

83 #567 - #11438

THE ASSOCIATION OF  
PROFESSIONAL ENGINEERS,  
GEOLOGISTS and GEOPHYSICISTS  
OF ALBERTA  
PERMIT NUMBER  
P 1041  
Robertson Research  
Canada Limited

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**11,438**

*Filmed*

10

ASSESSMENT REPORT  
BLEWETT CLAIMS  
NELSON MINING DIVISION  
NTS 82 F/6W

Lat: 49°29'      Long: 117°24'

OWNER: G. W. SINDEN

OPERATOR: GREENWICH RESOURCES, INC.

CONSULTANT CONTRACTOR: ROBERTSON RESEARCH CANADA LIMITED

BY

DAVID S. EVANS, Ph.D., P. Geol.,  
Consultant to  
ROBERTSON RESEARCH CANADA LIMITED

NOVEMBER 1983

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1. SUMMARY

Thirty-one soil samples have been collected from the Blewett claim group.

A significant and coincident Au and Ag soil anomaly has been identified on the Royal Charter claim. The source of this anomaly is consistent with the projected extension of known precious metals bearing vein structures located on the formerly producing Royal Canadian Mine.

Follow-up detailed soil sampling, including a deep sampling orientation study is recommended to establish and confirm the bedrock source of the reconnaissance anomaly.

## 2. INTRODUCTION

### 2.1 Location and Access

The Blewett claims (Table 1) are located in the Nelson Mining Division of southeastern British Columbia, approximately 11 km west of the city of Nelson and on the south shore of the Kootenay River (Fig. 1).

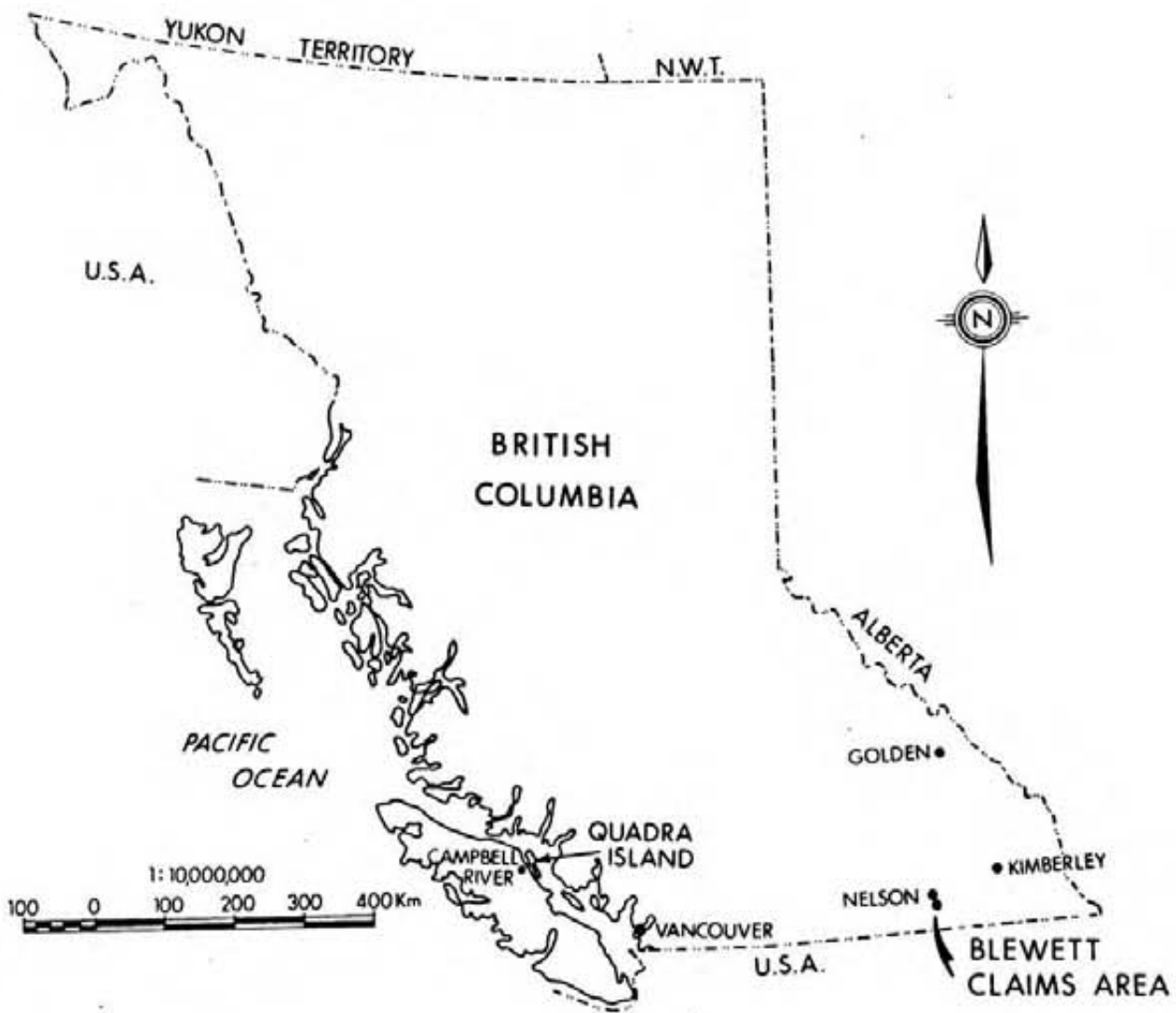
The property is accessible by a paved road from Highway #6, 3A at the old Taghum Bridge site to the small community of Blewett (Fig. 2).

TABLE 1  
MINERAL CLAIMS

| <u>Claim</u>  | <u>Record No.</u> | <u>Month of Record</u> | <u>Owner</u> |
|---------------|-------------------|------------------------|--------------|
| Royal Seal    | 2834              | Nov.                   | G. W. Sinden |
| Republic      | 2835              | Nov.                   | G. W. Sinden |
| Roy No. 2     | 2836              | Dec.                   | G. W. Sinden |
| Minnie        | 2837              | Dec.                   | G. W. Sinden |
| Nevada        | 2838              | Dec.                   | G. W. Sinden |
| Royal Charter | 2830              | Dec.                   | G. W. Sinden |

### 2.2 Physiography and Climate

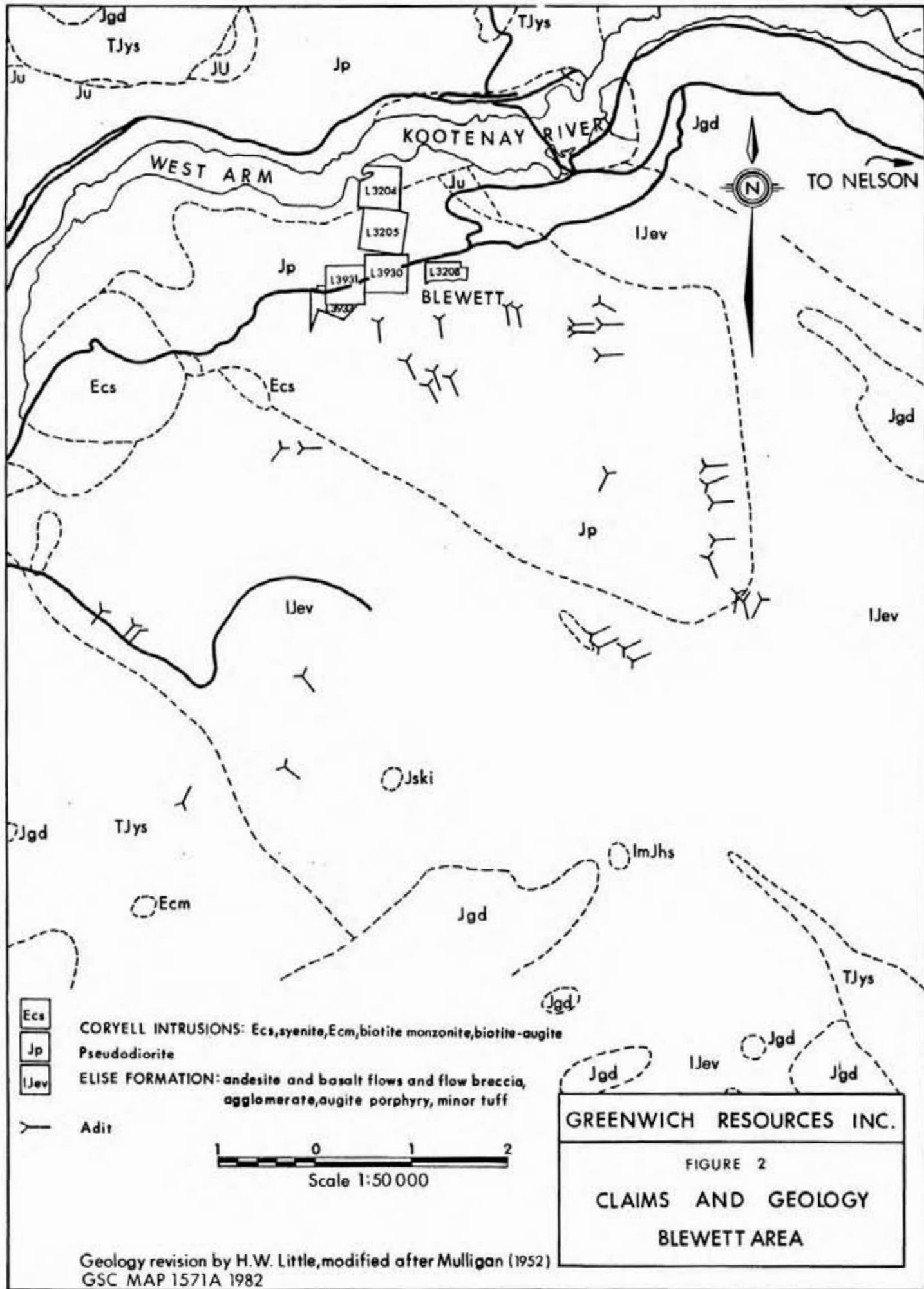
The topography is a gently sloping terrain and outcrop is limited to a few locations along the Kootenay River. The area has been logged and some clearing of land has taken place for farming and housing. Uncleared land tends to be heavily vegetated.



GREENWICH RESOURCES INC.

FIGURE 1

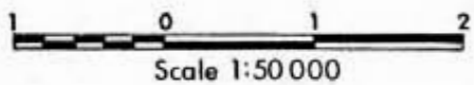
PROPERTY INDEX MAP



- Ecs
- Jp
- IJev

**CORYELL INTRUSIONS:** Ecs, syenite, Ecm, biotite monzonite, biotite-augite  
 Pseudodiorite  
**ELISE FORMATION:** andesite and basalt flows and flow breccia,  
 agglomerate, augite porphyry, minor tuff

Adit



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FIGURE 2  
**CLAIMS AND GEOLOGY**  
**BLEWETT AREA**

Geology revision by H.W. Little, modified after Mulligan (1952)  
 GSC MAP 1571A 1982

The climate of the West Kootenay region is characterized by warm summers, normally extending from May to September, a cool and damp fall and spring, and relatively mild winters.



### 3. GEOLOGY

#### 3.1 Regional Geology

The Blewett claims lie within the Bonnington Map-Area and have been geologically mapped and described by Mulligan (1952) and Little (1960, 1982).

The Nelson-Salmo area is underlain by a north-south trending Mesozoic volcano-sedimentary package wedged in Nelson Plutonic rocks flanking to the east and west.

#### 3.2 Local Geology

One major geological unit underlies the Blewett claims area.

According to Little (1982), "A large body of dioritic rock straddles the Kootenay west of Taghum Bridge and is termed pseudodiorite. It is believed to be at least partly reconstituted volcanic rock. The pseudodiorite is younger than the Rossland Group and older than the Nelson Intrusions and is of Jurassic Age."

In outcrop along the Kootenay River a moderately to strongly foliated gneissic rock was observed; and is believed to be the pseudodiorite described by Little (op. cit.).

### 3.3 Mineralization

The area of interest is an extension of vein(s) from the Royal Canadian Mine (Fig. 3).

Cockfield (1936) has described this former producer in Memoir 191. The main vein is a quartz vein striking north 15 degrees dipping northeast at 60 to 70 degrees. Sulphide mineralization is pyrite and minor chloropyrite. The vein varies in width up to 1.2 m, but is generally less than 30-35 cm. On the 975 m level the vein is displaced by a lamprophyre dyke. Four audits have been driven at elevation of 1056 m, 1019 m, 1001 m and 975 m. According to Cockfield (op. cit.) the Royal Canadian is said to have produced about \$36,000 worth of ore.

The Nevada vein intersects the Royal Canadian vein normally at a location to the south of the Blewett Property and dips 50° SE. This vein is stated by Cockfield to follow the 'contact of granodiorite with the inclusion of the Rosslund volcanics ...' This last statement appears to indicate that the pseudodiorite area of Mulligan and Little may not be extensive as outlined on Map 1571A.

There are apparently no records of gold values from either the Royal Canadian or the Nevada, but an old map from the Private Files in Victoria indicates the "Royal Canadian Vein" averaged \$12.00/ton, the Colorado Vein (parallel to the Royal Canadian) averaged \$15.00/ton and the Contact (Nevada) Vein averaged \$60.00/ton. The date of the above record would place gold price about \$22/ounce.

#### 4. GEOCHEMISTRY

##### 4.1 Soil Samples

Thirty-one soil samples were collected at 5 m intervals across the projection of the vein structures extending from the Royal Canadian Mine (Fig. 3). B horizon soils at 20-30 cm. depth were collected in an undisturbed area (Fig. 3) to minimize any cultural or agricultural redistribution of geochemical patterns.

##### 4.2 Statistical Analysis

No. of samples - 31

|       | <u>Au</u> (ppb) | <u>Ag</u> (ppb) | <u>As</u> (ppm) | <u>Cu</u> (ppm) |
|-------|-----------------|-----------------|-----------------|-----------------|
| *X    | 6.1             | 531             | 4.3             | 178             |
| **SD  | 5.8             | 232             | 1.7             | 90              |
| X+1SD | 11.9            | 763             | 6.0             | 268             |
| X+2SD | 17.7            | 995             | 7.7             | 358             |

\*X = Arithmetic Mean      \*\*SD = Standard Deviation

##### 4.3 Discussion

A statistically significant Au and Ag anomalies is identified in the area extending from 90 to 115S (Appendix 2, Pages 1 and 2). There is no accompanying or supporting As or Cu expressions; but, these elements are correspondingly low in the Royal Canadian Dump Samples (Appendix 2, Page 3).

5. CONCLUSIONS

A statistically significant Au and Ag soil anomaly is located within the Royal Charter claim. The source of the anomaly corresponds closely to the extension of two veins previously reported and/or mined on the contiguous Royal Canadian property to the south of the Blewett Property.

6. RECOMMENDATIONS

- (1) Additional detailed soil sampling is recommended in the area of interest to assess strike extensions of known gold-bearing vein structures.
- (2) In addition to new lines coverage, a deep soil sampling orientation survey should also be carried out normal to the assumed strike of structures to more closely identify subcrop location(s) of the precious metal-bearing veins; and ideally, to overcome cultural and agricultural redistribution effects of secondary dispersion patterns.

9. SELECTED REFERENCES

Cockfield, W.E., 1936

Lode Gold Deposits of the Ymir-Nelson Area, British  
Columbia, GSC Memoir 191.

Little, H. W., 1982.

Bonnington Map area, British Columbia, G.S.C. Map 1571A.

Little, H. W., 1960.

Nelson Map-Area, West Half British Columbia (82 F W1/2),  
G.S.C. Memoir 308, 205 p.

Mulligan, R., 1952.

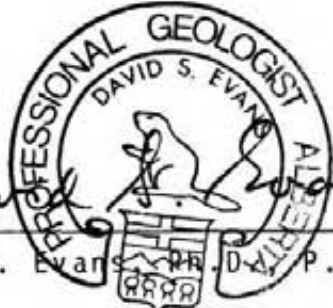
Bonnington Map-Area, British Columbia, G.S.C. Paper  
52-13.

CERTIFICATE

I, David S. Evans, currently residing at 5232 Viceroy Drive N.W., Calgary, Alberta T3A 0V7, hereby certify that:

1. I am a mining exploration geologist and have practised my profession since 1966.
2. I am a graduate of the University of British Columbia with a B.Sc. (1966) in Chemistry and Geology, and a graduate of the Royal School of Mines, University of London (U.K.) with a Ph.D. (1971) in Applied Geochemistry.
3. I am a registered Professional Geologist with the Association of Professional Engineers, Geologists and Geophysicists of Alberta, a member of the Society of Exploration Geochemists, and a fellow of the Geological Society of Canada.
4. I visited the Blewett Property on May 20, 1983.
4. The work in this report was carried out under my supervision.

Nov. 10, 1983  
Date

  
David S. Evans, Ph.D., P. Geol.

APPENDIX 1

ANALYTICAL INFORMATION

Laboratory: TerraMin Research Labs Ltd.  
Calgary, Alberta

Mesh Size: -80 soils/-100 rocks

Extraction: For Cu:  $\text{HNO}_3/\text{HClO}_4$  to dryness, taken up  
in HCl

For As: Aqua Regia dissolution, Arsine  
gas hydride evolution

For Au/Ag: Fire Assay Fusion, cupellation  
and acid dissolution of precious  
metal bead

Analysis: Atomic Absorption



APPENDIX 2

GEOCHEMICAL DATA



# TERRAMIN RESEARCH LABS LTD.

## ANALYTICAL REPORT

Job # 83-123

Date

Client Project BLEWETT

Page 2/7

| Sample No.<br><u>Soil</u> | Au<br>ppb | Ag<br>ppb | As<br>ppm | Cu<br>ppm |
|---------------------------|-----------|-----------|-----------|-----------|
| BL 00 S                   | 8         | 480       | 3.8       | 112       |
| 05                        | 8         | 560       | 2.8       | 143       |
| 10                        | 10        | 910       | 3.2       | 138       |
| 15                        | 6         | 600       | 3.6       | 210       |
| 20                        | -2        | 510       | 3.6       | 152       |
| 25                        | 8         | 790       | 6.4       | 83        |
| 30                        | 4         | 650       | 1.8       | 118       |
| 35                        | -2        | 400       | 2.8       | 157       |
| 40                        | 2         | 180       | 4.4       | 202       |
| 45                        | 4         | 170       | 5.0       | 137       |
| 50                        | 2         | 250       | 4.0       | 158       |
| 55                        | 4         | 490       | 6.4       | 45        |
| 60                        | 6         | 140       | 5.6       | 169       |
| 65                        | 12        | 350       | 7.2       | 53        |
| 70                        | 6         | 670       | 4.4       | 144       |
| 75                        | 2         | 480       | 4.0       | 121       |
| 80                        | -2        | 500       | 5.0       | 200       |
| 85                        | 2         | 560       | 2.6       | 230       |
| 90                        | -2        | 740       | 1.8       | 350       |
| 95                        | 2         | 510       | 2.4       | 290       |
| 100                       | 12        | 1180      | 2.0       | 460       |
| 105                       | 14        | 830       | 4.0       | 210       |
| 110                       | 24        | 360       | 5.6       | 157       |
| 115                       | 2         | 860       | 3.2       | 310       |
| 120                       | 6         | 440       | 7.8       | 260       |



# TERRAMIN RESEARCH LABS LTD.

## ANALYTICAL REPORT

Job # 83-123

Date

Client Project BLEWETT

Page 3/7

| Sample No.<br><u>Soil</u> | Au<br>ppb | Ag<br>ppb | As<br>ppm | Cu<br>ppm |
|---------------------------|-----------|-----------|-----------|-----------|
| BL 125 S                  | 22        | 280       | 3.4       | 183       |
| 130                       | 4         | 470       | 2.6       | 260       |
| 135                       | 2         | 710       | 6.0       | 133       |
| 140                       | 2         | 400       | 7.0       | 174       |
| 145                       | 2         | 530       | 6.8       | 72        |
| 150                       | 8         | 460       | 4.0       | 80        |



# TERRAMIN RESEARCH LABS LTD.

## ANALYTICAL REPORT

Job # 83-123

Date

Client Project ROYAL CANADIAN

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| Sample No.         | Au<br>ppb | Ag<br>ppb | As<br>ppm | Cu<br>ppm |
|--------------------|-----------|-----------|-----------|-----------|
| RC Dump - Upper #1 | 1680      | 890       | 1.0       | 340       |
| #2                 | 188       | 1120      | 1.2       | 410       |
| Lower #1           | 86        | 980       | 0.8       | 1000      |
| #2                 | 254       | 13000     | 1.6       | 139       |
| #3                 | 544       | 2300      | 1.0       | 530       |

APPENDIX 3

STATEMENT OF  
EXPLORATION EXPENDITURES

STATEMENT OF 1983 EXPENDITURES  
BLEWETT CLAIMS

| NAME/ADDRESS   | DAYS WORKED       | WAGES       |            |                 | SUBSISTENCE     |              |         |
|--|-------------------|-------------|------------|-----------------|-----------------|--------------|---------|
|  |                   | Days Worked | Daily Rate | Total Wages     | Total Days      | Rate Per Day | Amount  |
| Gordon W. Sinden<br>Senior Technologist<br>Robertson Research Canada Ltd.<br>300, 604 - 1st Street S.W.<br>CALGARY, Alberta T2P 1M7          | May 20,           | 1           | \$155.00   | \$155.00        | 1               | \$25.00      | \$25.00 |
| David S. Evans<br>Exploration Manager/Geochemist<br>Robertson Research Canada Ltd.<br>300, 604 - 1st Street S.W.<br>CALGARY, Alberta T2P 1M7 | May 20            | 1           | \$360.00   | \$360.00        | 1               | \$25.00      | \$25.00 |
| Tim Joveski<br>Field Assistant<br>R.R. #1<br>Nelson, B.C.<br>V1L 5P4   | May 27,<br>June 1 | 2           | \$110.00   | \$220.00        | 2               | \$25.00      | \$50.00 |
| Ken Konkin<br>Field Assistant<br>Box 52<br>Nelson, B.C.<br>V1L 5P7   | May 27,<br>June 1 | 2           | \$110.00   | \$220.00        | 2               | \$25.00      | \$50.00 |
|  |                   |             |            | TOTAL \$ 955.00 | TOTAL \$ 150.00 |              |         |

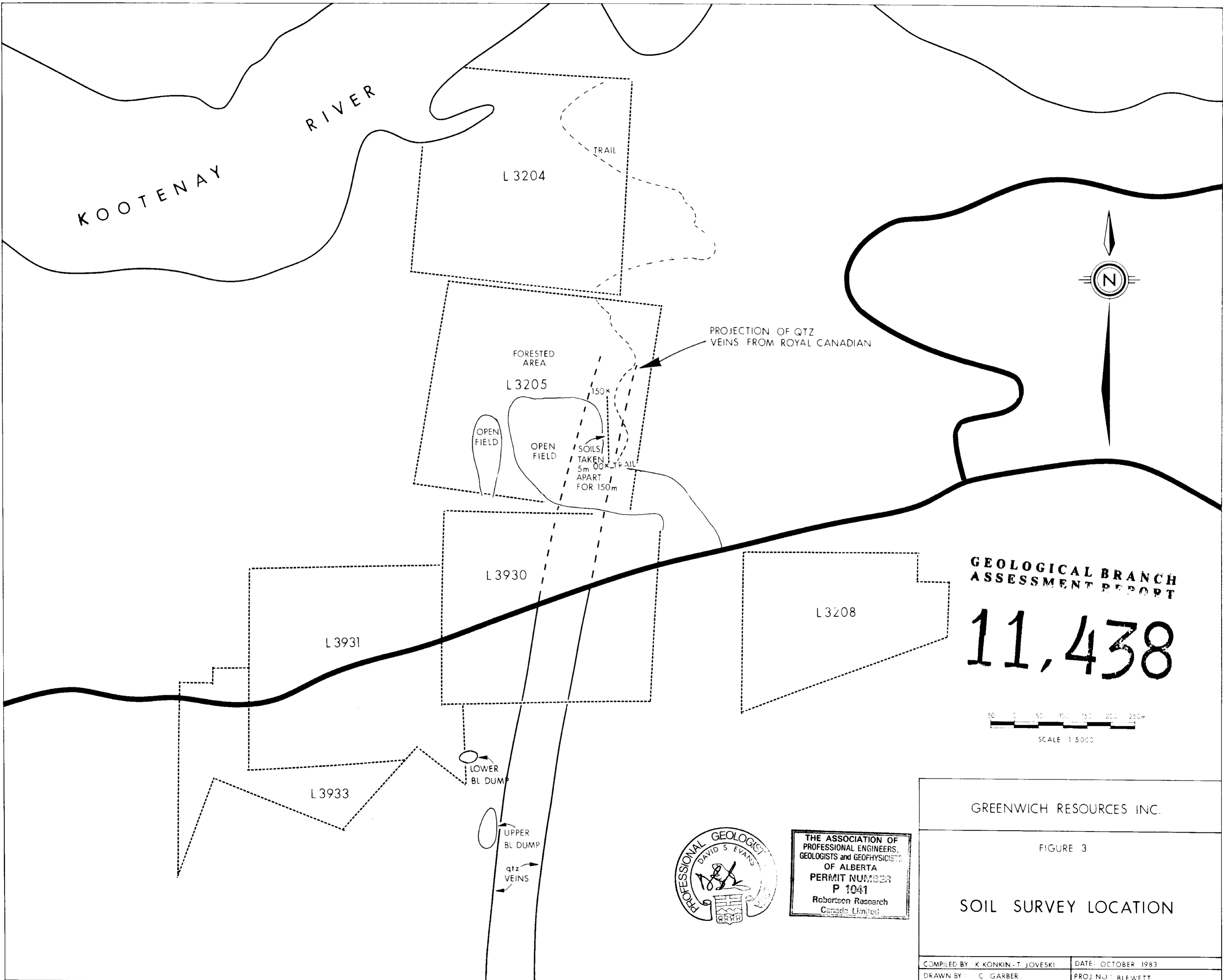
STATEMENT OF 1983 EXPENDITURES  
BLEWETT CLAIMS

Other Expenditures

|  |           |
|--|-----------|
| Field Office Rental                        | \$ 50.00  |
| Supplies and Equipment                     | 30.00     |
| Truck Rental (incl. gas, oil, maintenance) | 120.00    |
| Air Travel, Mileage and Expenses           | 90.00     |
| Freight                                    | 30.00     |
| Communications - Telephone                 | 10.00     |
| Analyses                                   | 453.55    |
| Drafting                                   | 125.00    |
|  | <hr/>     |
| Total Other Expenditures                   | \$ 908.55 |

Summary

|                          |            |
|--------------------------|------------|
| Total Wages              | \$ 955.00  |
| Total Subsistence        | 150.00     |
| Total Other Expenditures | 908.55     |
|                          | <hr/>      |
| Total Project Costs      | \$ 2013.55 |
| Report Preparation       | 350.00     |
|                          | <hr/>      |
| TOTAL 1983 EXPENDITURES  | \$ 2363.55 |



**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**11,438**

SCALE 1:5000

GREENWICH RESOURCES INC.

FIGURE 3

**SOIL SURVEY LOCATION**



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GEOLOGISTS and GEOPHYSICISTS  
OF ALBERTA  
PERMIT NUMBER  
P 1041  
Robertson Research  
Canada Limited

|                                   |                    |
|-----------------------------------|--------------------|
| COMPILED BY: K KONKIN - T JOVESKI | DATE: OCTOBER 1983 |
| DRAWN BY: C GARBER                | PROJ NO: BLEWETT   |