GEOLOGICAL, GEOPHYSICAL
and
GEOCHEMICAL REPORT
on the
BOG # 1 PROPERTY

Located in the Kamloops Mining Division
at CO-ORDINATES
120° 27'N 51° 02'W

BY
G. Owsianicki, B.Sc.
Noranda Exploration Company, Limited
(no personal liability)

June 1981
N.T.S. 92P/1W
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INTRODUCTION

The Bog #1 Property is comprised of the Bog #1 claim. The claim was staked by Ivor Saunders, Lorne Warner, Tom Lewis and Bob Forman. During the period May 1, to June 16, 1981 an assessment program involving geologic mapping, line cutting, soil sampling and magnetic surveying was completed on the claim.

Current interest is focused on an anomalous molybdenum value picked up on a regional silt sampling program. The anomalous value occurs in a graphitic phyllite of Pennsylvanian and Permian age. No mineralization was noted during geologic mapping.

During May 1981, a control grid was established with 100 metre line spacings. Soils were taken over the entire grid at 50 metre intervals. In addition, a magnetometer survey was performed. Noranda Exploration personnel put in the grid and performed all other work.

LOCATION AND ACCESS

The Bog #1 Property is centered on co-ordinates 51°01.5'N and 120°24.5'W on N.T.S. map sheet 92P/1W. This point is 60 km at 352° (true) from the City of Kamloops, B.C.

Access to the property is by truck from the paved Westsyde Road to the Jamieson Creek turnoff where a network of logging roads leads to the heart of the property.

TOPOGRAPHY, VEGETATION AND CLIMATE

The claim is located in the Bob Creek Valley. Terrain varies from steeply sloping sidehills to steep cliffs and plateau-like swamps. Elevations are in the range of 1,500m to 1,700m ASL.

Vegetation consists of mature stands of spruce and pine with open highland meadows.

Climate is that of the Interior Rain Belt with temperatures ranging between 3° C to 20° C.

CLAIM STATISTICS

The claims are in the Kamloops Mining Division of British Columbia. The Bog #1 claim was staked in 1981 by personnel of Noranda Exploration Company, Limited (no personal liability).
FIGURE 1

BOG PROPERTY

DGW. BY  DATE  JUNE 1981
N.T.S. 92P/1W  SCALE 1:50,000
NORANDA EXPLORATION CO., LTD.
Claim Statistics Cont'd

<table>
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<th>CLAIM</th>
<th>RECORD NUMBER</th>
<th>RECORD DATE</th>
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<tbody>
<tr>
<td>BOG #1 (16 units)</td>
<td>2651</td>
<td>June 16, 1981</td>
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CONTROL GRID

The Bog Property control grid was established during June of 1981, using a Silva compass and a top-o-fil unit. The 100+00E baseline was established using a transit set at a bearing of 360° (true). The baseline originated at station 100+00N, 100+00E, at a point a few metres south of the intersection of Bob Creek and one of its tributaries. From station 100+00N, 100+00E, the northerly portion of the baseline was put in by Silva compass and a metric chain.

Cross-lines were turned-off using a Silva compass at 100 metre intervals at 90° to the baseline on LINES 91+00N to 100+00N, and every 200 metres beginning on LINE 100+00N to 110+00N. The baseline extends from L91+00N to L110+00N. The cross-lines extend from 95+00E to 105+00E on LINES 91+00N to 99+00N, but have been lengthened to 90+00E and 110+00E on LINES 100+00N to 110+00N.

All lines have been flagged and stations established every 25 metres using felt pen on teflon tags. A total of 22.9 line kilometres have been flagged and stations established on the Bog Property.

GEOLOGY

The Bog Property consists of three distinct rock units varying from Tertiary to Pennsylvanian and Permian in age. These rocks have limited outcrop, confined mainly to the eroded stream cuts and the eastern portion of the control grid. The rocks consist of fine-grained green-black basalts to greenish andesites, a graphitic phyllite and a feldspar porphyry intrusive.

The mafic volcanics do not show noticeable textural variation and have been classified as one rock unit. The graphitic phyllite tends to be highly fractured and fissile in some localities, with specks of pyrite visible in outcrop. It contains quartz lenses which vary in size from 50cm to 10cm in length. Graphite rims the lenses. The phyllite is not as graphitic rich in the southern portion of the grid and begins to take on the appearance of a dark grey-black coloured sediment.

Intruding the volcanic and phyllite units is a small feldspar porphyry plug. Vertical jointing at 003° was noted. The plug is a light greyish-black colour with round, white feldspar phenocrysts in a finer grained matrix.
INDEX MAP

Showing the General
Location of
BOG #1 MINERAL CLAIM

KAHLOOPS
MINING DIVISION
JUNE 1981

FIGURE 2

BOG PROPERTY

DWG. BY

DATE JUNE 1981

N.T.S. 92P/1W

SCALE 1:250,000

NORANDA EXPLORATION CO., LTD.
The size of the phenocrysts varies from 10mm to 2mm. The unit weathers to a mottled grey-white colour. No mineralization was noted at the contact of the plug with the phyllite.

Magnetic highs were recorded on the western portion of the grid and can be attributed to the mafic volcanics which tend to be iron enriched and slightly magnetic in hand specimen.

GEOPHYSICAL SURVEYS

Introduction

A magnetometer survey was carried out over the grid on the Bog Property. L. Lyons, an employee of Noranda Exploration Company, Limited operated the magnetometer.

MAGNETOMETER SURVEY

Introduction

The magnetometer used was a Scintrex Model MF-2, manufactured by Scintrex of Concord, Ontario. Readings of the relative vertical component of the magnetic field (in gammas) were recorded at 25 metre intervals for a total of 22.9 line kilometres.

Field Procedure

Initial readings were recorded along the base line and at base camp to establish a series of base stations. During the course of the survey, readings were recorded at these base stations.

The differences of these readings were calibrated over the total survey, and corrections were made to obtain the final reading.

The day to day variations of the magnetic intensity were removed in this process.

Presentation of Results

The survey results are plotted on a contoured grid plan map at a scale of 1:5,000, (dwg. No. 2). One anomaly is outlined trending in a north-south direction. It is centered at 104+00N, 91+00E and extends to line 102+00N, 91+00E. This anomaly is the result of north-south trending mafic volcanic ridges. No further testing of this anomaly is recommended.

GEOCHEMICAL SURVEY

Introduction

On the Bog Property, a total of 390 soil samples were taken. Samples
Geochemical Survey Cont'd

were taken every 50 metres along the grid lines. Each sample was analyzed for ppm copper, lead, zinc, molybdenum and silver in the Noranda Exploration Company, Limited laboratory located at 1050 Davie Street, Vancouver, B.C. The analyst was R. Fenton.

Sampling Procedure

Soil samples were obtained by digging holes with a mattock to a depth of 15 to 30 cm., where the visible "B" horizon, wherever possible, was exposed. Humus samples were taken in areas where the "A" or "B" horizons were not available.

Analytical Procedure

The samples were placed in "Hi" Wet Strength Kraft 3½X6" open end envelopes and the grid station was marked on the envelope with indelible felt pen. The samples were then dried for a period of 24 to 48 hours. Afterwards, the samples were screened and sifted to obtain a -80 mesh fraction.

The determination procedure for total copper, lead, zinc, molybdenum and silver is as follows: 0.2 grams of the -80 mesh material is digested in 2 ml. of HCl 04 and 0.5 ml. of HNO₃ for approximately four hours. Following digestion, each sample is diluted to 5 ml. with demineralized H₂O. A varian Techtron Model AA-5 Atomic Absorption Spectrophotometer was used to determine the parts per million (ppm) copper, lead, zinc, molybdenum and silver content in each sample.

The theory of the Atomic Absorption Spectrophotometer is fully outlined in the literature and will not be outlined in this report.

DISCUSSION OF RESULTS

Copper

The copper values obtained from the soil sampling on the grid map of the Bog Property were contoured at 10 ppm contour intervals. The results of this plotting (see dwg. No. 4) revealed two anomalous areas. The most northerly anomaly, located at 98+00N, 105+00E, is totally within the mafic volcanic rock unit. This area does not merit further investigation.

The second anomalous area, is located on line 94+00N, 104+00E and is associated with the feldspar porphyry intruding the phyllite.

Further testing by trenching is recommended. Mineralization was not apparent in this locality.
Discussion of Results Cont'd

Several isolated stations also recorded high copper values, and are, overall, insignificant.

**Molybdenum**

The molybdenum analyses were plotted on the same map as the copper values (see dwg. No. 4). Most of the molybdenum values were less than 2 ppm, however strong anomalous values of up to 52 ppm molybdenum were obtained. These occur on L96+00N, 100+00E and L97+00N, 99+50E. This is totally within the phyllite unit and is not associated with any other anomalous soil values. No further investigation is merited.

**Zinc**

The zinc values were plotted on the grid map (see dwg. No. 3) and contoured at 100 ppm intervals. The plot reveals one distinct anomaly. This anomaly is located at 100+00N, 99+50E in an area of good rock exposure. The rocks here are a graphitic phyllite with quartz lenses occurring throughout the outcrop. Small pyrite flecks were observed. The anomaly is 100 metres long and shows a distinct southerly dispersion. Further sampling and prospecting is recommended in this area.

**Lead**

The lead analyses from the soil sampling program were plotted on the same map as the zinc (see dwg. No. 3). The lead values range from a low of 2 ppm to a high of 20 ppm. Some values of 14 ppm occur with the zinc anomaly but no further trends could be detected.

**Silver**

The silver values (see dwg. No. 3) were very low but a high of 7 ppm was noted at the zinc anomaly. Further prospecting of this anomalous zone is recommended.
APPENDIX I

Statement of Qualifications
STATEMENT OF QUALIFICATIONS

I, George Owsiacki of the City of Kirkland Lake, Province of Ontario, do certify that:

1. I have been employed as a geologist by Noranda Exploration Company, Limited since June, 1981.

2. I am a graduate of Queen's University with a Bachelor of Science in Geology. (1981).

George Owsiacki, B. Sc.
Geologist,
Noranda Exploration Company, Limited
(No Personal Liability)
APPENDIX II

Statement of Cost
NORANDA EXPLORATION COMPANY, LIMITED

STATEMENT OF COST

PROJECT BOG

DATE July 22, 1981

TYPE OF REPORT Geology, Geophysics, Geochem & Line-Cutting

a) Wages:
   No. of Days 98
   Rate per Day $ 64.93469
   Dates From: Jan 1/81 - Jun 30/81
   Total Wages 98 x $ 64.93469 6,363.60

b) Food and Accommodation:
   No. of days 98
   Rate per day $ 9.50265
   Dates From: Jan 1/81 - Jun 30/81
   Total Cost 98 x $ 9.502.65 931.26

c) Transportation:
   No. of days 98
   Rate per day $ 1.21888
   Dates From: Jan 1/81 - Jun 30/81
   Total Cost 98 x $ 1.21888 119.45

d) Instrument Rental:
   Type of Instrument
   No. of days
   Rate per day $
   Dates From:
   Total Cost X $

   Type of Instrument
   No. of days
   Rate per day $
   Dates From:
   Total Cost X $
f) Analysis
(See attached schedule)

1,521.00

g) Cost of preparation of Report
Author
Drafting
Typing

129.86
212.09
129.86

h) Other:
Camp & Field Supplies

486.15

Total Cost

\$9,893.27

e) Unit costs for Geology
No. of days
35
No. of units
35
Unit costs
115.8274/ Day

Total Cost
35 x 115.8274

4,053.96

Unit costs for Geophysics
No. of units - 22.9 Km
Unit Costs - 17.3873/Km
Total Cost - 22.9 x 17.3873

398.17

Unit costs for Geochem
No. of Units - 390 samples
Unit Costs - 7.70577/sample
Total Cost - 390 x 7.70577

3,040.35

Unit costs for Line-Cutting
No. of Units - 22.9 Km
Unit costs - 104.83799/Km
Total Cost - 22.9 x 104.83799

2,400.79

Total Cost

\$9,893.27
NORANDA EXPLORATION COMPANY, LIMITED  
(WESTERN DIVISION)  

DETAILS OF ANALYSIS COSTS  

PROJECT: __BOG__  

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$ 1,521.00