

GEOLOGY · GEOPHYSICS MINING ENGINEERING

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XPLORE III AND IV CLAIMS

Alberni Mining Division - British Columbia

N.T.S. 92 C/15E (92C.087)

Lat. 48° 52' N Long. 124° 41' W



WELLINGTON-YOUNG RESOURCES INC.

GEOLOGICAL BRANCH ASSESSMENT REPORT

Donald G. Allen, P. Eng. (B.C.)

Vancouver, B.C.

May 17, 1991

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INTRODUCTION

Wellington-Young Resources Inc. holds the XPLORE III and IV claims, comprising 25 claim units in the Nitinat River area of southern Vancouver Island.

The purpose of this report is to summarize results of preliminary prospecting and geological mapping and reconnaissance geochemical sampling conducted during the period February 18 to 21, 1991.

LOCATION, ACCESS, PHYSIOGRAPHY

The XPLORE III and IV claims are situated immediately to the west of the confluence of the Little Nitinat River with the Nitinat River 45 kilometres west-northwest of the community of Cowichan Lake and 40 kilometres south-southeast of the community of Port Alberni (Figure 1). Good logging roads provide access to the northwest corner of the XPLORE III claim and the east edge of the XPLORE IV claim (Figure 2). The claim area has been almost completely logged and is covered with immature growths of cedar, hemlock and Douglas fir. A number of old logging roads traverse the claims, however the roads are either washed out in places, or are covered with a dense growth of scrub alder, so are traversable only by foot.

The property is in the Vancouver Island Mountain Ranges. Elevations in the claim area range from 40 to 750 metres. Slopes in general are moderately steep, although the XPLORE IV claim covers a relatively flat terrace along the west side of the Little Nitinat River.

Outcrops are abundant on the steeper slopes of the property, but creek margins and more gentle slopes are covered with an extremely compacted glacial till up to several tens of metres thick.

CLAIM DATA

The XPLORE III and IV claims comprise 25 claim units as follows (see Figure 3):

| Claim Name | No. of Units | Record No. | Date Staked | Expiry Date |
|------------|--------------|------------|---------------|---------------|
| XPLORE III | 20 | 4002 | Feb. 21, 1991 | Feb. 21, 1992 |
| XPLORE IV | 5 | 4003 | Feb. 21, 1991 | Feb. 21, 1992 |

Assuming that work represented by this report is accepted for assessment purposes.

The claims are registered in the name of Wellington-Young Resources Inc.

1991 EXPLORATION PROGRAM

A preliminary program of prospecting, geological mapping and geochemical sampling was initated on the XPLORE claims. Several of the main logging roads were traversed by foot. Outcrops were examined and mapped and samples of soil or rock were collected at 100 to 200 metre intervals along the roads. A 1:5000 scale base map was prepared from a series of topographic maps kindly supplied by Fletcher Challange Ltd. and MacMillan Bloedell Ltd. Although topographic data is not available for the entire claim area, the roads traversed appear to be plotted reasonably accurately where checked with compass and hip chain.

GEOLOGY

Lithology

The property appears to be underlain almost entirely by Bonanza Group volcanic rocks of Jurassic age. In general they are of intermediate composition, ranging in composition from andesite to latite. A variety of textural types were mapped, as shown on Figure 4. The most abundant rock types encountered were fine-grained to porphyritic andesite and dacite ranging in color from purple to grey. Minor amounts of latite and rhyolite are also present. Porphyritic phases contain sparse to abundant 0.2 to 2 millimetre feldspar phenocrysts in a fine-grained or locally medium grained groundmass. Augite phenocrysts were noted in one locality in andesite.

Coarse volcaniclastics with subrounded fragments up to 7 centimetres in diameter were observed locally near the west end of the XPLORE claim. Several thin tuffaceous horizons, display bedding attitudes ranging from 155° to 082° with steep easterly and southerly dips.

Triassic sedimentary rocks (limestone, shale, argillite) of the Parson Bay formation, while not observed in this study, are reported to outcrop to the northeast of Flora Lake (Sutherland Brown et al, 1986). A large body of diorite of the Island Intrusions lies about 2 kilometres to the west. A few small outcrops, on the XPLORE claims were tentatively classified as being of possible intrusive origin, and may be related to this pluton.

Shearing and fracturing with roughly east west trends were observed on the XPLORE IV and southwest corner of the XPLORE III claim.

Alteration and Mineralization

All rocks appear to be relatively fresh, except for trace to minor amounts of disseminated epidote. No significant mineralization was encountered except for: 1) minor amounts of disseminated pyrite (up to 2%) were found in two outcrops in the central part of the XPLORE IV claim (rock sample sites 106024 and 106025); and 2) scattered barren quartz veinlets were observed locally in two outcrops (rock sample sites 106026 and 106027). Zeolite minerals commonly occur in zones of shearing and intense fracturing.

GEOCHEMICAL SAMPLING

A total of 5 rock samples, 29 soil samples and 1 stream sediment sample were collected from the property.

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Soil samples consisted mainly of glacial till collected from the soil profile at depths of 0.5 to 2 metres along road cuts. Typically, the glacial till is a fresh extremely compacted boulder clay, which is grey in color. The upper 0.1 to 0.7 metres is usually weathered to an orangebrown color. Except for a few sites, only the unweathered clay was sampled. Samples were placed in Kraft paper bags and sent to Rossbacher Laboratory Ltd. for gold analyses by atomic absorption spectrometry and for 30 element analysis by inductively coupled plasma spectrometry. Analytical results are included in Appendix I. Sample sites and numbers, along with copper values and selected anomalous values of other elements, are plotted on Figure 4.

The only anomaly values of possible significance is a one station gold anomaly of 1000 parts per billion (Sample 106013). The anomaly appears to lie in a zone of slightly elevated copper values (47 to 103 parts per million) but may be related to a zone of fracturing and shearing which occurs in nearby outcrops. More detailed sampling on a grid pattern is warranted for this area.

Elsewhere, weakly to moderately anomalous copper values of 83 and 126 parts per million (Sample sites 106033 and 106035) on the XPLORE III claim also suggest more detailed sampling is warranted.



D. J. aller

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REFERENCES

- Muller, J.E. and Carson, D.J.T. (1970). Geology and Mineral Deposits of Alberni Map-Area, British Columbia (92F), GSC Paper 68-50.
- Muller, J.E. (1982). Geology of Nitinat Lake Map-Area, British Columbia, GSC Open File 821.
- Southerland Brown, A., Yorath, C.J., Anderson, R.G., and Dom, K. (1986). Geological Maps of Southern Vancouver Island, Lithprobe 1, GSC Open File 1272.

APPENDIX I

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Analytical Results

CERTIFICATE OF ANALYSIS

2225 S. Springer Ave., Burnaby, British Columbia, Can. V5B 3M1 Ph: (604)299-6910 Fax: 299-6252

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| | TO : A&M EXPLORATION LTD. #714-850 W. HASTINGS ST. VANCOUVER, B.C. PROJECT : 54S TYPE OF ANALYSIS : ICP | | | | | | | | | | CERTIFICATE # : 91051 INVOICE # : 20200 DATE ENTERED : 91+03-08 FILE NAME : A&M91051.I PAGE # : 1 | | | | | | | | | | | | | | | | | | | | | | |
|------------|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-------------|---|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|---------|------|-----------|-----------|---------|-----------|---------|------------------|--------------|-----------|--------|----------|-----------|-----------|
| PRE FIX | SAMPLE NAME | РРН НО | PPM Cu | PPM PB | PPN ZN | PPM AG | PPH NI | PPN CO | PPN MN | ۲ FE | PPM AS | PPN U | PPK Au | РРМ Нб | PPN SR | PPM CD | PPN SB | PPM BI | PPN V | l Ca | ž | PPM LA | PPN CR | ۲ ۳6 | PPN BA | 1 11 | РР М В | 1 1 AL | 2 Si02 | Z K | PPN ¥ | PPM BE | PPB AU |
| 3 | 105001 | ! | 31 | 3 | 85 | 0.1 | 8 | 4 | 797 | 3.14 | 9 | 5 | ND | ND | 34 | 1 | 2 | 2 | 70 | 0.70 | 0.07 | 6 | 9 | 0.48 | 81 | 0.16 | | 2.51 | 0.01 | 0.05 | | 2 | 5 |
| S | 108002 | 1 | 37 | 1 | 58 | 0.1 | 8 | 5 | 411 | 3.47 | 7 | 5 | ND | ND | 24 | 1 | 2 | 2 | 74 | 0.46 | 9,10 | 6 | Ģ | 0.52 | 43 | 0.24 | 5 | 2.40 | 0.01 | 0.01 | 1 | 2 | 5 |
| S | 108003 | 1 | 58 | 4 | 71 | 0.1 | 10 | 10 | 716 | 3,40 | 8 | 5 | ND | NO | 31 | 1 | 2 | 2 | 90 | 0.51 | 0.13 | 6 | 7 | 0.82 | 123 | 0.21 | 5 | 2.29 | 0.01 | 0.04 | 1 | 2 | 5 |
| S | 105004 | 1 | 55 | 5 | 50 | 0.2 | 9 | 13 | 613 | 3.22 | 9 | 5 | NÐ | ND | 23 | 1 | 2 | 2 | 94 | 0.64 | 0.13 | 7 | ó | 0.63 | 46 | 0.21 | 5 | 1.72 | 0.01 | 0.01 | 2 | 2 | 5 |
| 5 | 106005 | 1 | 48 | 3 | 58 | 0.1 | 7 | 12 | 587 | 3.10 | 9 | 5 | ND | ND | 45 | 1 | 3 | 2 | 84 | 0.72 | 0.11 | 7 | 5 | 0.58 | 80 | 0.17 | 5 | 1.63 | 0.01 | 0.01 | 1 | 2 | 5 |
| S | 106005 | 1 | 30 | 4 | 52 | 0,4 | 7 | 13 | 936 | 3.52 | Ģ | 5 | ND | ND | 24 | 1 | 4 | 2 | 87 | 0.56 | 0.08 | 7 | 4 | 0.44 | 67 | 0.19 | 5 | 2.48 | 0.01 | 0.04 | 2 | 2 | 5 |
| S | 106007 | 3 | 17 | ò | 32 | 0.3 | 4 | 2 | 223 | 4.27 | 3 | 5 | NÐ | ND | 13 | 1 | 3 | 2 | 103 | 0.15 | 0.05 | 5 | 4 | 6.20 | 23 | 0.22 | 5 | 2.85 | 0.01 | 0.01 | 3 | 2 | 5 |
| S | 106008 | 2 | 19 | 2 | 54 | 0.3 | 8 | 13 | 1377 | 3.04 | 4 | 5 | NÐ | ND | 9 | 1 | 2 | 2 | 51 | 0.12 | 0.17 | 7 | 2 | 0.22 | 19 | 0.13 | 15 | 5.59 | 0.01 | 0.01 | 1 | 2 | 5 |
| S | 106009 | 1 | 31 | 1 | 46 | 0.2 | 7 | 9 | 276 | 4.41 | 5 | 5 | NS | ND | 19 | 1 | 2 | 2 | 114 | 0.20 | 0.14 | 6 | 4 | 0.34 | 22 | 0.25 | 12 | 5.61 | 0.01 | 0.01 | 1 | 2 | 5 |
| 4 | 106010 | 1 | 76 | 5 | 100 | 0.2 | 12 | 20 | 1288 | 5.35 | 11 | 5 | ND | ND | 66 | 1 | 2 | 2 | 156 | 2.49 | 0.17 | 7 | 6 | 1.64 | 25 | 0.36 | - 31 | 2.61 | 0.04 | 0.07 | 1 | 3 | 5 |
| 3 | 108011 | 2 | 48 | 1 | 47 | 0.1 | 11 | 15 | 901 | 3.61 | Ģ | 5 | NÐ | ND | 18 | 1 | 3 | 2 | 106 | 0.33 | 0.28 | 5 | ó | 0.58 | 30 | 0.22 | 7 | 3.72 | 0.01 | 0.01 | 2 | 3 | 5 |
| S | 108012 | 1 | 20 | 2 | 53 | 0.2 | 11 | 12 | 742 | 3.94 | Ŷ | 5 | ND | ND | 31 | 1 | 2 | 2 | 114 | 0.65 | 0.13 | ό | 6 | 0.81 | 100 | 0.22 | 5 | 2.24 | 0.01 | 0.02 | 1 | 2 | 5 |
| 5 | 106013 | l | 47 | 5 | 67 | 0.1 | 16 | 11 | 581 | 3.10 | 7 | 5 | ND | ND | 24 | 1 | 4 | 2 | 75 | 0.45 | 0.15 | 8 | 5 | 0.74 | 99 | 0.18 | 5 | 3.49 | 0.01 | 0.03 | 3 | 2 | 1990 |
| S | 105014 | ì | 38 | 4 | 42 | 0.2 | 10 | 5 | 308 | 3.75 | 7 | 5 | ND | ND | 18 | 1 | 3 | 2 | 95 | 0.22 | 0.10 | 8 | 5 | 0.47 | 33 | 0.24 | 5 | 3.66 | 0.01 | 0.01 | 2 | 2 | 5 |
| 5 | 106015 | 1 | 52 | 3 | 42 | 0.3 | 11 | 12 | 536 | 3.15 | 12 | 5 | ND | ND | 29 | 1 | 2 | 2 | 87 | 0.59 | 0.07 | 9 | 5 | 0.67 | 64 | 0.20 | 5 | 2.69 | 0.01 | 0.01 | 3 | î | 5 |
| ş | 106016 | 1 | 17 | 3 | 40 | 0.1 | 9 | 10 | 508 | 3.26 | 9 | 5 | ND | ND | 32 | 1 | 3 | 2 | 93 | 0.68 | 0,08 | 7 | 4 | 0.60 | 69 | 0.21 | 5 | 2.07 | 0.01 | 0.02 | 2 | 2 | 5 |
| S | 105017 | 1 | 53 | 14 | 48 | 0.2 | 8 | 7 | 681 | 3.06 | 13 | 5 | ND | ND | 55 | 1 | 3 | 2 | 77 | 1.31 | 0.10 | 5 | 3 | 0.55 | 51 | 0.18 | 5 | 2.88 | 0.01 | 0.04 | 2 | 2 | 10 |
| S | 106018 | 2 | 37 | 7 | 49 | 0.3 | 7 | 3 | 426 | 4.21 | 5 | 5 | ND | ND | 17 | 1 | 2 | 2 | 106 | 0.25 | 0.11 | 6 | 4 | 0.34 | 35 | 0.20 | 8 | 3.56 | 0.01 | 0.01 | 3 | 2 | 5 |
| S | 106019 | 1 | 102 | 5 | 70 | 0.3 | 14 | 14 | 939 | 4.30 | 10 | 5 | ND | NÐ | 20 | i | 2 | 2 | 120 | 0,49 | 0.37 | 5 | 5 | 0,88 | 50 | 0.22 | 5 | 4.64 | 0.01 | 0.05 | 3 | 3 | 5 |
| 5 | 105020 | 1 | 52 | 6 | 52 | 0.3 | 13 | 11 | 723 | 3,45 | 11 | 5 | ND | ND | 40 | 1 | 1 | 2 | 101 | 0.79 | 0.13 | 9 | 4 | 0.78 | 111 | 0.26 | 5 | 2.22 | 0.01 | 0.04 | 2 | 3 | 5 |
| S | 106021 | 1 | 38 | 1 | 39 | 0.2 | 10 | 11 | 460 | 2.91 | 9 | 5 | ₩D | NB | 29 | 1 | 3 | 4 | 89 | 0.61 | 0.12 | 6 | 5 | 0.55 | 94 | 0.20 | 5 | 1.58 | 0.01 | 0.02 | - 5 | 2 | 5 |
| 3 | 105022 | 1 | 69 | 4 | 49 | 0.2 | 12 | 15 | 604 | 3.20 | 7 | 5 | 50 | ND | 21 | 1 | 2 | 2 | 85 | ù.55 | 0.12 | 5 | 5 | 0.59 | 113 | 0.19 | 5 | 1.86 | 0.01 | 0.03 | 2 | 2 | 10 |
| A | 106023 | 2 | e | ٥ | 47 | 0.1 | 2 | 2 | 1648 | 1.82 | 6 | 5 | NŰ | ND | 27 | 1 | 2 | 7 | 7 | 1.11 | 0.05 | 6 | 7 | 0.28 | 79 | 0.17 | 5 | 0.74 | 0.01 | 0.19 | 3 | 1 | 5 |
| A | 106024 | 2 | 7 | 3 | 45 | 0.1 | 5 | 2 | 676 | 1.32 | 5 | 5 | ND | ND | 8 | 1 | 2 | 6 | 4 | 0.24 | 0.05 | 7 | 12 | 0.20 | 58 | 0.06 | 5 | 0.63 | 0.01 | 0.21 | 2 | 1 | 5 |
| <u>S</u> | 106025 | | 49 | 5 | 45 | 0.1 | | | 558 | 2.55 | 8 | 5 | ND | ND | 41 | 1 | | | - 58 | 0.80 | 0.09 | | | 0.42 | 45 | 0.21 | 5 | 1.59 | 0.01 | 0.06 | | ? | 5 |
| Ĥ | 106026 | 9 | 28 | 5 | 44 | 0.3 | 4 | 10 | 882 | 5.09 | 8 | 2 | ND | ND | 30 | 1 | 4 | 4 | 23 | 0.76 | 0.15 | 6 | 9 | 0.75 | 27 | 0.21 | 32 | 1.29 | 0.02 | 0.11 | 3 | 1 | 5 |
| A | 105027 | , | 5 | 3 | 46 | 0.1 | 4 | د | 400 | 1.56 | - 25 | 3 | NU | NQ | 14 | 1 | 2 | 2 | ; | 0.38 | 0.05 | • | 5 | 0.30 | 255 | 0.12 | 37 | 0.63 | 0.01 | 0.10 | 3 | 1 | 5 |
| S | 106026 | 1 | 13 | 4 | 37 | 0.3 | j r | 1 | 213 | 4.79 | 4 | 2 | ND | ND. | 10 | 1 | 2 | 2 | 79 | 0.10 | 0.06 | 4 | 3 | 0.19 | 20 | 0.15 | 5 | 2.13 | 0.01 | 0.01 | 2 | 2 | 5 |
| 5 | 106029 | 2 | 24 | 10 | 70 | 0.2 | 8 | 10 | 110 | 3.43 | 4 | 5 | 14Q | NU | 50 | 1 | 1 | 2 | 63 | 0.45 | 9.07 | ; | 3 | 0.65 | 39 | 0.20 | 5 | 2.23 | 0.01 | 0.04 | 2 | 2 | 5 |
| _5 | 106030 | 1 | | | | 0.6 | | 0 | 2121 | 3.34 | | | MD | NU | | | <u> </u> | <u> </u> | 48 | 0.15 | 0.13 | 11 | 4 | 0.21 | - 20 | 0.15 | 11 | 1.52 | 0.01 | 0.02 | <u>;</u> | 2 | |
| 5 | 106631 | 1 | 20 | 12 | 114 | 0.2 | 21 | 23 | 2000 | 0.0/ | 12 | 2 | NÐ | NU | 28 | 1 | 4 | ŕ | 66 | 0.72 | 0.11 | 8 | • | 1.10 | 156 | 0.20 | 5 | 5.45 | 0.01 | 0.15 | 2 | | 5 |
| 5 | 105037 | 1 | 50 | | 4/ | 0.1 | 0 C | 11 | 271 | 2.30 | 10 | 2 | NLC ND | ND | | 1 | í. | : | 81 | 0.82 | 0.10 | 5 | د . | 0.48 | 29 | 0.19 | 2 | 1.48 | 0.01 | 0.05 | 1 | 4 | 2 |
| 5 | 106033 | 1 | 83 | 12 | 87 | 0.1 | , Y | 10 | 1215 | ۷۲.۰ متر | 12 | Ĵ | 40 | NU | 11 | 1 | 4 | 4 | 121 | 1,44 | 0.15 | i | 4 | 0.81 | 48 | 0.21 | 2 | 4.26 | 0.01 | 0.0/ | 2 | 5 | 5 |
| 5 | 106034 | 1 | 24 | 3 | 00 60 | 0.1 | 5 | 6 | 200 | 2.34 | | 2 | NU | Nu | 15 | 1 | 4 | <i>1</i> | 5. | 9.29 | 0.05 | 5 | ÷ | 0.34 | 58 | 0.1/ | 5 | 2.00 | 0.01 | 0.01 | 2 | 1 | 5 |
| S | 106035 | 1 | 125 | 1 | 28 | V.1 | 15 | 10 | 180 | 2.22 | 11 | 3 | ND | ND | 49 | 1 | | 1 | - 4 | 1.17 | 2.12 | 1 | - 6 | 0.44 | 48 | 0.15 | 5 | 2.99 | 0.01 | 0.01 | 1 | 2 | 5 |

Hornbach CERTIFIED BY :

APPENDIX II

Affidavit of Expenses

AFFIDAVIT OF EXPENSES

This will certify that geological mapping, prospecting and geochemical sampling was carried out on the Xplore III and IV claims, Nitinat River Area, Alberni Mining Division, during the period February 18 to 21, 1991, to the value of the following:

Mobilization and Fieldwork

| Engineering fees | |
|------------------------------------|------------|
| D.G. Allen | \$1,050.00 |
| Vehicle rental, ferry | 398.03 |
| Room and board | 177.04 |
| Geochemical analyses | 385.00 |
| Field supplies | 32.00 |
| Report and preparation | |
| D.G. Allen | 350.00 |
| Draughting, typing, compilation | 427.50 |
| Maps, stationery, photocopying | 28.00 |

TOTAL

\$2,847.57

D.G. Allen, P. Eng. (B.C.)



