

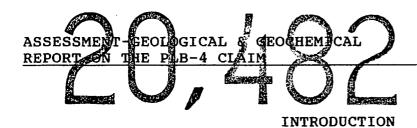
# Province of British Columbia

Ministry-of Energy, Mines and Petroleum Resources

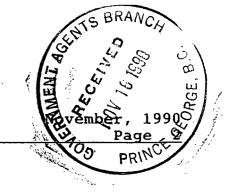
# ASSESSMENT REPORT TITLE PAGE AND SUMMARY

| TYPE OF REPORT/SURVEY(S)   | TOTAL COST   |
|--|--|
| GEOLOGICAL, GEOCHEMICAL  | \$ 2,025.08  |
| ERIC ERILL   | IATURE(S)  |
| PROPERTY NAME(S) P.LB L  |  |
| COMMODITIES PRESENT  |  |
| B.C. MINERAL INVENTORY NUMBER(S), IF KNOWN   |  |
| MINING DIVISION LIARD  LATITUDE 57° 22' N LON  |  |
| NAMES and NUMBERS of all mineral tenures in good standing (when wor (12 units); PHOENIX (Lot 1705); Mineral Lesse M 123; Mining or Certified PLB — L | k was done) that form the property. [Examples: TAX 1-4, FIRE 2. Mining Lease ML 12 (claims involved)]:   |
|  |  |
|  |  |
| OWNER(S)   |  |
| 11) La Montagne Explorations Ltd. (2)  | 15 BRANCH  |
| MAILING ADDRESS 3280-666 Burand St.  | MOUT AGE WE BENT AGE WON TO 1890 BY WED BY WE |
| Vancour B.C. V6C 248   | Z 2 2  |
| OPERATOR(S) (that is, Company paying for the work)   | MON BEEF TO SON PRINCES  |
| (1) NORANDA EXPORATION (2)   | (A)  |
| COMPANY, LIMITED   | OS PRI   |
| MAILING ADDRESS  |  |
| P.O.B. 2380 VANCOUVER, BC.   |  |
|  |  |
|  |  |
| SUMMARY GEOLOGY (lithology, age, structure, alteration, mineralization   | canica and min   |
| Tertiary volcanies and see   | limete. No mineral ration  |
| was o. 5. served   | •••••••••••  |
|  | ••••••••••   |
|  | •  |
| REFERENCES TO PREVIOUS WORK  |  |

# GEOLOGICAL BRANCH ASSESSMENT REPORT



also carried out on the claim.



The PLB-4 claim was staked by La Montagne Exploration Ltd. in August of 1988, to cover a drainage area identified to be anomalous for gold by the regional geochem release. In the spring of 1990 the property was optioned by Noranda Exploration Company, Limited and crews spent a few days on the property performing reconnaissance work. Eight rock and sixteen silt samples were collected by the crews. Prospecting and rudimentary mapping was

#### LOCATION & ACCESS

The PLB-4 claim is located approximately 45 km northwest of Bob Quinn lake and 7 km west of the Burrage airstrip located on Highway #37. The claim is situated at 57 degrees 22 minutes north and 130 degrees 25 minutes west and located on the Refuge lake map sheet NTS 104 G/08 in the Liard Mining Division.

Access to the property is achieved by helicopter from either the VIH Bob Quinn base or the Burrage air strip.

#### CLAIM STATISTICS

| Name  | Record # | Units | Record Date   | Owner         |
|-------|----------|-------|---------------|---------------|
| PLB-4 | 5114     | 18    | Aug. 18, 1988 | Noranda Expl. |

#### TOPOGRAPHY & VEGETATION

The area is characterized by rugged mountainous terrain with steep incised creek valleys and rounded glaciated peaks. Elevations range from 1490 metres to 1895 metres and the claim is in alpine.

Vegetation consists of short alpine grasses and some short scrub trees.

| LOG NO: //-28 | RD. |
|---------------|-----|
| ACTION:       |     |
|               |     |
| FILE NO:      |     |

### SUMMARY

The PLB-4 claim is underlain in the west by relatively flatlying clastic sediments, interstratified tuffs and capping andesitic volcanics of Lower to Middle Jurassic age; while the eastern half is underlain by older east dipping sediments and tuffs of probable Jurassic age. No significant mineralization was discovered on the PLB-4 claim.

## TABLE OF CONTENTS

| SUMMARY         |                                 |                | • • • • • • • •                       |     |     |      | . 1 |
|-----------------|---------------------------------|----------------|---------------------------------------|-----|-----|------|-----|
| INTRODUCTION .  | • • • • • • • • • • • • • • • • | • • • • • •    | ••••••                                |     |     |      | . 2 |
| LOCATION & ACCE | ss                              | • • • • • • •  | • • • • • • • •                       |     |     |      | . 2 |
| CLAIM STATISTIC | s                               |                | • • • • • • • •                       |     |     |      | . 2 |
| TOPOGRAPHY & VE |                                 |                | • • • • • • •                         |     |     |      |     |
| PREVIOUS WORK   |                                 | • • • • • • •  | • • • • • • • •                       |     |     |      | . 3 |
| REGIONAL GEOLOG | Υ                               | **** * * * * * | • • • • • • • •                       |     |     |      | . 3 |
| GEOLOGY         | •••••••                         |                | • • • • • • •                         |     |     |      | . 4 |
| GEOCHEMISTRY .  |                                 | • • • • • •    | • • • • • • • • • • • • • • • • • • • |     |     |      | . 4 |
| Rocks - me      | thod                            |                | • • • • • • • •                       |     |     |      | . 4 |
| - ob:           | servations                      |                | • • • • • • • •                       |     |     |      | . 4 |
| Silts - me      | thod                            | • • • • • • •  | • • • • • • • •                       |     |     |      | . 4 |
| - ob:           | servations                      | • • • • • • •  |                                       |     |     |      | . 5 |
| CONCLUSIONS     |                                 | • • • • • • •  | • • • • • • •                         |     |     |      | . 5 |
| RECOMMENDATIONS |                                 | • • • • • • •  | • • • • • • • •                       |     |     |      | . 5 |
| REFERENCES      | • • • • • • • • • • • • • • • • | • • • • • • •  |                                       |     |     |      |     |
|                 |                                 |                |                                       |     |     |      |     |
| APPENDIX I      | Statement of Wor                | k/Cost E       | 3reakdowr                             | 1   |     |      |     |
| APPENDIX II     | Statement of Qua                | lificati       | ions                                  |     |     |      |     |
| APPENDIX III    | Analytical Proce                | dure           |                                       |     |     |      |     |
| APPENDIX IV     | List of Analytic                | al Resul       | lts                                   |     |     |      |     |
| APPENDIX V      | Rock Sample Repo                | rts            |                                       |     |     |      |     |
|                 | ·                               |                |                                       |     |     |      |     |
| FIGURE 1        | Location Map                    | 1:             | 8,000,00                              | 0   | 2   | a    |     |
| FIGURE 2        | Claim Map                       |                | 50,000                                |     | 2   | b    |     |
| FIGURE 3        | Geology                         |                | 5,000                                 | (ir | ı p | ocke | et) |
|                 |                                 |                |                                       |     |     |      |     |

| LOG NO:  | 11-28                                 | RD. |
|----------|---------------------------------------|-----|
| ACTION:  |                                       |     |
| ,        |                                       |     |
| FATE NO. | · · · · · · · · · · · · · · · · · · · |     |
| FILE NO: |                                       |     |

#### GEOLOGICAL & GEOCHEMICAL REPORT

ON THE

PLB 4 CLAIM

Liard Mining Division N.T.S. 104 G/08

Longitude: 130° 25' W Latitude: 57° 22' N

NORANDA EXPLORATION COMPANY, LIMITED (no personal liability)

REPORT BY: TERRY CAMPBELL

ERIC GRILL

NOVEMBER, 1990

#### PREVIOUS WORK

1988: property staked by La Montagne to secure area containing anomalous silt samples from RGS.

1989: Gulf International Minerals optioned property and conducted a few man days of reconnaissance work. Reported in "Geological Report of the PLB-4 Claim" by Andris Kikauka for Gulf International Minerals, August 1989.

#### REGIONAL GEOLOGY

The area has been described by J. G. Souther in GSC Paper 71-44, Telegraph Creek Map-Area (Report and Map 11-1971).

The area is underlain by Lower to Middle Jurassic aged sediments and volcanics of the Hazelton Group. From the 1:250,000 scale map, two map units are identified in this area. They are:

### Map - Unit 14 (Lower to Middle Jurassic)

Map-Unit 14 comprises about 3,500 feet of friable black shale, interbedded with a few thin beds and concretionary layers of rusty weathering ironstone and siliceous siltstone, minor light grey quartzose sandstone and grit. The shale is overlain with structural conformity by massive volcanic rocks of map-Unit 15. The change is abrupt yet the contact reveals no evidence of faulting. It is concluded, therefore, that deposition of the shale was terminated by submarine eruptions that built elongate seamounts in the basin of deposition.

## Map - Unit 15 (Middle Jurassic)

The prominent north, northwesterly trending range of mountains that faces Iskut Valley north of Ball Creek consists entirely of submarine lavas. There the unit is at least 8,000 feet thick and comprises dark basaltic-andesite pillow lavas and related flows, dykes and sills. The lavas are monotonously uniform throughout, consisting of fine grained to aphanatic basalt or basaltic-andesite with small, sparse feldspar phenocrysts, clots of chlorite, and small carbonate or ziolite-filled vesicles. Locally the lava is hydrothermally altered to a nearly white, commonly spotted rock consisting entirely of a fine-grained mosaic of secondary, hydrous minerals.

#### **GEOLOGY**

The west side of the claim is predominantly underlain by relatively flat lying Eocene clastic sedimentary rocks ranging from coarse to fine pebble conglomerate to sandstone, siltstone and shale. Interstratified tuffaceous units containing andesitic and felsic volcanic, as well as sedimentary fragments and clasts are observed locally. Vesicular to non-vesicular andesite flows appear to cap this sequence in the southwest corner at the LCP. The east side of the claim is underlain by an older, more steeply west dipping sequence of black shales, siltstones and tuffs of probable Jurassic age. Mineralization of any significance is limited to only one small area at sample site #104363, and consists of up to 10% very fine grained disseminated and patchy masses of pyrite in the silty matrix of a Lapilli tuff unit, containing felsic volcanic rock fragments. Other "rusty" weathering outcrops are due to minor oxidation of iron in some rock units.

### GEOCHEMISTRY

#### Rocks:

Method -

During the 1990 field season a total of eight rocks were collected by Noranda personnel. The rock samples were taken from outcrops and float boulders, placed into plastic bags and shipped to Acme Analytical Laboratories Ltd., at 852 E. Hastings Street, Vancouver, B.C. for analysis. The samples were analyzed for 30 elements by ICP and Au by geochem.

Observations -

None of the rock samples have anomalous values.

#### Silts:

Method -

During the 1990 field season a total of 16 silt samples were collected by Noranda personnel. The silt samples were taken by hand from active stream channels, placed into kraft wet strength paper bags, dried, and shipped to Acme Analytical Laboratories Ltd., for analysis. The samples were analyzed for 30 elements by ICP and Au by geochem.

Observations -

None of the silt samples have anomalous values. A few samples returned weakly anomalous zinc and arsenic values (104358, 105443), but a mineralized source could not be located. These values may, at least in part, be due to high background levels in black shales.

#### CONCLUSIONS

The results from the rock and silt samples are disappointing and no further work is warranted at this time.

#### RECOMMENDATIONS

No further work is recommended at this time.

#### REFERENCES

Souther, J. G.: Telegraph Creek map-area British Columbia. G.S.C. Paper 71-44, Geological Survey of Canada, 1972.

# APPENDIX I STATEMENT OF COSTS

| REPO | RT TYPE: Geologi  | ical, Geochemical              |        | November, 1990 |
|------|---|--------------------------------|--------|----------------|
| a)   | WAGES:  |                                |        |                |
|      | No. of Days - 4<br>Rate per day - \$1<br>Dates from - Aug<br>Total: | 137.42<br>1 to Aug 17, 1990    |        | \$ 549.68      |
| b)   | FOOD & ACCOMMODAT   | TION:                          |        |                |
|      | No. of Days - 4 Rate per day - \$3 Dates from - Aug Total:          | 36.35<br>1 to Aug 17, 1990     |        | \$ 145.40      |
| c)   | TRANSPORTATION:   |                                |        |                |
|      | No. of Days - 4 Rate per day - \$1 Dates from - Aug Total:          | .98.50<br>1 to Aug 17, 1990    |        | \$ 794.00      |
| d)   | ANALYSIS:   |                                |        |                |
|      | 24 silt, rock f<br>geochem at \$14.00<br>Total:                     | For 30 element ICP<br>D/sample | and Au | \$ 336.00      |
| e)   | COST OF PREPARATI   | ON OF REPORT:                  |        |                |
|      | Drafting \$   | 100.00<br>50.00<br>50.00       | . ***  | \$ 200.00      |
| TOTA | L COST:   | •                              |        | \$ 2,025.08    |

#### STATEMENT OF QUALIFICATIONS

- I, Eric C. Grill, of 1928 West 35th Avenue, Vancouver, in the Province of British Columbia, do hereby certify that:
- I am a geologist in the employ of Noranda Exploration Company, Limited (no personal liability).
- I am a graduate of the University of British Columbia with a Bachelor of Science degree (honours) in Geology.
- 3. My primary employment since 1986 has been in the field of mineral exploration.
- This report is based on a property examination on August 8, 1990.
- 5. I have no interest in the property described herein, nor in the securities of any company associated with the property, nor do I expect to acquire any such interest.

Eric C. Grill, Geologist

#### ANALYTICAL METHOD DESCRIPTIONS FOR GEOCHEMICAL ASSESSMENT REPORTS

Revised:01/86

The methods listed are presently applied to analyse geological materials by the Noranda Geochemical Laboratory at Vancouver. (March, 1984)

#### Preparation of Samples

Sediments and soils are dried at approximately  $80^{\circ}$ C and sieved with a 80 mesh nylon screen. The -80 mesh (0.18 mm) fraction is used for analysis.

Rock specimens are pulverized to -120 mesh (0.13 mm). Heavy mineral fractions (panned samples) are analysed in its entirety, when it is to be determined for gold without further sample preparation. See addendum.

#### Analysis of Samples.

Decomposition of a 0.200 g sample is done with concentrated perchloric and nitric acid (3:1), digested for 5 hours at reflux temperature. Pulps of rock or core are weighed out at 0.2 g or less depending on the matrix of the rock, and twice as much acid is used for decomposition than that is used for silt or soil.

The concentrations of Ag, Cd, Co, Cu, Fe, Mn, Mo, Ni, Pb, V and In (all the group A elements of the fee schedule) can be determined directly from the digest (dissolution) with an atomic absorption spectrometer (AA). A Varian-Techtron Model AA-5 or Model AA-475 is used to measure elemental concentrations.

#### Elements Requiring Specific Decomposition Method

Antimony - Sb: 0.2 g sample is attacked with 3.3 mL of 6% tartaric acid, 1.5 mL conc. hydrochloric acid and 0.5 mL of conc. nitric acid, then heated in a water bath for 3 hours at 95 $^{\circ}$  C. Sb is determined directly from the acid solution with an AA-475 equipped with electrodeless discharge lamp (EDL).

Arsenic - As: 0.2 - 0.4 g sample is digested with 1.5 mL of 70 % perchloric acid and 0.5 mL of conc. nitric acid. A Varian AA-475 equipped with an As-EDL measures the arsenic concentration of the digest.

**Barium - Ba:** 0.1 g sample is decomposed with conc. perchloric, nitric and hydrofluoric acid. Atomic absorption using a nitrous oxide-acetylene flame determines Ba from the aqueous solution.

Bismuth - Bi: 0.2 g - 0.3 g is digested with 2.0 ml of perchloric 70% and 1.0 ml of conc. nitric acid. Bismuth is determined directly from the digest into the flame of the AA instrument c/w EDL.

Gold - Au: 10.0 g sample (Pan-concentrates see below) is digested with aqua regia (1 part nitric and 3 parts hydrochloric acid). Gold is extracted with Methyl iso-Butyl ketone (MIBK) from the aqueous solution. Gold is determined from the MIBK solution with flame AA.

**Magnesium - Mg:** 0.05-0.10 g sample is digested with 4 ml perchloric/nitric acid (3:1). An aliquot is taken to reduce the concentration to within the range of atomic absorption. The AA-475 with a nitrous oxide flame determines Mg from the aqueous solution.

Tungsten - W: 1.0 g sample sintered with a carbonate flux and thereafter leached with water. The leachate is treated with potassium thiocyanate. The yellow tungsten thiocyanate is extracted into tri-n-butyl phosphate. This permits colourimetric comparison with standards to measure tungsten concentration.

**Uranium - U:** An aliquot, taken from a perchloric-nitric (3:1) decomposition, usually from the multi-element digestion, is diluted with water and a phosphate buffer. This solution is exposed to laser light, and the luminescence of the uranyl ion is quantitatively measured on the UA-3 (Scintrex).

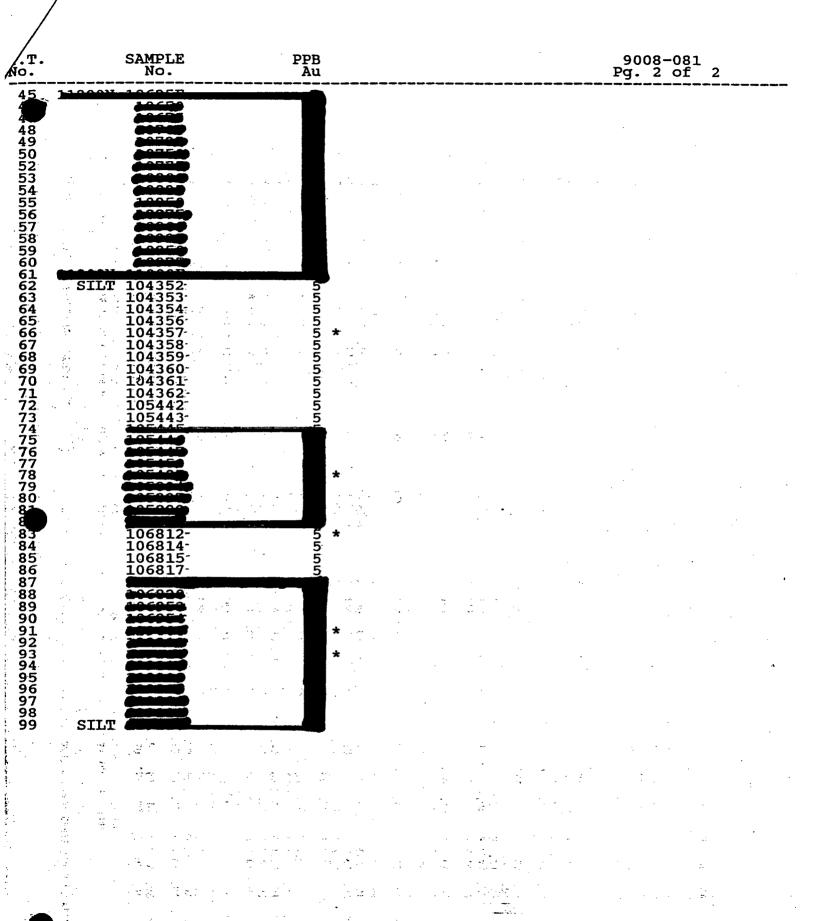
#### LOWEST VALUES REPORTED IN PPM

| Ag - 0.2 | Mn - 20 | Zn - 1  | Au - 0.01 (10PPB) |
|----------|---------|---------|-------------------|
| Cd - 0.2 | Mo - 1  | Sb - 1  | w - 2             |
| Co - 1   | Ni - 1  | As - 1  | u - 0.1           |
| Cu - 1   | Pb - 1  | Ba - 10 |                   |
| Fe - 100 | V - 10  | Bi - 1  |                   |

Noranda Exploration Co. Ltd. PROJECT 9008-081 289 FILE # 90-4453

Page :

| AMPLE#           | Mo<br>ppm | Cu<br>ppm | Pb<br>ppm | Zn<br>ppm  | Ag<br>ppm      | N i      | Co<br>ppm | Mn<br>ppm    |               | As<br>ppm                              |         | Au<br>ppm | Th<br>ppm    | Sr<br>ppm | Cd<br>ppm  | Sb<br>PPM | B (        | V<br>ppm       | Ca<br>%        | 9<br>%       | ppm<br>La  | Cr<br>ppm | Mg<br>%    | Ba<br>ppm  | 1!<br>%                                | ppm<br>B | Al<br>X      | Na<br>%    | К<br><b>%</b> р |
|------------------|-----------|-----------|-----------|------------|----------------|----------|-----------|--------------|---------------|--|---------|-----------|--------------|-----------|------------|-----------|------------|----------------|----------------|--------------|------------|-----------|------------|------------|--|----------|--------------|------------|-----------------|
| <u> </u>         |           | -14-      | -11       | 445        |                |          |           | <u> </u>     |               |  | <u></u> |           | <u></u>      |           |            |           |            | 45)            | 4.54           |              |            |           |            | -444       |  |          | <u> </u>     | -00-       |                 |
| 10000-10000-     |           | - 20      |           | -200       |                |          |           |              |               | occomposa<br>occomposa                 |         |           |              |           | F000000000 |           |            | Á Des          |                | Essabata (1  |            |           |            | -111       | ************************************** |          |              |            | 200             |
|                  |           | ===       |           | -          |                |          |           |              |               |  |         |           |              |           |            |           |            |                |                |              |            |           | -,,.       |            |  | . Î.,    |              |            | -               |
|                  |           | 2         |           |            |                | 42       |           | 207          | 7 02          |  |         | . 110     | <del>-</del> |           |            |           | Ť          | 422            | - 40           |              | -          |           | -12        | 707        |  | _        | 0.40         | -00        | - 24            |
| 4352-<br>4353-   | 4         | 26<br>34  | 13        | 157<br>381 | .3             | 12<br>24 | 12        | 297<br>747   | 3.50          | 17<br>23                               | 5       | ND<br>ND  | 3            | 52        | 1.4        | 2         | 2          | 24<br>34       | .31            | .060<br>.860 | 14<br>17   | - 8       | .17        | 303<br>153 | .01<br>.01                             | 2        | 1.03         | .02<br>.02 | .14             |
| 4354-<br>4356-   | 6         | 35<br>16  | 10<br>16  | 428<br>185 | .3             | 28<br>15 | 13<br>11  | 790<br>779   | 3.61<br>3.61  | 26<br>27                               | 5       | ND<br>ND  | 3<br>3       | 63<br>62  | 5.1<br>1.1 | 2         | 2          | 34<br>33<br>22 | .36<br>.31     | .074<br>.072 | 14<br>14   | 7<br>5    | .16        | 166<br>147 | .01                                    | 2<br>4   | .77<br>.55   | .01<br>.03 | .12             |
| 4357 -           | 2         | 17        | 12        | 211        | .1             | 14       | -10       | 406          | 2.91          | 22                                     | 5       | ND        | 3            | 51        | 1.6        | 3         | 2          | 22             | .27            | .063         | 14         | 4         | .15        | 111        | .01                                    | 3        | .55          | .02        | -10             |
| 4358 -<br>4359 - | 16        | 42<br>39  | 20<br>11  | 622<br>494 | .5             | 52<br>30 | 14        | 887<br>860   | 4.70          | 43<br>34                               | 5       | ND<br>ND  | 4            | 75<br>63  | 6.4<br>5.8 | . 4       | 2          | 41<br>37       | .37            | .090<br>.084 | 16<br>15   | 6         | .20        | 189<br>169 | .01<br>.01                             | 3 2      | .74<br>.81   | .03        | .16             |
| 4360-            | 3         | 24        | 10        | 288        | .5<br>.5<br>.3 | 19       | 10        | 564          | 2.78          | 23<br>30                               | 5       | ND        | 3            | 64        | 3.5        | . 3       | 2          | 21             | .28            | .056         | 12         | 5         | .21        | 149        | 01                                     | 3        | .68          | .02        | .12             |
| 4361 -           | °         | 46        | 14        | 390        |                | 26       |           | 950          |               |  |         | ND        | -            | 62        | 6.9        | 2         |            | 36             |                | .082         | 17         | •         | .27        | 193        | .01                                    |          | .95          | .02        | .14             |
| 4362 -           | 5<br>3    | 27<br>41  | 16<br>11  | 323<br>315 | .3<br>.5       | 23<br>30 | 13        | 855<br>713   | 3.92          | 39<br>17                               | 5       | ND<br>ND  | 3            | 71        | 3.3<br>3.7 | 3         | 2<br>3     | 36<br>42       | .34            | .089<br>.084 | 18<br>19   | 5<br>13   | .19        | 211<br>160 | .01                                    |          | .86<br>1.35  | .03        | .14             |
| )5443            | 14        | 54        | 12        | 834        | 6              | 52       | 18        | 1290         | 5.36          | 37                                     | 5       | ND        | 2            | 40        | 9,4        | 5         | 3          | 101            | .63            | .109         | 19         | 12        | .69        | 161        | .08                                    |          | 1.83         | .01        | .10             |
|                  | 1         |           |           |            |                |          |           | -1.04        |               |  |         |           |              |           |            |           |            |                |                |              |            |           |            |            |  |          |              |            | -10-1           |
| 77-41<br>7-41    | 3         | £4        | 13        | 201        |                | 10       |           | 7/7          | 5.37          | ₩>                                     |         | ND<br>NO  |              |           | <b>***</b> |           | - 2        | EL<br>467      | 1.30           |              | 10         | 40        | 120<br>130 | 172        |  | -        | 10L          | . 603      | 710             |
| 500/             |           | -07-      | -         | 466        |                |          |           | 745          | 0-45<br>(-70- | ······································ |         | -HD       | -            |           |            |           |            | 450            | - 67<br>4 - 47 | MEC)         | <b>8</b> 1 |           | 44         | 105        | ************************************** |          | 2.24         |            |                 |
| 9097             | -         | -64-      |           | 147        |                |          |           | 1950-        | 0.04          |  |         | - 410     | - 3          | -54       |            |           | 0          | -143           | 4-40-          |              | _44        | -         | -30-       | 07/        |  | - 3      | 7.07         | ^5         | OF.             |
|                  |           |           |           |            |                | ^_       |           | 246          |               | >>>>                                   |         |           |              |           |            |           | <u> </u>   | 420            | 4-66           |              | 47         | 10        |            | - 57       |  | - ĵ      | 4.0/         | -02        | 02.8            |
| 6812             | 6         | 48        | 10        | 459        | .6             | 31       | 13        | 746          |               | 23                                     | 5       | ND        | 2,           |           | 4.1        | 3         | 2          | 73             | .31            | .095         | 20         | 16        | .62        | 147        | .05                                    | 2        | 1.86         | .02        | .09             |
| 6814             | 5         | 39<br>58  | 11<br>15  | 337<br>459 | .6             | 27<br>38 | 13<br>20  | 794<br>959   | 4.49<br>4.55  | 17<br>26                               |         | ND<br>ND  | 3            | · 45      | 3.5<br>6.1 | 3<br>3    | 2          | 62<br>49       |                | .090<br>.091 | 19<br>21   | 14<br>15  | .57<br>.66 | 148<br>164 | .06<br>.01                             |          | 1.66<br>1.53 | .02        | .10<br>.15      |
| 6817 -           | 3         | 39        | 12        | 415        | .4             | 38       | 17        | 1021         | 3.60          | 17                                     | 5       | ND        | 2            | 64        | 5,1        | 2         | . 2        | 38             | .32            | .076         | 15         | 12        | .72        | 152        | .01                                    | 2        | 1.41         | .02        | .15             |
| <u> </u>         |           | _^^       |           | 2/2        | *******        | -64      | de        | -0/7<br>-0/7 | 7.04          | ************************************** |         |           |              | 70        |            |           | <b>7</b> . | -25-           |                |              | 4E-        |           |            | _470       | 2000                                   | - 7      | 70           | _^2_       | -44-38          |
| V0541            |           | 24        |           | 120        |                |          | 10        | 120/         | 7 4E          | ************************************** |         | A10       |              | 72        |            |           | 2          | 172            | 1 /7           |              | 47         |           | 206        | 117        |  |          | 2 27         | -02        | .07             |
|                  |           | 479       |           | 470        |                |          | _47       | 407/         | 4.00          |  |         | . No      | ^            | 70.00     |            |           |            | 42.7           | 4-20           | 471          | 47         | 7         | -45        | 422        | 10                                     |          | .2 F/        | 02         | 04              |
|                  |           | 450       | 40        | 711        | 88788888       |          |           | 25.0         | r_00_         | 8888 <b>***</b> **                     |         |           |              |           |            |           |            |                |                | KSPIC CS     | 4.7        | 27        | -04        | FOT        | 333374                                 |          | 4 77         | 04         | 06-8            |



ROCKS

FHUNE (004) 253-3150 FAX (604) 253-1/16

289 Result.

|                            |             | Ţ           | ore          | inde          | Е              | plo          | rat          | ior             | Co                  | . L.      | td.<br>Box  | PR(<br>2380, | 0JE(<br>1050 | CT E     | 9008<br>e, Va  | ncou       | B 1W<br>er BC | 289<br>V6B |         | 'ile                 | Ä             | 90-         | 7                 | 7 P                             | age            | Lo      |         | Kerult |
|----------------------------|-------------|-------------|--------------|---------------|----------------|--------------|--------------|-----------------|---------------------|-----------|-------------|--------------|--------------|----------|----------------|------------|---------------|------------|---------|----------------------|---------------|-------------|-------------------|---------------------------------|----------------|---------|---------|--------|
| SAMPLE#                    | Mo<br>ppm   | Cu<br>ppm   | Pb<br>ppm    |               | Ag<br>PPM      |              | Co<br>ppm    | Mn<br>ppm       |                     | As<br>Ppm |             | Au<br>ppm    | Th<br>ppm    |          | ppm<br>ppm     | \$b<br>ppm | ppm<br>ppm    | PPM<br>V   | Ca<br>X | P<br><b>X</b>        | La<br>ppm     | ppm<br>Cr   | , Mg<br>%         | Ba T<br>ppm '                   | K ppm          | Al<br>X | Na<br>X | K W A  |
| 104351<br>104355<br>104363 | 1<br>3<br>6 | 4<br>7<br>7 | 2<br>10<br>9 | 7<br>45<br>34 | .1<br>.2<br>.3 | 2<br>12<br>6 | 1<br>2<br>12 | 83<br>92<br>271 | .38<br>1.02<br>9.83 | 11        | 5<br>5<br>5 | ND<br>ND     | 1 2          | 92<br>27 | .2<br>.2<br>.2 | 2 2 2      | 2 2           | 47         |         | .001<br>.016<br>.272 | 2<br>11<br>12 | 4<br>8<br>9 | .01<br>.10<br>.23 | 5 .0<br>86 <b>\</b> 70<br>12 .0 | <b>8</b> 8     | .03     | .05     | .09 2  |
| 05444                      | 5           | 9           | 22           | 206           | .1             | 5            | 2            | 347             | 2.52                | 2         | 5           | ND           | 1            | 4        | 1.7            | 2          | 2             | 12         | .06     | .015                 | 37            | 4           | .42               | 51. 0                           | , <sub>}</sub> | a :84°  | .04     | .07 1  |
| 95.440<br>95.440<br>95.440 | 45          |             |              |               |                |              |              | 207             | 7.00                |           |             |              |              |          |                |            |               | - 47       | 10-00   |                      |               |             |                   |                                 |                |         | A7      | A7     |

106811 46 1.28 .094 .11 .015 .04 .052 .05 .038 13 12 5 8 .17 19 .96 9 .16 32 .10 57 .01 32 .26 2 .44 .07 .03 2 1.34 .02 .12 2 .64 .08 .02 106813 36 27 55 87 1.65 71 2.36 134 6.65 8 2 12 7 8 19 106816 106818

## NORANDA EXPLORATION COMPANY, LIMITED

PROPERTY Ball Creek - 289

N.T.S. 104 G/B

DATE Aug 8, 1990

## SAMPLE REPORT

| SAMPLE NO.      | LOCATION & DESCRIPTION                      | TYPE    | WIDTH    |     | ASSAYS                                |              |  |          |          | SAMPLED |                                       |
|-----------------|---|---------|----------|-----|---------------------------------------|--------------|--|----------|----------|---------|---------------------------------------|
|                 |   |         |          | Au  | Ag                                    | Cu           | Pb   | 弘        | As       | SP      | ВҮ                                    |
| 104351          | 20 x 20 x 20 cm angular block, black        | float   |          | 1   | 1.1                                   | 4            | 2  | 7        | 5        | 2       | EG                                    |
| ·               | Shale with chalced onic blue quarte veining |         |          | PPB | Pgm                                   | po-          | 88-  | PPM      | ppm      | 882     |                                       |
| <del>x' .</del> |   |         |          |     |                                       |              |  |          |          |         |                                       |
| 1043525         | Subanquilar 20x20 x 10 cm weakly            | float   |          | 1   | .2                                    | 7            | 10   | 45       | 11       | 2       | EG                                    |
|                 | runty weathering cherty wastern tuff        |         |          |     |                                       |              |  |          |          |         |                                       |
|                 | Fragments are subsammed to angular          |         | <u> </u> |     |                                       |              |  |          |          |         |                                       |
|                 |   |         |          |     |                                       |              |  |          |          |         |                                       |
|                 | cherty (siliceous) fragments/clasts of      |         |          |     |                                       |              |  |          |          |         |                                       |
|                 | pubble size. Matrix also siliceous.         |         | <b>-</b> |     |                                       | <del> </del> |  |          |          |         |                                       |
| 1201363         | Anderitic crystal tuff moderately           | Subcrap |          | ,   | ,3                                    | 7            | 9  | 34       | 10       | 2       | EG                                    |
| 70720           | Siliceons, with weakly brecriated           |         | <b>†</b> |     |                                       |              |  |          |          |         | <del></del>                           |
|                 | texture. Rusty weathering with              |         |          |     | · · · · · · · · · · · · · · · · · · · |              |  |          |          |         |                                       |
|                 | 2=10 To very fine grained pyrite in         |         |          | ·   |                                       |              |  |          |          |         | ·                                     |
| , <b>y</b>      | potting patches                             |         |          |     |                                       |              |  |          |          | i       | ·                                     |
|                 |   |         |          |     |                                       |              |  |          |          |         |                                       |
|                 |   |         |          |     |                                       |              |  |          |          |         |                                       |
| <del></del>     |   |         |          |     |                                       |              |  |          |          |         |                                       |
|                 |   |         |          |     |                                       |              |  |          |          |         |                                       |
| <del></del>     |   |         | <u> </u> |     |                                       | <u> </u>     | <del> </del>                                     |          |          |         |                                       |
| <u> </u>        |   |         |          |     | <del> </del>                          | <del> </del> |  |          |          |         |                                       |
|                 |   |         |          |     |                                       |              | <del>                                     </del> |          | <u> </u> |         |                                       |
|                 |   |         | -        |     | <del> </del>                          | <del> </del> |  | ļ        |          |         | · · · · · · · · · · · · · · · · · · · |
| ·               |   |         | <b> </b> |     |                                       | <del> </del> |  |          |          | ·       |                                       |
|                 |   | ·       | <u> </u> | 1   |                                       | <u> </u>     | <u> </u>   | <u> </u> |          |         | <u></u>                               |

## NORANDA EXPLORATION COMPANY, LIMITED

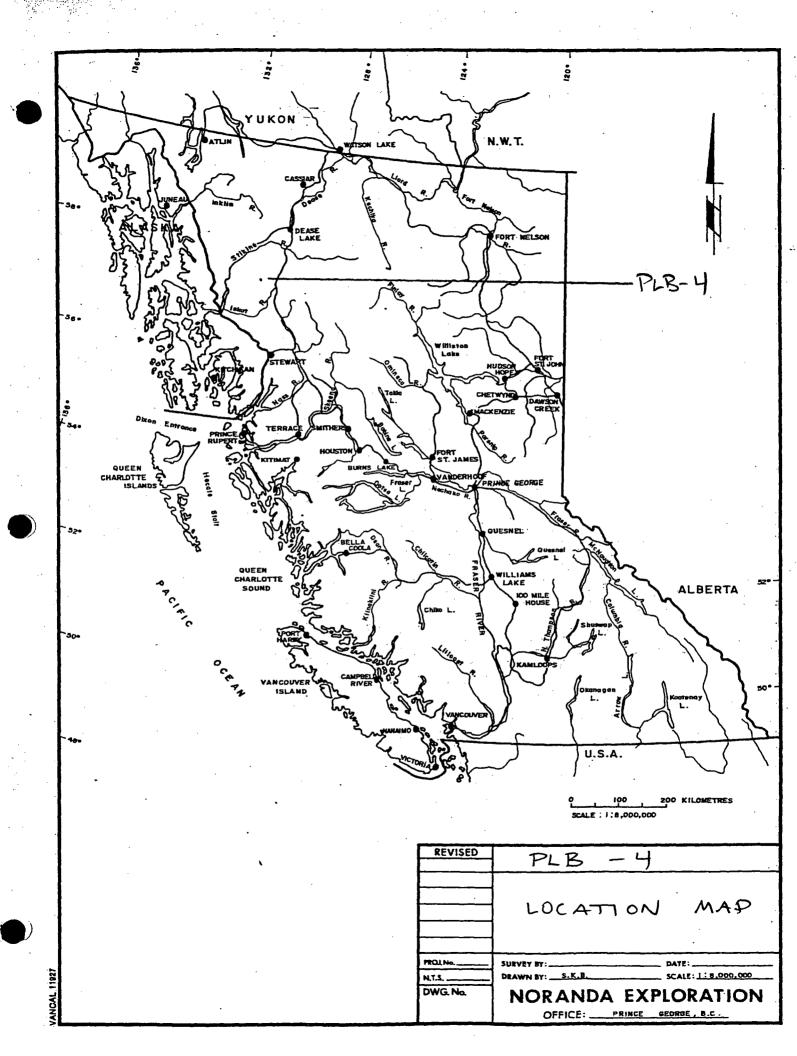
PROPERTY Ball creek (PLB-4cloim)

N.T.S. Aug 8/90

ROCK SAMPLE REPORT

PROJECT 289

| BANFLE NO.  LOCATION & DESCRIPTION  SOUNDED  TYPE  WIGHT  AN A3 CA 03 A0   |            |  |           |        |       |    | <u>:</u> |     | PI | HUJEU1: |    | ــــــــــــــــــــــــــــــــــــــ | <del></del> ·  |
|--|------------|--|-----------|--------|-------|----|----------|-----|----|---------|----|--|----------------|
| 106811 red weathered breezia with sub. ? float 1.2 13 18 87 14 2 C.S.  rounded clasts, play I harn/hunathe!  106813 red weathered crystatine siliceous — blood 1.2 8 23 36 7 2 C.S.  light grey rock possibly from gassan?  ligher up (some carbanete veining)  106816 red weathered dark tuffacrong rock 4½ float 1.2 14 12 27 12 3 C.S.  3m/1 date.  106818 light grey ish sugary techny rock ? chip 5m 1.3 10 11 55 16 4; C.S.  with loss of vuggy partied gasac outrop buried in red 501/2 the  Catent of roggly 10m?  1054444 seni-Rounded, fine grained light grey to 380 float — 1.1 9 22 206 2 2 11/2  blue unathered bash?, so dies, weathered  | SAMPLE NO. | LOCATION & DESCRIPTION   | %         | ŤΥΡΕ   | WIDTH |    |          |     |    |         |    |  |                |
| rounded clasts, play (harm/hamphile?)  106813 red weathered crystaline siliceous — flood 1 .2 8 23 36 7 2 C.O.  light grey rock possibly from gassan?  higher up (some corbanete veining)  106816 red weathered dork tuffaceous rock <ti .1="" .2="" .3="" 1="" 10="" 1054444="" 106818="" 10m?="" 11="" 1117<="" 12="" 14="" 16="" 2="" 206="" 22="" 27="" 3="" 3%="" 3me="" 4;="" 501="" 55="" 5m="" 9="" <.s.="" ?="" acut="" buried="" c.s.="" calent="" chip="" clipts.="" fine="" float="" gained="" gases="" grey="" in="" ish="" light="" little="" loss="" of="" outry="" red="" rock="" rogsly="" seni-randed,="" sugary="" td="" testing="" to="" vuggy="" with="" worked="" —=""><td></td><td></td><td>SULPHIDES</td><td></td><td></td><td>Au</td><td>Ag</td><td>لما</td><td>PB</td><td>Zn</td><td>As</td><td>2P</td><td></td></ti>                                    |            |  | SULPHIDES |        |       | Au | Ag       | لما | PB | Zn      | As | 2P                                     |                |
| rounded clasts, play (harm/hamphile?)  106813 red weathered crystaline siliceous — flood 1 .2 8 23 36 7 2 C.O.  light grey rock possibly from gassan?  higher up (some corbanete veining)  106816 red weathered dork tuffaceous rock <ti .1="" .2="" .3="" 1="" 10="" 1054444="" 106818="" 10m?="" 11="" 1117<="" 12="" 14="" 16="" 2="" 206="" 22="" 27="" 3="" 3%="" 3me="" 4;="" 501="" 55="" 5m="" 9="" <.s.="" ?="" acut="" buried="" c.s.="" calent="" chip="" clipts.="" fine="" float="" gained="" gases="" grey="" in="" ish="" light="" little="" loss="" of="" outry="" red="" rock="" rogsly="" seni-randed,="" sugary="" td="" testing="" to="" vuggy="" with="" worked="" —=""><td>106811</td><td>red weathered breccia with sub-</td><td>?</td><td>fleat</td><td></td><td>1</td><td>.2</td><td>/3</td><td>18</td><td>87</td><td>14</td><td>2</td><td>C.S.</td></ti> | 106811     | red weathered breccia with sub-  | ?         | fleat  |       | 1  | .2       | /3  | 18 | 87      | 14 | 2                                      | C.S.           |
| 106813 red weathered crystaline siliceous — blood 1 .2 8 23 36 7 2 C.S.  light grey rock possibly from gasson?  higher up (some corbante veining)  106816 red weathered dork taffaceous rock (tile float) 1 .2 14 12 27 12 3 C.S.  3me 11 chots.  106818 light grey ish sugary testing rock ? chip 5m 1 .3 10 11 55 16 4. C.S.  with 16ts of vuggy worked gasers  outure buried in red 50il. 18th  Catent of rogstly 10m?  | ·          | rounded clasts, play / horn/hematite?  |           | ]      |       |    |          |     | •  |         |    |  |                |
| light grey rock possibly from gassen?  Ligher up (Some corbanete veining)  106816 red weathered dork tuffercons rock <ti></ti> Small chits.  106818 light greyish sugary teeting rock? chip 5m 1 .3 10 11 55 16 4. C.S.  with lots of vuggy worked spaces outrap buried in red 50:// the  Catent of roysly 10m?  1054444 seni-Roanded, fine grained light grey to 390 Plant — 1 .1 9 22 206 2 2 1.1.7.  blue unablesed bould a policy weathered by a whiteigh red color  |            |  |           |        |       |    |          |     |    |         |    |  | :              |
| light grey rock possibly from gassen?  Ligher up (Some corbanete veining)  106816 red weathered dork tuffercons rock <ti></ti> Small chits.  106818 light greyish sugary teeting rock? chip 5m 1 .3 10 11 55 16 4. C.S.  with lots of vuggy worked spaces outrap buried in red 50:// the  Catent of roysly 10m?  1054444 seni-Roanded, fine grained light grey to 390 Plant — 1 .1 9 22 206 2 2 1.1.7.  blue unablesed bould a policy weathered by a whiteigh red color  | 106813     | red weathered crystaline siliceous   |           | Hoad   |       | 1  | .2       | 8   | 23 | 36      | 7  | 2                                      | C. <b>(9</b> ) |
| 1068/6 red weathered dark tuffaceous rock <t></t> Small dists.  1068/8 light greyish sugary tectury roch? chip 5m 1 .3 10 11 55 16 4. C.S.  with loss of vuggy weathered speace outcope buried in red 501/1 2th  Entent of roysly 10m?  105444 seni-Randad, Fine grained light grey to 370 Plant - 1 .1 9 22 206 2 2 1 11 ft  blue unaltered besit?, po diss, weathered  to a whiteigh red color   |            | light grey rock possibly from gassan?  |           | •      |       | ,  |          |     | ,  |         |    |  |                |
| 1068/6 red weathered dork tuffaceous rock   1068/6 red weathered dork tuffaceous rock  1.2 14 12 27 12 3 C.S.   3mall dista. 1068/8 light greyish sugary teating rock ? chip 5m 1 .3 10 1/1 55 16 44 .C.S.   with loss of vuggy weathered spaces outrap buried is red soil. 2mall<   |            | higher up (some carbonate veining)   |           |        |       |    |          |     |    |         |    |  |                |
| 106818 light greyish sugary testing roch? chip 5m 1.3 10 11 55 16 4. C.S.  with lots of vuggy postered spaces outrop buried in red 501/1 25  Catent of royally 10m?  105444 seni-Randed, fine grained light grey to 370 Acat - 1.1 9 22 206 2 2 11/1.  blue unabled builts, po dies, weathered to a whiteigh red color   |            |  |           |        |       |    |          |     |    |         |    |  |                |
| 106818 light greyish sugary teeting roch? chip 5m 1 .3 10 11 55 16 41. C.S. with lots of vuggy weatherd spaces outrop buried in red 50:/- Energy to 1054444 seni-Randed, fine grained light grey to 380 Aart - 1 .1 9 22 206 2 2 / N.f. blue unaltered busht 7, py diss, weathered to a whiteigh red color   | 106816     | red weathered dork tuffaceous rock   | <+%       | float  |       | 1  | .2       | 14  | 12 | 27      | 12 | 3                                      | C.S.           |
| with lots of vaggy weathered gosses outrap buried in red 50:/- 25  Catent of roughly 10m?  [05444 seni-Rounded, fine grained light grey to 3% Plant - 1 .1 9 22 206 2 2 [M.]  blue unablered bushti, py diss, weathered to a whiteigh red color  |            | Small dasta.   |           | ·      |       |    |          |     |    |         |    |  |                |
| with lots of vaggy weathered gosses outrap buried in red 50:/- 25  Catent of roughly 10m?  [05444 seni-Rounded, fine grained light grey to 3% Plant - 1 .1 9 22 206 2 2 [M.]  blue unablered bushti, py diss, weathered to a whiteigh red color  |            |  |           |        |       |    |          |     |    |         |    |  |                |
| with lots of vaggy weathered gosses outrap buried in red 50:/- 25  Catent of roughly 10m?  [05444 seni-Rounded, fine grained light grey to 3% Plant - 1 .1 9 22 206 2 2 [M.]  blue unablered bushti, py diss, weathered to a whiteigh red color  | 106818     | light greyish sugary teatury roch  | ?         | وزلمى  | 5 m   | /  | .3       | 10  | 11 | 55      | 16 | 4;                                     | C.S.           |
| outrop buried in red 50:/- Exercised to 105444 Series by 380 Plant - 1 .1 9 22 206 2 2 / M.T.  blue unabbered busht?, po diss, weathered to a whiteigh red color   |            | with lots of vuggy weathered spaces  |           |        |       |    | ļ<br>    |     |    |         |    |  |                |
| Extent of royally 10m?  105444 Seni-Rounded, Fine grained light grey to 390 Plant - 1 .1 9 22 206 2 2 1.1.7.  blue unablered busht?, ps diss, weathered  to a whiteish red color   |            | outersp buried in red soil.  |           |        |       |    |          |     |    |         |    |  |                |
| 105444 seni-Rounded, Fine grained light grey to 390 Plant - 1 -1 9 22 206 2 2 /N.7.  blue unaltered books?, po diss, weathered to a whiteish red color   |            |  |           |        |       |    | ·        |     |    |         |    |  |                |
| blue unaltered busilt?, py diss, weathered  to a whiteish red color  |            |  |           |        |       |    |          |     |    |         |    |  |                |
| to a whiteish red color  | 105444     | seni-Roundad, fine grained light grey to   | 3%        | Plant. |       | 1  | ./       | 9   | 22 | 206     | 2  | 2                                      | [N.7.          |
| to a whiteigh red color  |            | blue unabered busht?, p. diss, weathered   |           |        |       | _  |          |     |    |         |    |  |                |
|  |            |  |           |        |       |    |          |     |    | n       |    |  |                |
|  |            |  |           |        |       |    |          |     |    | -t.     | ·  |  | <u> </u>       |
|  |            | and the second s | 2 g T     |        |       |    |          |     |    | ·.      |    | -                                      |                |
|  |            |  |           | ·      |       |    |          |     |    |         |    |  |                |
|  |            |  |           |        |       |    |          |     |    |         |    |  |                |
|  |            |  |           |        |       |    |          |     |    |         |    |  |                |



) 台灣學學學學學學 PLB-4-1 REVISED PLB - 4 CLAIM SKETCH N.T.S. DWG. No. NORANDA EXPLORATION OFFICE: .

