## GEOLOGICAL AND GEOCHEMICAL REPORT

85-716

138

## ON THE

# NITA CLAIM Kamloops Mining Division British Columbia

	Claim:	NITA	3822(9)	
Latitude:	50°42.5'N.		Longitude:	121°27'W.
	N.T.S	. 92I/	/11W.	

Owner:

DESPERADO RESOURCES INC. P.O. Box 12137 Nelson Square Suite 501-808 Nelson Street Vancouver, B.C. V6Z 2H2 (604) 684-7527

Operator:

DESPERADO RESOURCES INC. P.O. Box 12137 Nelson Square Suite 501-808 Nelson Street Vancouver, B.C. V6Z 2H2 (604) 684-7527

Consultant:

MINOREX CONSULTING LTD. 2391 Bossert Avenue Kamloops, B.C. V2B 4V6 (604) 376-828 ASSESSMENT REPORT

J.D. Blanchflower, F.G.A.C. Consulting Geologist

September 24, 1985

## TABLE OF CONTENTS

											Page No.
INTRODUCTION	• • • • • •	• • •	••		••	• •	• • •	• . •	• •	• •	. 1
SUMMARY	••••••		•••	••	• •	•••	•••	••	• •	• •	1
PROPERTY AND (	OWNERSHIP .	•••	•••	• •	•••	• •	• •	• •	• •	• .	4
LOCATION AND A	ACCESS	• • •	• •		• •	• •	• •	.••	• •	•. •	4
PHYSIOGRAPHY	• • • • • •	• • •	• •		•••		•••	• •	• •	• •	. 4
HISTORY		• • •			• •	• •	•••		•••		. 6
GEOLOGIC SETT	ING	• • •	••	• •	••	• •	•••	••	• •		7
Regional	Geology .		• •	• •	• •	.• •	•••	•••	••		. 7
1985 EXPLORAT	ION PROGRAM	• • •	• •	• •	•••		• •		• •	• •	10
Geologica	al Mapping	•••	• .•		••		• •	•••	•••	• •	. 10
Rock Geod	chemical Sam	pling	• •	. <i>.</i>		• •	• •	• •	• •		. 11
RESULTS OF THI	E 1985 EXPLO	RATION	PRC	GRAM	1.	• •	• •	•••		• •	. 11
Geologica	al Mapping	•••	• •	•••	• •	•••	• •	•••	• •		. 11
Rock Geod	chemical Sam	pling	••	•••	••			• •	•••		. 13
CONCLUSIONS	• • • • • •	••••		•••	••	• •	۰.		• •		. 13
RECOMMENDATION	NS	• • •	•••	• •	• . •	• •	• •		• •	• •	14
STATEMENTS OF	QUALIFICATI	ONS .	••	••	••	•••	•••	• •	• •	• •	. 15
STATEMENT OF (	COSTS	• • •	•••	• •	•••		••		• •	•	. 17
BIBLIOGRAPHY					••••		• •				. 19

## APPENDICES

APPENDIX I.	Kamloops Research and Assay Laboratory Ltd. Geochemical Lab Report
APPENDIX II.	Analytical Procedures for the Rock Geochemical Analyses
APPENDIX III.	Sample Descriptions and

Analytical Summaries

## LIST OF ILLUSTRATIONS

ALC: NO

Figure No.		Page No.
1	Location Map, $l'' = 64$ miles	2
2	Claim Map, 1:50,000	5
3	Regional Geology Map, 1:253,000	8
4	Geological and Geochemical Plan, 1:5,000	In Pocket

#### INTRODUCTION

Desperado Resources Inc. of Suite 501-808 Nelson Street, Vancouver, B.C. owns one 15-unit mineral claim situated in the Kamloops Mining Division, British Columbia. This report, prepared at the request of the directors of Desperado Resources Inc., describes the 1985 exploration program which included geological mapping at a scale of 1:5,000 and rock geochemical sampling.

The purpose of this year's work was to evaluate the exploration potential of the whole property, beyond the limits of previous exploration. This assessment work was undertaken between September 10th and 24th, 1985.

#### SUMMARY

The property is comprised of the 15-unit NITA mining claim. It is situated 1 kilometre northeast of the Cornwall Hills' fire lookout, or approximately 10 kilometres west of the town of Ashcroft, B.C. The geographic coordinates are 50°42.5'N. latitude by 121°27'W. longitude (N.T.S. 921/11W).

Vehicular access is possible via Highway 1 south for 8 kilometres from the Highway-1 Ashcroft junction to the Oregon Jack Creek road; thence west and northward to Cornwall Hills and then on to the property.

The property is situated within relatively steep terrain, on the northeastern slopes of Cornwall Hills. Elevations range from 4,800 to 6,200 feet A.M.S.L.

In 1969 and 1970 Lone Creek Mines Ltd. carried out geological and geochemical surveys in the vicinity of a known aeromagnetic anomaly. Six trenches were later excavated to explore the area now covered by the subject claim. Desperado Resources Inc. carried out a limited soil geochemical survey in 1984 but their work did not test the whole property until this year.



The property lies regionally within the Intermontane Belt. West of the Thompson River, most of the region is underlain by Mississippian to Triassic-age eugeosynclinal strata on the periphery of the Karnian-age Guichon Creek batholith.

Results of the 1985 exploration program show that the property is underlain by a stock of dioritic composition, probably of Upper Triassic age. Metasediments of the Mississippian to Triassic-age Cache Creek Group underlie the extreme southwestern corner of the claim where they have been intruded by the stock. Microfractures with minor quartz and pyrite veining reflect a fracture zone which crosses the central portion of the property from Medicine Creek valley southeastward to the 3 South identification post. Possibly anomalous gold-in-soil geochemical targets from the 1984 program occur sporatically along this fracture trend. None of the analytical results from fifteen rock geochemical samples collected during this year's program indicated above-background precious- or base-metal mineralization.

It is the writer's opinion that the results to date do not warrant further exploration.

#### PROPERTY AND OWNERSHIP

The property is comprised of one 15-unit M.G.S. mineral claim, situated in the Kamloops Mining Division of southcentral British Columbia. The location and configuration of this claim is shown on Figures 1 and 2, respectively. The following table summarizes all pertinent claim data.

<u>Claim Name</u>	Record No.	Туре	Units	Record Date	Owner	
NITA	3822	M.G.S.	15	Sept. 24/81	Desperado Res.	Inc.

The claim is wholly owned and operated by Desperado Resources Inc. of Vancouver, B.C.

#### LOCATION AND ACCESS

The NITA claim is situated 1 kilometre northeast of the Cornwall Hills' fire lookout or approximately 10 kilometres west of the town of Ashcroft in southcentral British Columbia. Its geographic coordinates are 50°42.5'N. latitude by 121°27'W. longitude (N.T.S. 92I/11W).

Vehicle access is possible via Highway 1 south from the town of Cache Creek to the Oregon Jack road; thence west and northward on the gravel forestry lookout road to Cornwall Hills and the property. The gravel road crosses the property diagonally near the claim's legal corner post, then leads down the hill northeastward, eventually terminating back at the town of Cache Creek.

#### PHYSIOGRAPHY

The property is situated on the northeastern slopes of Cornwall Hills, approximately 8 kilometres west of the Thompson River. The terrain varies from gentle to very steep. Reliefs are high along



the eastern boundary of the claim (see Figure 2). Elevations vary from 4,800 to 6,200 feet A.M.S.L.

The climate of the region is relatively dry with precipitation usually totalling 180 to 250 mm. annually and snowfalls are generally 100 to 150 cm. in higher elevations. Temperatures range between -10 to +30°C. The exploration season extends from May to November.

The area is forested with hemlock, fir, and jackpine with little undergrowth at higher elevations.

The property is moderately exposed; especially well along its eastern boundary.

#### HISTORY

Most of the region has undergone intermittent exploration since the gold rushes of the late 1800's. The most intense exploration activity took place during the late 1960's and early 1970's when numerous major and junior resource companies explored the nearby Guichon batholith and its margins for porphyry copper-molybdenum deposits.

The Red Hill copper deposit, situated immediately southeast of the subject claim, has received most of the exploration attention since it is underlain by a very large and prominent gossan zone. This deposit has been tested in the past for its porphyry copper potential but recently Selco (BP Resources) has been successfully exploring it for gold and silver-bearing massive sulphide mineralization. The adjoining ADD and MOLY claims, covering the eastern portion of the Red Hill deposit, are owned by Rea Gold Corporation and under option to Selco (BP Canada).

According to S.F. Kelly (1982), "The earliest recorded exploration work on the property was carried out in 1969 and 1970 by Lone Creek Mines Ltd. The work was initiated to investigate the cause of a strong anomaly identified in an aeromagnetic survey carried out by the Geological Survey of Canada between 1966 and 1968. Geological and geochemical surveys were carried out by Lone Creek Mines Ltd., and six trenches excavated to investigate anomalies resulting from them."

In 1983 Mr. L. Lorange of Kamloops, B.C. established a 12-kilometre survey control grid in the northeastern portion of the claim, between the 1 South by 0 West and 3 South by 2 West identification posts. A soil geochemical survey of the control grid area was carried out in 1984 by Boa Services Ltd., on behalf of Desperado Resources Inc. Results of this exploration work were negative, and it was proposed by the writer that the rest of the property should be evaluated prior to extending the detailed surveying.

#### GEOLOGIC SETTING

Regional Geology

This region lies within the Intermontane Belt of the Canadian Cordillera. West of the Thompson River most of the region is underlain by the Pennsylvanian to Permian-age Cache Creek Group. This group is conformably overlain to the west by limestone of the Permian-age Marble Canyon Formation. The stratigraphic contact between these two major formations trends north-northwesterly through the NITA claim.

The Cache Creek Group comprises volcanic sediments, greenstones and rare, thin lenses of limestone. The rocks are generally quite massive, propylitically altered and bedding is usually indiscernible. The volcanic sediments include conglomerate, grit, wacke and tuff. Regional bedding within this group commonly strikes north to north-northwesterly and dips -55° to -75° westerly (Carr, 1962).

The Marble Canyon Formation is comprised principally of limestone with a minor chert and/or detrital sediment component.

Structural features of the region include a number of periods of faulting and uplift. During Upper Triassic time a



#### LEGEND

0 \_

#### (After Duffell and McTaggart, 1951)

#### CENOZOIC

TERTIARY

Miocene or Earlier Kamloops Group

24

Basalt, andesite, and rhyolite; associated tuffs and breccias.

Andesite, dacite, basalt, and rhyolite; tuff, breccia,

and agglomerate; conglomerate, sandstone, greywacke, and arkose.

23 Coldwater Beds (?): Sandstone, shale, and conglomerate; coal.

MESOZOIC

CRETACEOUS Lower Cretaceous Spences Bridge Group

18

JURASSIC Middle and Upper Jurassic

12 Shale, conglomerate and sandstone.

TRIASSIC

Upper Triassic Nicola Group

11 Basalt and andesite; tuff and agglomerate; limestone, quartzite, argillite, greywacke and arkose.

#### PALAEOZOIC

6

1

PERMIAN AND (?) EARLIER Cache Creek Group

Marble Canyon Formation: limestone.

5 Greenstone: chert, argillite, minor limestone and quartzite: chlorite and quartz-mica schist.

#### INTRUSIVE ROCKS

MESOZOIC

TRIASSIC

Upper Triassic

Guichon Creek batholith: granite, granodiorite, quartz diorite, diorite.

major fault zone along the Thompson River valley produced a horstgraben setting which uplifted the land mass east of the valley during the intrusion of the Guichon batholith. Later during post-Jurassic time there was more tilting and faulting prior to the extrusion of Tertiary volcanics.

In strata throughout the region, folding is subordinate to tilting, warping and faulting. Where folds occur they are small and appear to be caused by fault movement (Carr, 1962).

There are several precious and/or base-metal occurrences known in the region. Many of these occurrences are spatially related to brecciated and altered fault zones, clearly vein or replacement deposits; however, in light of recent exploration activity the region may have potential for syngenetic polymetallic deposits. See Figure 3 for a map of the regional geology.

#### 1985 EXPLORATION PROGRAM

Since last year's soil geochemical survey had tested only a small portion of the property it was proposed that reconnaissance geological mapping and rock geochemical sampling should be undertaken to evaluate the rest of the claim.

The geological and geochemical surveys were carried out between September 10th and 15th, 1985. Mr. Paul Chung, an experienced geologist, aided by Mr. Tom Robinson, an experienced geological assistant, mapped and sampled most of the claim during a 5-day period.

#### Geological Mapping

Chain and compass traverses were run across the property using, in part, the existing grid for ground control. Geologic data was plotted on a 1:5,000-scale drafted enlargement of the published 1:50,000 topographic map N.T.S. 92I/11W.

Geologic mapping was carried out at a scale of 1:5,000 and it covered an area of 3.0 square kilometres. Mr. Chung made field notes on the observed lithology, structure, alteration and mineralization at each outcrop. This data was later plotted and drafted as Figure 4.

Rock Geochemical Sampling

Fifteen samples were collected during the program from favourable geologic targets. These samples were bagged, labelled and delivered to Kamloops Research and Assay Laboratory Ltd. in Kamloops, B.C. for analysis. All samples were analysed for gold, silver, copper, lead and zinc under the supervision of professional assayers. See Appendix I for the Geochemical Lab Report and Figure 4 for the plotted sample locations and analytical results. Sample descriptions and analytical summaries accompany this report in Appendix III.

RESULTS OF THE 1985 EXPLORATION PROGRAM

The results of this exploration work are not encouraging.

Geological Mapping

a) Lithology

This property is dominantly underlain by an intrusive stock of dioritic composition. This stock may be an apophysis of the Upper Triassic-age Guichon Creek batholith, and thus, has been temporally correlated with the latter. In the extreme southwestern corner of the claim metasedimentary rocks of the Mississippian to Triassic(?)age Cache Creek Group have been intruded by the dioritic stock. The older country rocks include: limestone, quartzite, siltstone, chert and greenstone.

Within the diorite intrusion there are local occurrences of altered amphibolite and serpentinite. The ultramafic members were probably derived from a basic phase of the intrusion prior to deformation and low-grade metamorphism. These units appear to occur rather sporatically throughout the property, although one has the impression that they may be spatially associated with inferred southeast fracturing from the northwestern corner of the claim to the 3 South identification post (see Figure 4).

The internal structure of the Cache Creek metasediments is vague, especially near the intrusive contact. Geological results suggest that the sedimentary rocks strike north-northwesterly and dip moderately westward.

The mapped units within the property have been described and correlated on Figure 4.

#### 2) Structure

Within the established grid area most of the intrusive rocks are fractured with a dominant southeasterly-trending fracture pattern. This fracture set probably reflects regional faulting southeasterly across the property from the Medicine Creek valley. Quartz and minor pyrite veinlets preferentially infill this dominant fracture set.

Other than the above fracture pattern and the indistinct bedding features within the sedimentary rocks there is little structural data of exploration interest. The structural setting appears relatively simple.

#### 3) Alteration

Along the intrusive contact the country rocks have been metasomatized and altered with local concentrations of quartz, epidote, chlorite, calcite and minor pyrite.

As previously mentioned, within the dioritic stock the ultramafics unit have been propyllitically altered and/or serpentinized. This alteration may be structurally related to postintrusive fracturing and late-stage saussuritization.

4) Mineralization

Pyrite, as fine-grained disseminations and/or fracture fillings, occurs sporadically throughout the property. Often pyrite is associated with very fine fracture-controlled veinlets of quartz. It is also hosted by the metasediments along the intrusive contact.

Given the coincidence of the aeromagnetic anomaly with the mapped exposures of serpentinite in the central portion of the property, there may be significant magnetite mineralization in the vicinity. However, the soil geochemical results (Chung, 1984) do not indicate that any economic mineralization is associated with either the more pyritic or magnetic intrusive members.

Rock Geochemical Sampling

The results of the fifteen rock geochemical samples have been plotted on Figure 4. None of the analytical results indicate significant precious- or base-metal mineralization. The highest copper value was received from sample 85-22-15 - less than 0.5 p.p.b. gold, less than 0.1 p.p.m. silver, 81 p.p.m. copper, 9 p.p.m. lead and 24 p.p.m. zinc.

#### CONCLUSIONS

The geological and lithogeochemical surveys were successful in identifying the local geologic setting. However, from an exploration basis the results are not encouraging.

If the company wishes to continue exploring the claim, the writer suggests that further efforts be concentrated along the southeasterly-trending Medicine Creek fracture zone since the highest gold-in-soil geochemical values appear to be spatially related to its trend.

#### RECOMMENDATIONS

Based on the above results and conclusions it is the writer's opinion that this property does not warrant further exploration. If, however, the company wishes to test the above referenced Medicine Creek fracture zone then the following program should be conducted.

- Expand the existing grid towards the northwestern corner of the claim.
- Collect soil geochemical samples from the expanded survey control grid.
- 3) Any geochemical anomalies should be trenched, surveyed, mapped and sampled to define their source.

Submitted by,

MINOREX CONSULTING LTD.

anch flower

J.D. Blanchflower, F.G.A.C. Geologist

September 24, 1985 Kamloops, B.C.

#### STATEMENT OF QUALIFICATIONS

I, J. DOUGLAS BLANCHFLOWER, of the City of Kamloops, Province of British Columbia, DO HEREBY CERTIFY THAT:

- 1) I am a Consulting Geologist with business office at 2391 Bossert Avenue, Kamloops, British Columbia, V2B 4V6; and President of Minorex Consulting Ltd.
- 2) I am a graduate in geology with a Bachelor of Science, Honours Geology degree from the University of British Columbia in 1971.
- 3) I am a Fellow of the Geological Association of Canada.
- 4) I have practised my profession as a geologist for the past fourteen years.

Pre-Graduate experience in Geology - Geochemistry - Geophysics in British Columbia, Yukon and Northwest Territories (1966 to 1970).

Three years as Geologist with the B.C. Ministry of Energy, Mines and Petroleum Resources (1970 to 1972).

Seven years as Exploration Geologist with Canadian Superior Exploration Limited (1972 to 1980).

Three years as Exploration Geologist with Sulpetro Minerals Limited (1980 to 1982).

Three years as Consulting Geologist with Minorex Consulting Ltd.

Active exploration and development experience in Western North America.

- 5) This report is based on geological and geochemical surveys undertaken on the property between September 10 and 15, 1985; and on available published reports and maps.
- 6) I own no direct, indirect or contingent interest in any of the subject properties, nor shares in or securities of DESPERADO RESOURCES INC.
- 7) I consent to the use of this report in a Prospectus or Statement of Material Facts.

anch

J.D. Blanchflower, F.G.A.C.

Dated at Kamloops, British Columbia, this 24th day of September, 1985.

#### CERTIFICATE

I, Paul P.L. Chung, of the City of Richmond, Province of British Columbia, DO HEREBY CERTIFY THAT:

- (1) I am a Consulting Geologist with business address office at 2020 No. 4 Road, British Columbia, V6X 2L3; and President of Boa Services Ltd.
- (2) I am a graduate in geology with a Bachelor of Science (Major: Geology) degree from the University of British Columbia, in 1981
- (3) I have practised my profession as a geologist for the past four years

Pre-graduate experience in Geology - Geochemistry in British Columbia and Yukon (1979-1980).

Two years as Exploration Geologist with Sulpetro Minerals Limited (1981-1982).

Two years as Consultig Geologist (1983 to present).

- (4) I conducted and supervised the geological mapping program on the NITA claims during the period of September 10 to September 15, 1985.
- (5) I own no interest in the subject claim, nor shares or securities of Desperado Resources Inc., nor do I expect to recieve any such interest.

Chung

Paul P.L. Chung Dated at Richmond, British Columbia, this 24th day of September, 1985.

#### STATEMENT OF COSTS

Re: Preparation of a 1:5,000-scale base plan from an enlargement of the published 1:50,000 topographic map.

Geological mapping at a scale of 1:2,500, covering an area of 3.0 square kilometres.

Collection of fifteen rock geochemical samples.

Analysis of the fifteen rock geochemical samples for gold (p.p.b.), silver (p.p.m.), copper (p.p.m.), lead (p.p.m.) and zinc (p.p.m.) at Kamloops Research & Assay Laboratory Ltd. in Kamloops, B.C.

Collation, interpretation and documentation of all resultant data from the 1985 exploration program.

A) Field Expenses for the Period of September 10th to 15th.

1) Personnel

2)

3)

4)

\$ 300.00	
1,140.00	
750.00	
\$2,190.00	\$2,190.00
\$ 17.50	
63.00	
25.00	
20.00	
v)	
200.00	
\$325.50	325.50
	176.60
\$176 60	
150.00	
	<pre>\$ 300.00 1,140.00 <u>750.00</u> \$2,190.00 \$17.50 63.00 25.00 20.00 y) <u>200.00</u> \$325.50 \$176.60 150.00</pre>

\$326.60

326.60

- 17 -

5) Expendable Field Supplies

	6 rolls of topo thread @ \$4.10/roll 2 rolls of flagging @ \$1.25/roll 20 sample bags @ \$.25/bag Pencils, pens, paper Motorcycle gas	\$24.60 2.50 5.00 2.90 <u>12.50</u> \$47.50 <u>47.50</u>
	Total	Field Expenses \$3,066.20
B)	Office Expenses for the Period of Se	eptember 16th to 24th.
1)	Analyses (Kamloops Research & Assa	y Laboratory Ltd.)
	15 rock samples for Au, Ag, Cu, Pb,	Zn @ \$13.10/s. \$ 196.50
2)	Report and Map Preparation	
	a) J.D. Blanchflower - geologist Sept. 16 to 24 - report writ: 4 days @ \$300./day	ing \$1,200.00
,	b) Drafting (T.P. Quinn) 25 hrs. @ \$15./hr.	375.00
	c) Typing (J & L Enterprises) 10 hrs. @ \$18./hr.	180.00
	d) Office Expenses Telephone charges (on client's behalf) Total Office	101.36   8.59   \$1,864.95   \$2,061.45
	Total Cost of 1985 Exploration	che on Program <u>\$5,127.65</u>

To be applied as follows:

C	ost of the 198	35 Exploration	Program	m	\$5,127.65
W	itnorawal from	n operator's P	'.A.C. A	ccount	\$6,027.65
Claim Name	Record No.	Record Date	Units	Years Applied	
NITA	3822	Sept. 24/81	15	2	\$6,000.00

Panch flower

September 24, 1985 Kamloops, B.C.

J.D. Blanchflower, F.G.A.C. Geologist

#### BIBLIOGRAPHY

Carr, J.M. (1962): The Geology of Part of the Thompson River Valley between Ashcroft and Spences Bridge; B.C. Minister of Mines Annual Report, 1962, pp. 28-45.

> Geochemical Report on the NITA Property, Kamloops Mining Division, B.C.; assessment report for Desperado Resources Inc.

Duffell, S. and : McTaggart, K.C. (1951)

Chung, P.P.L. (1984):

Kelly, S.F. (1982):

B.C. Ministry of Mines:

Ashcroft Map-Area, B.C. G.S.C. Map 1010A.

Report on the NITA Claim, Kamloops Mining Division, B.C.; private report to Desperado Resources Inc.

Minfile 0921/NW.

## APPENDIX I

Kamloops Research and Assay Laboratory Ltd. Geochemical Lab Report

&

KAMLDOPS RESEARCH B.C. CERTIFIED ASSAYERS 

ASSAY LABORATORY LTD.

912 LAVAL CRESCENT PHONE 372-2784 - TELEX 048-8320

GEOCHEMICAL LAB REPORT

MINOREX CONSULTING LTD 2391 BOSSERT AVE KAMLOOPS B C V28 4V6

DATE SEPT 23 1985 FILE NO. G 1388

KRA	_ NO.	IDENTIFICATION	AU	ZN	CU	AG	PAGE 1 PB	/ 1
	1	85-22-01	3.0	31.0	35.0	0.0	21.0	
	3	85-22-02	3.0	16.0	15.0	Ō, Ŏ	18.0	
	З	85-22-03	3.0	7.0	1.0	0.0	33.O	
	4	85-22-04	З.О	62.0	52.0	0, 0	21.0	
	5	85-22-05	З.О	28.0	9.0	0.0	20.0	
	6	85-22-06	З.О	35.0	29.0	0.0	16.0	
$\langle \rangle$	7	85-22-07	3.0	29.0	50.0	0.0	10.0	
k /	8	85-22-08	3.0	41.0	46.0	O, O	11.0	
· · · · ·	9	85-22-09	3.0	37.0	35.0	Ø. O	12.0	
	10	85-22-10	з.о	25.0	58.O	0. Ŭ	5.0	
	11	85-22-11	З.О	25.0	17.0	0.0	18.0	
	12	85-22-12	з.о	21.0	48.0	0.0	8.0	
	13	85-22-13	3.0	25.0	5.0	Ο.Ο	15.0	
	14	85-22-14	з.о	29.0	70.0	0.0	20.0	
	15	85-22-15	3.0	24.0	81.0	0.0	9.0	

IN

IN AU COLUMN 3 INDICATES (5 PPB

IN AG COLUMN 0.0 INDICATES (0.1 PPM

AU METHOD FIRE ASSAY ATOMIC ABSORPTION

ZN CU AG PB METHOD HOT ACID EXTRACTION ATOMIC ABSORPTION

## APPENDIX II

Analytical Procedures

for

Rock Geochemical Analyses

#### GEOCHEMICAL ANALYSIS

#### Gold Method

- a) The samples are dried in a geochemical drying oven and then crushed to pass through a stainless steel 100 mesh sieve. The minus 100 fraction is reserved for analysis and the plus 100 mesh fraction is stored.
- b) 29.17 grams of sample are weighed, silver added, along with fluxes and the sample is started as a fire assay. After cupellation the bead is dissolved and the samples are then mixed to ensure homogeneity and are read, upon settling, on a Varian Techtron AA 5 or 475 atomic absorption spectrophotometer using an air-acetylene flame.
- c) All additions of liquid reagents are from Oxford Model S-A pipettors.

### GEOCHEMICAL ANALYSIS

#### Silver, Copper, Lead and Zinc Method

- a) The samples are dried in a geochemical drying oven and then crushed to pass through a stainless steel 100 mesh sieve. The minus 100 fraction is reserved for analysis and the plus 100 mesh fraction is stored.
- b) The samples are then weighed into test tubes, nitric acid is added, and they are placed in a hot water bath for thirty minutes. Hydrochloric acid is then added and the samples are digested for a further 90 minutes in the water bath. The samples are then diluted with deionized water.
- c) The samples are then mixed to ensure homogeneity and are read, upon settling, on a Varian Techtron AA 5 or 475 atomic absorption spectrophotometer. An air-acetylene flame is used for the analysis of silver, copper, lead and zinc.
- d) All additions of reagents are from Oxford Model S-A pipettors.
- e) Standards and re-assay checks are carried along with each run of 35 samples.

## APPENDIX III

Sample Descriptions

and

Analytical Summaries

## APPENDIX III

Sample Descriptions and Analyt	icai	Summaries
--------------------------------	------	-----------

					Analysis			
Sample	Loca	tion	Au	Ag	Cu	Pb	Zn	Description
No.	Northing	Easting	p.p.b.	p.p.m.	<u>p.p.m.</u>	<u>p.p.m.</u>	<u>p.p.m.</u>	
85-22-1	10960	9635	L5	L.1	35	21	31	Dark green, fine-grained diorite with minor Qz veinlets. Limonitic.
85-22-2	11000	9530	L5	L.1	15	18	16	Grab sample across serpentinite-diorite contact. Limonitic with no sulphides.
85-22-3	8513	8975	L5	L.1	1	33	7	Light brown, rusty Limestone. No visible sulphides.
85-22-4	8975	9446	L5	L.1	52	21	62	Brown, coarse-grained diorite in contact with serpentinite.
85-22-5	8960	9430	L5	L.1	9	20	28	Serpentinite, at contact with diorite. No visible sulphides.
85-22-6	9012	9395	L5	L.1	29	16	35	Greenstone - very fractured and limonitic. No sulphides.
85-22-7	10733	9175	L5	L.1	50	10	29	Dark green, fine-grained diorite. Limonitic.
85-22-8	10640	10160	L5	L.1	46	11	41	Hematitic diorite with minor quartz-pyrite veinlets.
85-22-9	10689	10300	L5	L.1	35	12	37	Medium-grained diorite with numerous calcite veinlets and f.g. pyrite diss'ns.
85-22-10	10300	10305	L5	L.1	58	5	25	Medium-grained diorite with quartz veining up to 0.5 cm. wide. Limonitic.
85-22-11	10295	10080	L5	L.1	17	18	25	Serpentinite - very jarositic.
85-22-12	9861	8970	L5	L.1	48	8	21	Chip sample of fresh, medium-grained diorite with f.g. pyrite diss'ns. ( $\sim 1\%$ ).

## APPENDIX III

				Sample	Descript	ions and	d Analyti	cal Summaries
					Analysis			
Sample No.	Loca Northing	tion Easting	Au p.p.b.	Ag p.p.m.	Cu p.p.m.	Pb p.p.m.	Zn p.p.m.	Description
85-22-13	9558	9462	L5	L.1	5	15	25	Chip sample of green amphibolite with $\sim$ 1% magnetite.
85-22-14	10007	10305	L5	L.1	70	20	29	Green, m.g. diorite with 1% pyrite diss'ns.
85-22-15	10090	10064	L5	L.1	81	9	24	Limonitic, m.g. diorite with quartz fracture fillings.

