REPORT
ON
GEOCHEMICAL SOIL SAMPLING
ON PROPERTY OF
JEDBURGH RESOURCES LTD.
BRACKIN TOWNSHIP, ONTARIO

by

PROSPECTING GEOPHYSICS LTD.

WILLOWDALE, ONTARIO

JANUARY 30, 1984
INTRODUCTION

Jedburgh Resources Ltd. recently acquired a 30 claim gold prospect in Brackin Township, Ontario some three miles south of the producing gold mine of Renable Mines Ltd.

The property is largely covered with overburden and a program of soil sampling to detect possible gold-bearing areas was chosen for the initial exploration of the property. This program has recently been completed and the following report and accompanying map describe the results of the survey.

PROPERTY AND LOCATION

The property consists of 30 unpatented claims situated in the northwest corner of Brackin Township in the Porcupine Mining Division of Ontario. The claims are recorded with the Ministry of Natural Resources under the following claim numbers as shown on the accompanying map:

P704005 to P704028 inclusive
P711421 to P711426 inclusive

The company has also acquired by staking an additional 23 claims to the southeast that are contiguous with the 30 claim group. The soil sampling survey was only carried out on the 30 claim group.

The property is situated about 50 miles northeast of the town of Wawa and some three miles south of the Renable Mine in Leeson Township.
GEOLOGY

Nearly all of Leeson Township and a large portion of Brackin Township are underlain by a large mass of granitic rocks. Most of the granitic rocks consist of a medium-grained foliated granodiorite. In Leeson Township, for a width of about 1,200 feet from the contact with the volcanic rocks at the west end of the township, the granodiorite is pink to grey and some of the rocks are foliated.

The volcanic rocks consist of metabasalt with an associated group of meta-ash flow rocks. In the vicinity of the Renabie Mine, the strike of the volcanic-granodiorite contact is arcuate, curving from northwest in the southern part of the township to northeast in the northern part. The dip of the contact is 50° to 60°W. This contact continues south into Brackin Township with a northwest strike and crosses the eastern portion of the Jedburgh claims. The central portion of the claim group is underlain by volcanics but a northwest trending body of porphyry with a width of about one-half mile underlies the western part of the group. The foliation along the contact of the porphyry with the volcanics is north-west with a dip of 70°W.

The ore zones of the Renabie Mine in Leeson Township are entirely within the granodiorite and consist of quartz lenses in shear zones. The favourable granodiorite-volcanic contact appears to extend through part of the Jedburgh claim group and the porphyry may also be a favourable host for mineralization.
SURVEY METHODS AND PROCEDURE

The soil samples were taken at 100 foot intervals along cut lines spaced at 400 foot intervals as shown on the accompanying map. Samples were also taken along the lake shores where feasible.

The samples were taken of the "B" horizon and organic material which were obtained by hand auger. The samples were numbered in the field using the line number and station and topographic features such as slope, swamp, etc., were recorded in the field notes. All samples were dried and sieved to obtain a minus 80 mesh fraction. The samples were then numbered numerically and shipped to the assay laboratory for gold determinations. The analysis was carried out by fire assay, using the aqua regia extraction method.

All assays were reported in parts per billion and the detection limit for gold in the required 10 gram sample is 5 ppb which increases to 50 ppb for a one gram sample.

The results of the program are presented on the accompanying map on a scale of 400 feet to the inch.

RESULTS OF THE GEOCHEMICAL SOIL SAMPLING

An examination of the accompanying map shows that the majority of the values obtained are 5 ppb which is the limit of detection for the samples. This can be regarded as the background value and those over 10 ppb are regarded as anomalous. These are identified as shown on the legend.
RESULTS OF THE GEOCHEMICAL SOIL SAMPLING (cont'd)

The portion of the property that stands out as anomalous is the area just northeast of the lake, where there are numerous values of 50 ppb and one of 100 ppb. The anomalous values are spread over a fair-sized area and the trend appears to be northwest. Correlating this with the geological data available on the property (Map No. 51G)*, it would appear that the anomalous values lie along or close to the east contact of the porphyry body with the volcanics. This is a favourable environment for mineralization and thus warrants further investigation.

Another interesting area is at the south boundary on claim P711425 where there are several samples with values of 50 ppb and one of 140 ppb. These might also be related to the northwest striking porphyry as the south contact is just north of this area.

CONCLUSIONS AND RECOMMENDATIONS

The geochemical soil sampling program located two areas of anomalous gold values that warrant further investigation. Since they appear to be in the vicinity of the porphyry-volcanic contacts, they take on added significance as this can be regarded as a favourable environment for gold mineralization.

On the basis of these results, further work should be confined to the vicinity of the porphyry body and the following recommendations are made for the further exploration of the property.

CONCLUSIONS AND RECOMMENDATIONS (cont'd)

1. Prospecting and reconnaissance geological mapping of the favourable area in an effort to outline the porphyry body and possible mineralization.

2. Carry out a V.L.F. (very low frequency) electromagnetic survey over the southern half of the property to outline conductive zones that might indicate shear zones and/or mineralized zones. The survey should be extended to cover all of the porphyry body indicated by 1 above.

3. Correlation of the above with results of the soil sampling to layout drill targets.

Respectfully submitted,

PROSPECTING GEOPHYSICS LTD.

Willowdale, Ontario
January 30, 1984

H. J. Bergmann, P. Eng.
<table>
<thead>
<tr>
<th>Special Provisions</th>
<th>Geophysical</th>
<th>Days per Claim</th>
<th>Geophysical</th>
<th>Days per Claim</th>
<th>Mining Claim Traversed (List in numerical sequence)</th>
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<td>For first survey:</td>
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<td>Enter 40 days. (This includes line cutting)</td>
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<td>- Radiometric</td>
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<td>- Magnetometer</td>
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<td>- Other</td>
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<td>Complete reverse side and enter those here</td>
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<td>Airborne Credits</td>
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<td>Expenditures (excludes power stripping and expenses)</td>
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<td>Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.</td>
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<td>Certified Verifying Report of Work</td>
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</tbody>
</table>

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Address of Person Certifying:
H. J. Bergmann, 70 Chiswell Crescent, Willowdale, Ontario M2N 6E1

February 15/84

Certified by: ____________________________ (Signature)
Ontario
Ministry of Natural Resources
GEOPHYSICAL - GEOLOGICAL - GEOCHEMICAL
TECHNICAL DATA STATEMENT

TO BE ATTACHED AS AN APPENDIX TO TECHNICAL REPORT
FACTS SHOWN HERE NEED NOT BE REPEATED IN REPORT
TECHNICAL REPORT MUST CONTAIN INTERPRETATION, CONCLUSIONS ETC.

Type of Survey(s) Geochemical Soil Sampling
Township or Area Brackin
Claim Holder(s) Jedburgh Resources Ltd.
Survey Company Prospecting Geophysics Ltd.
Author of Report H. J. Bergmann, P. Eng.
Address of Author 70 Chiswell Cres., Willowdale, Ont.
Covering Dates of Survey Sept. 12/83 - January 30/84
Total Miles of Line Cut 20.6

MINING CLAIMS TRAVERSED
List numerically

<table>
<thead>
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<th>File No.</th>
<th>Type</th>
<th>Date</th>
<th>Claim Holder</th>
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</tbody>
</table>

TOTAL CLAIMS 30

SPECIAL PROVISIONS
CREDITS REQUESTED

Geophysical
- Electromagnetic
- Magnetometer
- Radiometric
- Other

Geological
- Geochemical 40

AIRBORNE CREDITS
(Special provision credits do not apply to airborne surveys)
Magnetometer Electromagnetic Radiometric

DATE: Jan. 30, 1984 SIGNATURE: H. J. Bergmann

Res. Geol. Qualifications 63, 10261

Previous Surveys

Receivd

MINING LANDS SECTION

TOTAL CLAIMS 30
GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS — If more than one survey, specify data for each type of survey

Number of Stations: 1190
Number of Readings: 1203
Station interval: 100 ft
Profile scale
Contour interval

Instrument
Accuracy — Scale constant
Diurnal correction method
Base Station check-in interval (hours)
Base Station location and value

MAGNETIC

Instrument
Coil configuration
Coil separation
Accuracy
Method: □ Fixed transmitter □ Shoot back □ In line □ Parallel line
Frequency (specify V.L.F. station)
Parameters measured

Instrument
Scale constant
Corrections made
Base station value and location

ELEVATION

Instrument
Method □ Time Domain □ Frequency Domain
Parameters — On time ——— ——— ——— ———
— Off time ——— ——— ——— ———
— Delay time ——— ——— ——— ———
— Integration time ——— ——— ——— ———
Frequency ——— ——— ——— ———
Range ——— ——— ——— ———

Instrument
Electrode array
Electrode spacing
Type of electrode
### SELF POTENTIAL

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<th>Instrument</th>
<th>Range</th>
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<table>
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<tr>
<th>Survey Method</th>
<th>Corrections made</th>
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### RADIOMETRIC

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<th>Values measured</th>
<th>Energy windows (levels)</th>
<th>Height of instrument</th>
<th>Background Count</th>
<th>Size of detector</th>
<th>Overburden</th>
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(type, depth – include outcrop map)

### OTHERS (SEISMIC, DRILL WELL LOGGING ETC.)

<table>
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<tr>
<th>Type of survey</th>
<th>Instrument</th>
<th>Accuracy</th>
<th>Parameters measured</th>
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Additional information (for understanding results)

### AIRBORNE SURVEYS

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<th>Instrument(s)</th>
<th>Accuracy</th>
<th>Aircraft used</th>
<th>Sensor altitude</th>
<th>Navigation and flight path recovery method</th>
<th>Aircraft altitude</th>
<th>Line Spacing</th>
<th>Miles flown over total area</th>
<th>Over claims only</th>
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</thead>
<tbody>
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</table>

(specify for each type of survey)
**GEOCHEMICAL SURVEY – PROCEDURE RECORD**

Numbers of claims from which samples taken: P704005 to P704028

P711421 to P711426

<table>
<thead>
<tr>
<th>Total Number of Samples</th>
<th>1203</th>
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<tbody>
<tr>
<td>Type of Sample</td>
<td>Clay and humus (Nature of Material)</td>
</tr>
<tr>
<td>Average Sample Weight</td>
<td>10 grams</td>
</tr>
<tr>
<td>Method of Collection</td>
<td>Hand augur</td>
</tr>
<tr>
<td>Soil Horizon Sampled</td>
<td>&quot;B&quot;</td>
</tr>
<tr>
<td>Horizon Development</td>
<td>Slightly rugged with some swampy areas</td>
</tr>
<tr>
<td>Sample Depth</td>
<td>3 feet</td>
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</tbody>
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**ANALYTICAL METHODS**

Values expressed in: per cent ☐
p. p. m. ☒
p. p. b. ☒

Cu, Pb, Zn, Ni, Co, Ag, Mo, As, (circle)

Others Gold

Field Analysis (tests)

Extraction Method

Analytical Method

Reagents Used

Field Laboratory Analysis

No. (tests)

Extraction Method

Analytical Method

Reagents Used

Commercial Laboratory (tests)

Name of Laboratory **Bondar-Clegg**

Extraction Method **Aqua regia**

Analytical Method **Fire Assay**

Reagents Used

General

---
June 23, 1984

Mr. S. E. Yundt, Director
Land Management Branch
Ministry of Natural Resources
Room 6643
Whitney Block
Queen's Park
Toronto, Ont.
M7A 1W3

Dear Sir,

Your letter of June 8 to Jedburgh Resources re the Geochemical Survey on mining claims P704005 et al in Brackin township has been referred to us for reply.

We have completed the necessary "Assessment Work Breakdown" forms and are enclosing them in duplicate. We trust this is satisfactory but if further information is required please let us know.

Yours very truly

HJBJb

PROSPECTING GEOPHYSICS LTD.
H. J. Bergmann, P. Eng.

Encls.

cc to Bryan Gransden
Jedburgh Resources Ltd.

NOTE:

190 samples ÷ 30
= 6.33 samples
per claim

- D. K.
Ministry of Natural Resources

Ontario Assessment Work Breakdown

1. Type of Survey: Geochemical, Soil Sampling

2. Township or Area: Brockin


4. Number of Miles of Line Cut: 20.6

5. Number of Stations Established: 1190

6. Make and type of Instrument Used

7. Scale Constant or Sensitivity

8. Frequency Used and Power Output

9. Summary of Assessment Credits (details on reverse side)

Total 8 hour Technical Days (Include Consultants, Draughting etc.): 118

Total 8 hour Line-Cutting Days: 57

Calculation:

\[
\text{Technical} \times 7 = 826 + \text{Line-cutting} = 883 \div \text{Number of claims} = 29.43 \div \text{Assessment credits per claim}
\]

The dates listed on this form represent working time spent entirely within the limits of the above listed claims. Check if otherwise, please explain.

Dated: June 20/84

Signed: [Signature]

Note:

(A) * Complete only if applicable.

(B) Complete list of names, addresses and dates on reverse side.

(C) Submit separate breakdown for each type of survey.

(D) Submit in duplicate.
# Details of Assessment Work Breakdown

## FIELD WORK

<table>
<thead>
<tr>
<th>Type of Work</th>
<th>Name &amp; Address</th>
<th>Dates Worked</th>
<th>Number of 8 hour days</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soil sampling</td>
<td>D. Ferdeker - Val d’Or Que.</td>
<td>Sept 23-Oct 29, 1983</td>
<td>28</td>
</tr>
</tbody>
</table>

## CONSULTANTS

<table>
<thead>
<tr>
<th>Name &amp; Address</th>
<th>Dates Worked (specify in field or office)</th>
<th>Number of 8 hour days</th>
</tr>
</thead>
<tbody>
<tr>
<td>H. L. Bergmann - Willowdale, Ont.</td>
<td>Jan 20-30, 1984 - Office</td>
<td>6</td>
</tr>
<tr>
<td>David Ross - Val d’Or Que.</td>
<td>Oct 15-17, 1983 - Field</td>
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<tr>
<td>P. Ferdeker - Val d’Or Que.</td>
<td>Dec 19-21, 1983 - Office</td>
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## DRAUGHTSMAN, TYPING, OTHERS (specify)

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<th>Number of 8 hour days</th>
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<tr>
<td>Elin Namys, Asst.</td>
<td>Draughting</td>
<td>Jan 12-22, 1984</td>
<td>10</td>
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<tr>
<td>Barbara Silver</td>
<td>Typing</td>
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**TOTAL 8 HOUR TECHNICAL DAYS** 118

## LINE-CUTTING

<table>
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<tr>
<th>Name &amp; Address</th>
<th>Dates Worked</th>
<th>Number of 8 hour days</th>
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<tbody>
<tr>
<td>G. Ferdeker</td>
<td>Val d’Or Que.</td>
<td>Sept 12, 1983 - Sept 20, 1983</td>
</tr>
<tr>
<td>A. Leguer</td>
<td>Val d’Or Que.</td>
<td>Sept 12, 1983 - Sept 20, 1983</td>
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<tr>
<td>L. Potranguin</td>
<td>Val d’Or Que.</td>
<td>Sept 12, 1983 - Sept 20, 1983</td>
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</table>

**TOTAL 8 HOUR LINE-CUTTING DAYS** 57
June 8, 1984

Dear Sir:

RE: Geochemical Survey on Mining Claims
P 704005 et al in Brackin Township

The above-described survey does not qualify for credit under Special Provisions as there is not a minimum of forty samples taken per claim.

Please complete the enclosed "Assessment Work Breakdown" (in duplicate) listing the names and addresses of the employees and the dates that each man worked on the survey. The geochemical survey will then be assessed under the provisions of Section 77(12) of the Mining Act.

For further information, please contact Mr. Ray Pichette at (416)965-4888.

Yours sincerely,

S.E. Yundt
Director
Land Management Branch

Whitney Block, Room 6643
Queen's Park
Toronto, Ontario
M7A 1W3
Phone:(416)965-4888

S. Hurst:cc

cc: Mining Recorder
T1minns, Ontario

Encl.
Dear Sir:

We have received reports and maps for a Geochemical survey submitted under Special Provisions (credit for Performance and Coverage) on mining claims P 704005 to 28 incl. 711421 to 26 incl. in the Township of Brackin.

This material will be examined and assessed and a statement of assessment work credits will be issued.

We do not have a copy of the report of work which is normally filed with you prior to the submission of this technical data. Please forward a copy as soon as possible.

Yours sincerely,

S.E. Yundt
Director
Land Management Branch

Whitney Block
Room 6643
Queen's Park
Toronto, Ontario
M7A 1W3
Phone: 416/965-6918

A. Barr:dg

cc: Jedburg Resources Ltd.
   215 - 10th Avenue S.W.
   # 206
   Calgary, Alberta T2R 0A4

cc: Prospecting Geophysics Ltd.
    70 Chiswell Crescent
    Willowdale, Ont.
    M2N 6E1
    Attn: H.J. Bergmann
February 15, 1984

Mr. F. Matthews
Lands Administration Branch
Ministry of Natural Resources
Whitney Block
Queen's Park
Toronto, Ontario
M7A 1W3

Dear Mr. Matthews:

Re: Claims P704005 - P704028 and P711421-P711426

Enclosed you will find two copies of the report and map covering a geochemical survey carried out on the above-mentioned claims in Brackin Township.

The work has already been filed with the Mining Recorder.

Sincerely yours,

PROSPECTING GEOPHYSICS LTD.

H. J. Bergmann, P. Eng.

HJB:bss
Encl. (3)
Mining Lands Section

Control Sheet

File No 2.4.20

TYPE OF SURVEY

GEOPHYSICAL

GEOLOGICAL

GEOCHEMICAL

EXPENDITURE

MINING LANDS COMMENTS:

man. reas breakdown needed, not 40 sampled
per claim.

Signature of Assessor

Date
REPORT OF WORK
(Geophysical, Geological, Geochemical and Expenditures)

Geochemical Soil Sampling

Jedburgh Resources Ltd.

0. Box 960, Postal Station 2, Toronto, Ontario M4T 2P1

The Mining Act

Company

Prospecting Geophysics Ltd.

Date of Survey (from & to)

12/9/83 to 10/1/84

Total Mile of Line Cut

20.6

Requested for each claim in columns at right

Geophysical

- Electromagnetic
- Magnetometer
- Radiometric
- Other

Geochemical

- Electromagnetic
- Magnetometer
- Radiometric
- Other

Expenditures

Number of mining claims traversed exceeds space on this form, attach a list.

Note: Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.

Do not use shaded area below.

- Enter 40 days. (This includes line cutting)
- Enter 20 days (for each)

Complete reverse side and enter totals here

Certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work listed same during and/or after its completion and the annexed report is true.

J. Bergmann, 70 Chiswell Crescent, Willowdale, Ontario M2N 6E1

Feb. 15, 1984