervision on a part of Nickel #2 M.C., during early April, 1982, at the request of Ayerok Petroleum Ltd. The objective of the survey was to examine if anomalous values of nickel in the soil previously discovered west of Buddy Creek extended east of the creek.

CONCLUSION

The anomalous nickel content of soils west of Buddy Creek discovered in a survey in June 1981 do not extend east of the creek.

PROPERTY

The property consists of the following contiguous claims:

	Rec. No.	Units
Nickel	1453	16
Nickel #2	1558	12
Nickel #3	1559	16
Nickel #4	1645	20
Nickel #5	1646	20
Nickel #6	1647	12
Nickel #7	1648	12
Nickel #8	1649	6

A total of 8 claims comprising 114 units.

LOCATION AND ACCESS

The property lies largely south of Highway 3 South and East of Bridesville, B.C. Part of the claims are north of the Highway to the north of Bridesville.

The claims in the ^{GREENWOOD} ~~Georges~~ Mining Division on Map Sheet M 82E/3 E. The longitude is from 119° 05' to 119° 10' W and the latitude is from 49° 01' to 49° 03' N. All the claims can be reached via farm and logging roads leading off highway #3. The access is generally very good but some of the farm roads are private and arrangement should always be made with the farmer for their use.

TOPOGRAPHY AND CLIMATE

The elevation of the claims is between about 3,000 and 4,200 feet above sea level. The topography is generally rolling hills of forest and grazing land. Approximately $\frac{1}{4}$ of the claim ground is cultivated farm land where mineral rights are not obtainable. The climate is typical southern interior at this elevation with long pleasant summers and short but fairly cold winters. Relatively small amounts of snow will cover the ground during January till March.

GEOLOGY

The claims cover metasediments named the Anarchist Group, of Permo-Triassic age.

The rocks consist of quartzites, quartisitic-feldspathic rocks, greenstones, graphitic quartzites and some dyked and pluggs of basic intrusive. The mineralization is stratigraphically controlled and is found in the quartzites and quartisitic-feldspathic rocks.

The known mineralization is found on the northern part of the Nickel Mining Claim. The rocks containing the minerals are about 120m thick and extent for about 1,500m in an overturned anticline. The mineralization consists of fine grained pyrrhotite and pyrite finely disseminated. The values are in Nickel (0.25%), Cobalt (0.03%), and minor Copper, Silver and Gold.

History

The property has been known since 1930, and has been staked several times. In 1965-66 Utica Mines Ltd., and Copper Ridge Mines carried out geological mapping, sampling, magnetometer survey and percussion drilling in the area of the main showings now covered by the northern part of the Nickel Mining Claim. The property was subsequently optioned to Newmont Mining Corp. The company carried out aerial magnetic surveys and also on the northern part of Nickel Mining Claim, detailed soil surveying. Five or six diamond drill holes were drilled to 400-500 feet. Mineralization was encountered over 280 to 420 feet in width.

Metallurgical studies were done.

Newmont concluded that open pit mining-milling and roast leaching was not economic on the property. Bio-leach tests were carried out to determine if heap-bio leach might be a feasible approach to treating the mineralization. The initial tests were favourable. The tests were not carried to a conclusion. Ayerok Petroleum Ltd., staked the claims in 1979 and have carried out electromagnetic and magnetic surveys over part of the claims. Further geological mapping was done in 1980.

SOIL SURVEY

Grid System

A grid system was established using a metric tape and a Suunto compass. The baseline was put in from near the centre of Nickel #2 and south for 500m. along and crossing Buddy Creek.

Survey lines were run east and west with a spacing of 100 m. The lines were measured and marked with blazes and red flagging. Station numbers were written on red flagging at each station. A total of 5.25 km. of line was marked and measured in this way.

Soil Sampling

It was established that a recognizable soil horizon existed in the survey area and a soil sample was taken from the B horizon at each station and on the baseline.

The sample stations were 50 m apart along the grid lines. The soil samples were placed in kraft paper bags which were marked with the station number.

ANOMALOUS CONDITIONS

In the previous survey carried out by the writer, west of the creek, the samples were analysed for nickel. The values were treated statistically and histograms constructed (value versus frequency). The histograms indicated that values of 38 to 65 parts per million for nickel were threshold values and values over 65 ppm were anomalous. This corresponds closely to that found during a soil survey by Newmont Mining Corp., on the northern part of Nickel M.C. in 1967.

The same anomalous values are assumed to hold true for the present survey. No anomalous nickel content in the soil was found east of Buddy Creek.

Soil Samples

The overburden in the Bridesville area included both residual and transported types. Fluvio-glacial features are topographically distinct along the length of the Rock Creek drainage and locally there are extensive and deep accumulations of this material. At higher elevations, particularly in areas of more rugged relief, the soils are dominantly residual and interspersed with only limited transported material.

In the area of the known nickel occurrences on the Nickel Mining Claim much of the fluvio-glacial material has been removed by recent erosion along the southern bank of Rock Creek. Patches of this glacially-derived overburden are still present and narrow terrace features are recognizable.

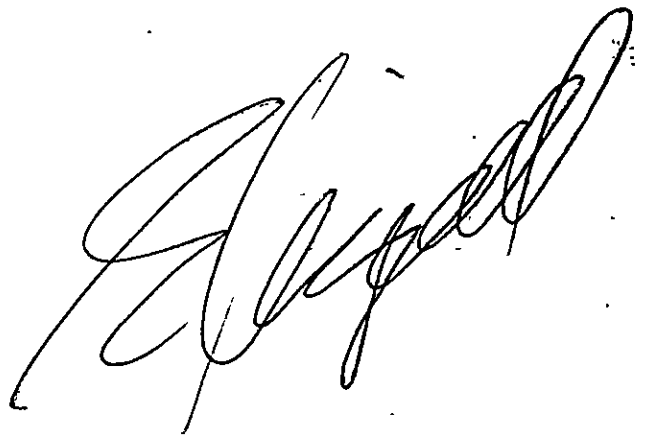
Despite the local accumulations of transported overburden, the anomalous nickel pattern obtained, clearly indicated the known occurrences of nickel in the bedrock, and the strike of the nickel anomalies agreed with the geological interpretation of favourable lithology and structure.

SAMPLE ANALYSIS

The samples were analysed by General Testing Laboratories in Vancouver.

The samples were dried and screened to minus 80 mesh. A one gram sample was taken. The samples were leached with Aqua Regia 10 mill nitric and 5 mill Hydrochloric almost to dryness and re-dissolved using 5% 20 mill Hydrochloric acid.

Analysis was made using Atomic Absorption Spectro Photometer.

A large, stylized handwritten signature in black ink, located in the lower right quadrant of the page. The signature is highly cursive and difficult to decipher, but appears to consist of several overlapping loops and lines.



TO:
 LIVGARD CONSULTANTS LTD.
 717 - 837 West Hastings St.,
 Vancouver, B.C.

General Testing Laboratories
 A Division of SGS Supervision Services Inc.

1001 EAST PENDER ST., VANCOUVER, B.C., CANADA, V6A 1W2
 PHONE (604) 254-1647 TELEX 04-507514 CABLE: SUPERVISE

CERTIFICATE OF ASSAY

No.: 8204-1950 DATE: April 28/82

We hereby certify that the following are the results of assays on: Soil samples

MARKED	XXXXXXXXXXXX				Nickel Ni (ppm)	XXXX	XXXX	XXXX	SAMPLE MARKED:	Nickel Ni (ppm)
<u>0+00S</u>									<u>2+00S</u>	
0+00 - E				17					0+00 - E	15
1+00				26					0+50	24
1+50				20					1+00	9
2+00				20					1+50	22
2+50				9					2+00	16
3+00				18					2+50	17
3+50				13					3+00	14
4+00				13					3+50	21
4+50				15					4+00	20
5+00				18					4+50	14
5+50				8					5+00	15
6+00				15					5+50	12
6+50				13					6+00	15
7+00				14					6+50	16
7+50				16					7+00	17
8+00 - E				11					7+50	16
									8+00	18
<u>1+00S</u>									8+50	16
0+00 - E				11					9+00 - E	19
0+50				21						
1+00				9					<u>3+00S</u>	
1+50				20					0+00 - E	14
2+00				12					0+50	15
2+50				12					1+00	16
3+00				17					1+50	15
3+50				23					2+00	19
4+00				15					2+50	45
4+50				15					3+00	26
5+00				19					3+50	22
5+50				11					4+00	14
6+00				17					4+50	14
6+50				20					5+00	14
7+00				15					5+50 - E	16
7+50				15						
8+00				18						
8+50				18						
9+00 - E				16						

/ Continued on page 2

NOTE. REJECTS RETAINED ONE MONTH. PULPS RETAINED THREE MONTHS ON REQUEST PULPS AND REJECTS WILL BE STORE FOR A MAXIMUM OF ONE YEAR

ALL REPORTS ARE THE CONFIDENTIAL PROPERTY OF CLIENTS. PUBLICATION OF STATEMENTS CONCLUSION OR EXTRACTS FROM OR REGARDING OUR REPORTS IN NOT PERMITTED WITHOUT OUR WRITTEN APPROVAL. ANY LIABILITY ATTACHED THERETO IS LIMITED TO THE FEE CHARGED

L. Wong
 PROVINCIAL ASSAYER

Analytical and Consulting Chemists, Bulk Cargo Specialists, Surveyors, Inspectors, Samplers, Weighers

MEMBER. American Society For Testing Materials • The American Oil Chemists Society • Canadian Testing Association
 REFEREE AND OR OFFICIAL CHEMISTS FOR: National Institute of Oilseed Products • The American Oil Chemists' Society
 OFFICIAL WEIGHMASTERS FOR: Vancouver Board Of Trade



TO:
LIVGARD CONSULTANTS LTD.

..... page 2

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MARKED	XXXXXXXXXXXX		Nickel	XXX	XXX	XXX	SAMPLE MARKED:	Nickel
			Ni (ppm)					Ni (ppm)
<u>3+00S</u>							<u>5+00S</u>	
6+00 - E			14				3+00 - E	18
6+50			20				3+50	16
7+00			16				4+00	19
7+50			19				4+50	22
8+00			26				5+00	18
8+50 - E			23				5+50	18
<u>4+00S</u>							6+00	14
0+00 - E			15				6+50	18
0+50			22				7+50	11
1+00			16				8+00	18
1+50			16				8+50	22
2+00			16				9+00 - E	16
2+50			29					
3+00			11					
3+50			15					
4+00			12					
4+50			15					
5+00			14					
5+50			15					
6+00			12					
6+50			16					
7+00			15					
7+50			11					
8+00			21					
8+50			17					
9+00 - E			16					
<u>5+00S</u>								
0+00 - E			18					
0+50			24					
1+00			17					
1+50			11					
2+00			13					
2+50 - E			14					

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OFFICIAL WEIGHMASTERS FOR: Vancouver Board Of Trade

COST DECLARATION

Accommodations	\$ 76.32	
Meals	27.35	
Groceries	<u>48.50</u>	
Gas	59.00	
Supplies	37.07	
Truck Rental	105.00	
Assaying	327.00	
Drafting	80.00	
Typing	<u>35.00</u>	\$ 795.24
Soil Survey 5 km. @ \$275.00/km Contract		1375.00
Supervision and Report		
2 days @ \$300.00/day		600.00
Dispersments 5%		<u>30.00</u>
		\$ <u>2800.24</u>

PERSONAL

7 days - Bryan Livgard - Geol. Student - 5 season's experience
7 days - Paul Livgard - Geol. Student - 2 season's experience
2 days - E. Livgard - P.Eng. - Supervisor and report.

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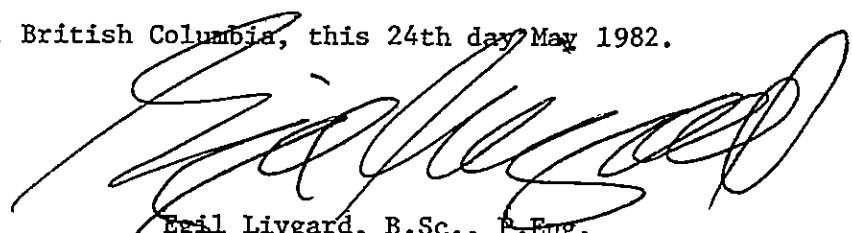
VANCOUVER, B.C.

CERTIFICATE

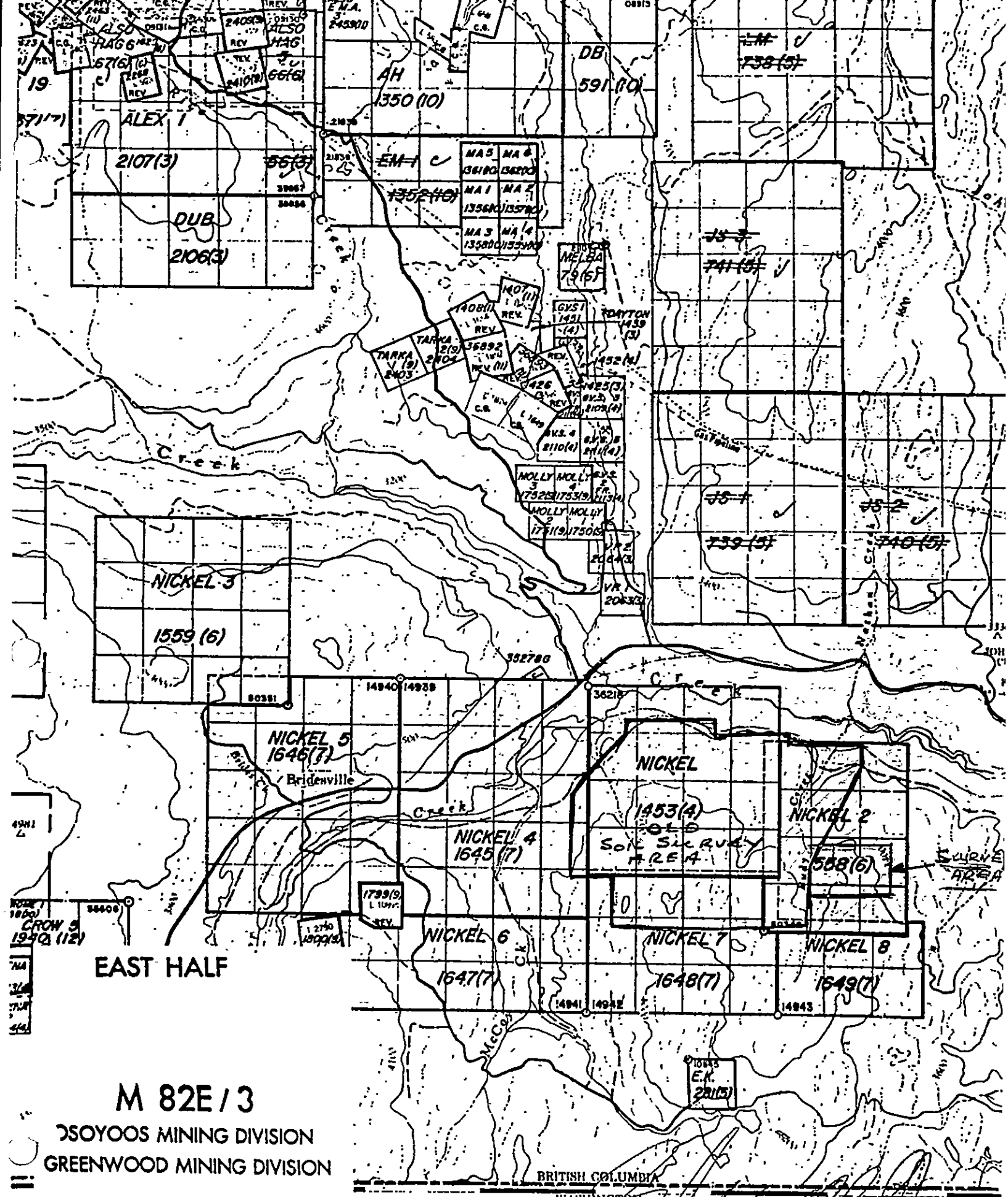
I, EGIL LIVGARD, of 1990 King Albert Avenue, Coquitlam,
British Columbia:

1. I am a consulting geological engineer.
2. I am a graduate of the University of British Columbia,
B.Sc., 1960.
3. I am a Member of the Association of Professional Engineers
of the Province of British Columbia.
4. From 1960 to 1970 I was engaged in mining and exploration
geology in Canada and Norway for various companies, and
since that time I have been a consultant to the Mining
Industry in B.C.
5. My report is based on the personal examination of the property
and on information compiled from materials as referred to in
the report.
6. I have a direct interest in Ayerok Petroleum Ltd. and I am
a Director of the Company.

DATED at Vancouver, British Columbia, this 24th day May 1982.



Egil Livgard, B.Sc., P.Eng.
Vancouver, B.C.



M 82E/3

SOYOOS MINING DIVISION
GREENWOOD MINING DIVISION

10'

BRITISH COLUMBIA

WASHINGTON

11/10/05



-2N

0+00

25

45

65

85

105

125

145

165

185

205

8W

6W

4W

2W

2E

4E

6E

8E

10E

12E

14E

16E

18E

20E

22E

NICKEL #4

LCP
NICKEL
1453 (4)

NICKEL #2
1558 (6)

BAKER CR

META-SED. BED

MINERALIZED
ULTRABASICS

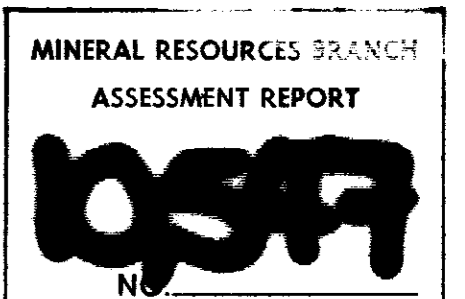
ROCK CREEK

RAILWAY ROAD

RAILWAY ROAD

BASE
LINE

RUDDY CREEK



SURVEY GRID
APRIL, 1982

Ni ppm
+38 ppm THRESHOLD
+65 ppm ANOMALOUS

AYEROK PETROLEUM LTD.

OLD NICK
NICKEL PROPERTY
ROCK CREEK, B.C.

SOIL GEOCHEMISTRY SURVEY

Ni ppm

metres 100 0 100 200 300 metres
1:5000

LIVGARD CONSULTANTS LTD

MAY, 1982

LCP
CLAIM POST
NICKEL #8
NICKEL #2

NICKEL #8

NICKEL #6

10W

8W

6W

4W

2W

2E

4E

6E

8E

10E

12E

14E

16E

18E

20E

22E