# OPAP OP93-543

# GEOLOGICAL AND GEOPHYSICAL REPORT

# CASSON LAKE PROPERTY

# CURTIN TOWNSHIP

# SUDBURY MINING DIVISION

# SUDBURY DISTRICT

by

ROBERTA BALD, M.Sc., F.G.A.C.

JANUARY 22, 1994

LIVELY, ONTARIO

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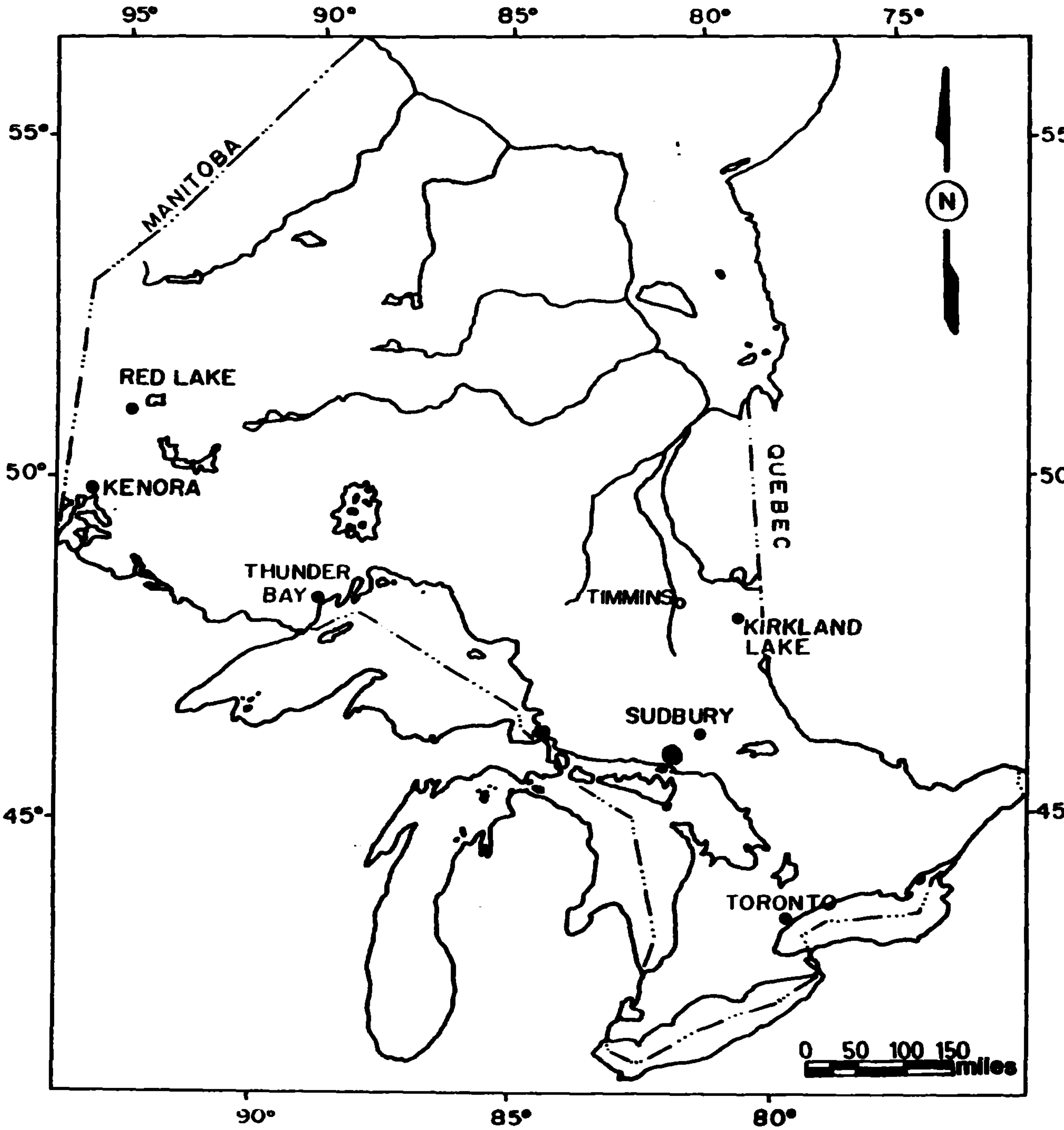
## LOCATION

The Casson Lake claim group is located about 65 km west of the city of Sudbury, Ontario (Figure 1 and 2). The property was staked to cover a section of an easterly-trending Nipissing metagabbro sill-like body about 250 m wide which hosts or is associated with copper, nickel and platinum group elements mineralization within the sill itself or gold mineralization within the Huronian sediments near the sill margins.

The claim group extends roughly 6 kilometers west from the eastern boundary of Curtin Township near the center of the township (Figure 3, back pocket). It lies in the Sudbury Mining Division, in the District of Sudbury. At least three small lakes lie within the claim group. An all-terrain vehicle road runs along the length of the two westernmost claims of the property, and goes through the past-producing Bousquet gold mine site. The claims are shown on claim map sheet G-3005 and NTS map sheet 41 I/4. The center of the claim group is located at 81°36' longitude West and 46°9' latitude North.

## ACCESS

The property can be reached from the town of Espanola by travelling 16 km south on Highway 6 to an all-season road (locally known as the Knights of Columbus Road) that runs due east. In the spring, a boat would be used to go from Charlton Lake, through Howry Creek then to a small unnamed lake just south of the claim group. From there, an all-terrain vehicle trail crosses the entire




**ONTARIO**

**LOCATION MAP**

fig.1

Date: Jan. 1993 | Scale: 1" = 150 miles

By: R. Bald

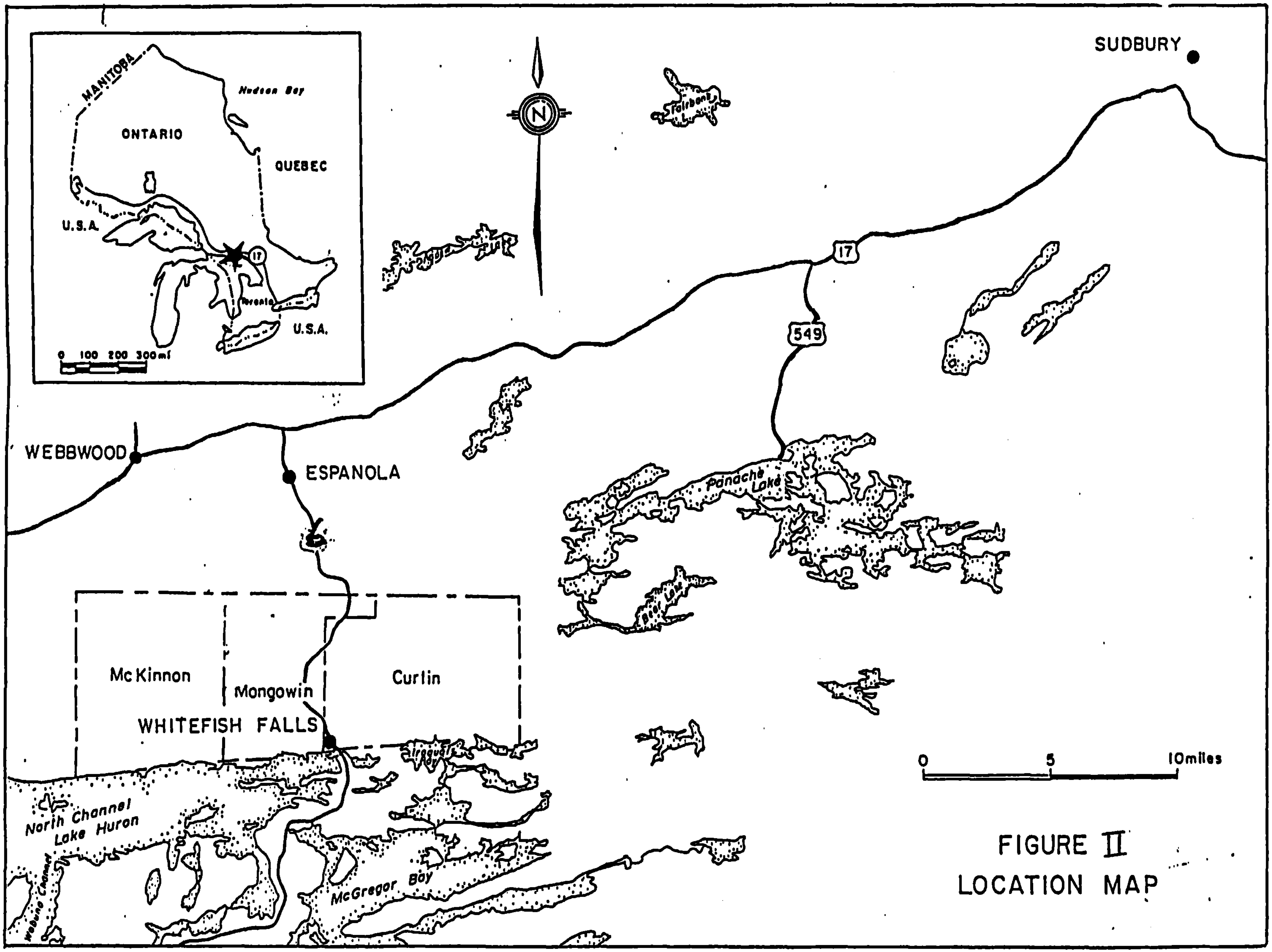



FIGURE II
LOCATION MAP

property. During the drier months, Howry Creek is not accessible and thus access would be obtained by boat to Miller Bay on Charlton Lake, then using all-terrain vehicles on the trail across the property.

OWNERSHIP OF THE CLAIMS

The fifteen claims are numbered as follows: S895241 to S895243 inclusive, S984683 to S984689 inclusive, S993985, S994573, S1136064, S1179657 (4 units) and S1179658 (14 units). These claims are jointly held by Dan Brunne and Roger Stringer, and an agreement between the author, Mr. Brunne and Mr. Stringer was made on March 21st, 1993, which enables the author to earn an ownership interest in all the claims described in this report. Most of the work done during this OPAP project were done on claims S1179658 and S1179658.

PREVIOUS WORK

At least three known gold showings occur on the property: the Bousquet Mine Occurrence, The Howry Creek Mine Occurrence and the Bridger Pond Occurrence. They occur in the Huronian sediments, locally close to the Nipissing gabbro contact.

In 1990 and 1991, power stripping and sampling were done on the present claims, south of Casson Lake, by Dan Brunne and Roger Stringer. Assays were also included in the report, with the highest results as follows: 0.051 oz/ton Au; 3400 ppb Pt; 4507 ppb Pd; 8400 ppm Cu; and 3400 ppm Ni.

In 1988, linecutting, geology and sampling with assays, and magnetometer and VLF-EM surveys were done by Roger Stringer on 11 of the most easterly claims.

In 1987, a combined helicopter-borne magnetic gradiometer and VLF-EM survey was done over an area centered just north of Casson Lake. The survey was done by Aerodat Limited for Stringer Explorations Ltd.

In 1987, BP Resources acquired 100% of a group of leased claims covering the west part of the present claim group. They did airborne and ground geophysics, linecutting and diamond drilling. Although the information was not filed with the Resident Geologist's office, the author has been told by Dan Brunne, who worked for BP during this time and who is one of the other co-holders of the present claim group, that some high PGE values were obtained during the drilling. The claims were abandoned in early 1993 since BP Resources closed shop.

During the 1970's, platinum, palladium and gold associated with copper and nickel sulphide mineralization were found in the Curtin Township Nipissing gabbro sill by Dr. Fred Jowsey and prospectors Stan White and Charles Myles. The discovery was drilled and some sections containing low copper and nickel with some PGEs were located.

## GEOLOGY

The property is underlain by Huronian metasediments of the Gowganda Formation intruded by a Nipissing gabbro sill about 250 m wide. The sediments consist mainly of white to pink coloured quartzite, but locally other units were observed: dark green to grey, fine-grained, locally finely laminated argillite; and conglomerate containing argillite and quartzite pebbles. A narrow mafic, magnetic dike was mapped in the Rainbow power stripped areas and coincides with the gold-bearing shear zone. A northwesterly-trending breccia zone was also noted in the western portion of the property. Part of this unit was mapped in the Pink Breccia power stripped area.

The gabbro sill is heterogeneous, fine to coarse-grained, locally pegmatoidal and locally magnetic. In one previously power stripped area, south of Casson Lake, local areas of coarser-grained material occur as distinctive "nodules".

WORK DONE

The pre-existing grid covering a portion of claims S1179657 and S1179658 cut in 1987 by BP Resources was re-established over land. The central portion of the grid is between two areas of swampy lakes. This portion of the property will be surveyed in the winter. Re-establishing the grid took longer than anticipated mainly because the six-year old lines were not blazed. However, most of the pickets were located, with careful searching. The lines were geologically mapped (Figure 3, back pocket). Over 70 samples were taken by the author, 45 of which were analyzed for a combination of gold, platinum, palladium, nickel, copper, ICP multi-element analyses and whole rock analysis. 26 samples, taken by Roger Stringer, and which had been analyzed for either platinum, and palladium, gold, or nickel and copper during his concurrent OPAP project, were subsequently analyzed during this project for whole rock and/or ICP multi-element package. One sample, # 150, from the high platinum zone on the AN-3 trench area, south of Casson Lake, on claim 984683, was analyzed for gold, platinum, palladium, whole rock and ICP multi-element package. Appendix 1 contains the assay certificates and the results of the ICP multi-element and the whole rock analyses, as well as sample locations and descriptions. One day was spent looking at thin sections from the gabbro sill. Some of the thin sections were made available to the author by M. Cosec of the Resident Geologist's office while others were from Dr. R. James and Dr. D. Peck from Laurentian University.

A VLF-EM survey was done on the grid, using Cutler, Maine as the station (Figure 4, back pocket). A total of 608 readings were taken, over 11.925 km of cut line. The survey was performed intermittently between June 22nd and September 3rd, 1993. The VLF-EM data was Fraser filtered and plotted, in order to pinpoint the conductors (Figure 5, back pocket). Appendix 2 contains the instrument specifications.

Several areas on the property were power stripped during Roger Stringer's concurrent OPAP project. Four of these areas were washed with a high-pressure washer and mapped in detail: the Pink Breccia area and Rainbow-1, Rainbow-2 and Rainbow-3 areas (Figure 6, back pocket).

Pink Breccia Area

An area east of L27E, 2+00N, called the Pink Breccia area, was mapped at a scale of 1:200. Several samples were taken but only one was analyzed for gold, platinum, palladium and the ICP multi-element package.

"Rainbow" shear zone: Rainbow-1, Rainbow-2 and Rainbow-3

A previously trenched gold-bearing shear zone, was located at L48E, 1+25N, during the mapping. This area was power stripped and called the Rainbow-1 area. Two more areas along strike were power stripped: near L49E, 1+00N, called Rainbow-2, to the southeast of Rainbow-1; and near L47E, 1+75N, called Rainbow-3, to the northwest of Rainbow-1. Extensive sampling of this gold-bearing shear zone indicates that it appears to be less than one metre wide but extends over 450m along strike. The highest gold value obtained was from a weathered piece of float taken by Cameco geologists during a property visit, and assayed 1.27 oz/ton Au. It was taken on the Rainbow-2 power stripped area, and reported in Roger Stringer's 1993-94 OPAP report.

The VLF-EM survey located several conductors, outlined by Fraser filtering the VLF-EM data, which are described in Table 1. The most significant VLF-EM conductors appears to be conductors B and M. These conductors occur in the same relative position within the gabbro sill, that is near the center, possibly indicating a layering of the sill. The conductors could possibly be caused by a concentration of sulphide or oxide along this horizon in the sill.

**TABLE 1: Description of the VLF-EM conductors**

| | | | | |
|---|---|---|---|---|
| Conductor A | one station | L26E | 075N | no o/c; no apparent reason |
| Conductor B | over 400m | L24E-L28E | 025S-025N | middle of gabbro sill; o/c |
| Conductor C | one station | L25E | 050S | swamp |
| Conductor D | over 100m | L27E-L28E | 100S-075S | possible topo |
| Conductor E | one station | L36E | 025N | creek/lake |
| Conductor F | one station | L36E | 225N | gabbro o/c |
| Conductor G | over 1100m | L37E-L48E | 100N-250N | several conductors ?; S of mine shaft |
| Conductor H | over 1000m | L38E-L48E | 050N-200N | creek/topo |
| Conductor I | one station | L39E | 400N | swamp |
| Conductor J | one station | L39E | 225N | topo? |
| Conductor K | one station | L40E | 300N | gabbro o/c |
| Conductor L | over 100m | L42E-L43E | 400N-425N | no o/c |
| Conductor M | over 100m | L42E-L43E | 325N | middle of gabbro sill; no o/c |
| Conductor N | over 200m | L45E-L47E | 350N | no o/c |
| Conductor O | over 900m | L46E-L55E | 450N-525N | topo? along road |
| Conductor P | one station | L49E | 150N | no o/c; in seds |
| Conductor Q | one station | L50E | 200N | no o/c |
| Conductor R | over 200m | L51E-L53E | 100N-075N | swamp/topo |

## RESULTS

The most significant result obtained from this project was the location of the previously trenched but apparently unreported gold-bearing shear zone, which extends from west of L47E to east of L51E, and trends from 110° to 130° AZ. The full extent of this zone is unknown.

Whole rock analyses of samples from the PGE-bearing gabbro sill, performed during this project, will be manipulated in order to determine the platinum group element potential. The copper-palladium ratios will be especially important (Barnes, et al., 1993).

The VLF-EM conductors will be field checked next summer for possible high sulphide zones in the gabbro, as well as possible gold-bearing shear zones, although the Rainbow shear zone was not located during the VLF-EM survey. The fact that the Rainbow Shear zone appears to be associated with a magnetic, mafic dike indicates that its extent may be successfully traced by doing a detailed magnetometer survey. A magnetometer survey had been planned for this project but unfortunately, was not performed because of lack of time. However, a survey is planned for the winter of 1994, based on the findings of this OPAP project.

## RECOMMENDATIONS

1- VLF-EM should be done over the water portions of the grid during the winter, in order to extend the conductors located during this project.

2- The magnetometer survey of the grid should be done including the portions over water. Special attention should be paid to the Rainbow shear zone, and any other magnetic zones located during the survey. The mag survey may possibly give the best results by having readings taken every 12.5m instead of the present 25m interval. This should be done to locate narrow zones such as the Rainbow shear zone.

3- A compilation of all the available data should be done, preferably using AutoCAD.

4- The whole rock data of the gabbro should be manipulated with a view to indicate PGE potential of the sill. One way to do this is to plot the copper/palladium ratios as outlined in Barnes, et al., 1993.

5- Prospecting should be done in the sediments in order to locate zones similar to the Rainbow zone. Magnetometer data may also be useful for this purpose.

## REFERENCES

Barnes, S.-J., Couture, J.-F., Sawyer, E.W. and Bouchaib, C., 1993: Nickel-Copper Occurrences in the Belleterre-Angliers Belt of the Pontiac Subprovince and the Use of Cu-Pd Ratios in Interpreting Platinum-Group Element Distributions; Economic Geology, vol. 88, pp. 1402-1418.

Card, K.D., 1976: Geology of the Espanola-Whitefish Falls Area, District of Sudbury, Ontario; Ontario Geological Survey, Report 131, 70 p. Accompanied by Maps 2311, 2312, scale 1:31,680 or 1 inch to 1/2 mile, and 2 charts.

**APPENDIX 1**

**ACCURASSAY LABORATORIES**
(A DIVISION OF ASSAY LABORATORY SERVICES, INC.)
ENVIRONMENTAL CHEMISTS, ANALYTICAL CONSULTANTS, MINERAL ASSAYERS

Box 426, 3 Industrial Dr., Kirkland Lake, Ontario, Canada P2N 3J1 - Tel.: (705) 567-3361
Branches at Thunder Bay, Timmins Fax: (705) 568-8368
President: Dr. George Duncan, M.Sc., Ph.D., M.C.I.C., M.R.S.C., C. Chem. (Ont.), C. Chem. (UK), A.R.C.S.T.

Ms. Roberta Bald,
P.O. Box 1572,
LIVELY, Ontario,
POM 2EO.

February 4, 1994.

Dear Roberta,

ICAP - WHOLE ROCK ANALYSIS.

It would appear that, in the rush to complete some of your whole rock and ICAP analysis on January 28th, 1994, that some data was transposed on the computer template. As a result, some of the certificates contain incorrect information and have been replaced as follows:-

| | Original Certificate # | Replaced by Certificate # |
|---|---|---|
| **ICAP Analysis** | | |
| | 49821 | 49864 |
| | 49822 | 49865 |
| | 49823 | 49866 |
| | 49826 | 49862 |
| | 49827 | 49863 |
| **Whole Rock Analysis** | 49828 | 49859 |
| | 49829 | 49860 |
| | 49830 | 49852 |

The revised certificates are enclosed. Please destroy the original certificates to avoid further confusion.
I apologize for any inconvenience this may have caused. If you require any further information, please do not hesitate to call me at 1-705-567-3361.

Yours Sincerely,

Gordon Collings.
Laboratory Manager.

# ACCURASSAY LABORATORIES
A DIVISION OF BARRINGER LABORATORIES LIMITED, REXDALE, ONTARIO
BOX 426
KIRKLAND LAKE, ONTARIO, CANADA P2N 3J1
TEL.: (705) 567-3361

President: Dr. GEORGE DUNCAN, M.Sc., Ph. D., C. Chem (Ont.), C. Chem (U.K.), M.C.I.C., M.R.S.C., A.R.C.S.T.


47570 **Certificate of Analysis**

Ms. Roberta Bald
P.O. Box 1572
LIVELY, Ontario
POM 2E0

Page 1
September 16, 1993

P.O. #:
Work Order #: 934390
Sample Date: September 9, 1993

| Customer # | Au ppb | Au Oz/T | Pt ppb | Pd ppb |
|---|---|---|---|---|
| 00026 | 13 | <0.001 | <15 | 18 |
| 00027 | | | 54 | 101 |
| 00028 | 5 | <0.001 | | |
| 00029 | <5 | <0.001 | | |
| 00030 | 13 | <0.001 | | |
| 00031 | <5 | <0.001 | | |
| 00032 | <5 | <0.001 | | |
| 00033 | 435 | 0.013 | | |
| 00034 | 14 | <0.001 | | |
| 00035 | 3007 | 0.088 | | |
| 00036 | 141 | 0.004 | | |
| 00037 | 8 | <0.001 | | |
| 00037 check | 7 | <0.001 | | |
| 00038 | 57 | 0.002 | | |
| 00051 | <5 | <0.001 | <15 | <10 |
| RB-5-93 | | | <15 | 13 |
| RB-6-93 | | | 37 | 40 |
| RB-8-93 | | | <15 | 15 |
| RB-10-93 | | | 28 | 13 |
| RB-11-93 | | | <15 | 10 |
| RB-16-93 | | | <15 | 14 |
| RB-18-93 | | | <15 | 25 |
| RB-18-93 check | | | <15 | 25 |
| RB-19-93 | | | 17 | 108 |

ASSOCIATION OF THE CHEMICAL PROFESSION OF ONTARIO
CHARTERED
Dr. G. Duncan
CHEMIST

Per: G. Duncan

LF-30

CUSTOMER COPY

XRAL

# X-RAY ASSAY LABORATORIES

A DIVISION OF SGS CANADA INC.
1885 LESLIE STREET • DON MILLS, ONTARIO M3B 3J4 • CANADA
TEL: (416)445-5755 TELEX: 06-986947 FAX: (416)445-4152

## CERTIFICATE OF ANALYSIS

## REPORT 25382

TO: ROBERTA BALD
BOX 1572
LIVELY, ONTARIO
P0M 2E0

CUSTOMER No. 2615

DATE SUBMITTED
1-Dec-93

REF. FILE 16906-L4

Total Pages 4

24 ROCKS, 2 CRUSHED ROCKS

| | METHOD | DETECTION LIMIT | | METHOD | DETECTION LIMIT |
|---|---|---|---|---|---|
| AU-1AT PPB | FADCP | 1. | AS PPM | ICP | 3. |
| BE PPM | ICP | .5 | SR PPM | ICP | .5 |
| NA % | ICP | .01 | Y PPM | ICP | .1 |
| MG % | ICP | .01 | ZR PPM | ICP | .5 |
| AL % | ICP | .01 | MO PPM | ICP | 1. |
| P % | ICP | .01 | AG PPM | ICP | .1 |
| K % | ICP | .01 | CD PPM | ICP | 1. |
| CA % | ICP | .01 | SN PPM | ICP | 10. |
| SC PPM | ICP | .5 | SB PPM | ICP | 5. |
| TI % | ICP | .01 | BA PPM | ICP | 1. |
| V PPM | ICP | 2. | LA PPM | ICP | .5 |
| CR PPM | ICP | 1. | TA PPM | ICP | 1. |
| MN PPM | ICP | 2. | W PPM | ICP | 10. |
| FE % | ICP | .01 | PB PPM | ICP | 2. |
| CO PPM | ICP | 1. | BI PPM | ICP | 3. |
| NI PPM | ICP | 1. | PT-1AT PPB | FADCP | 10. |
| CU PPM | ICP | .5 | PD-1AT PPB | FADCP | 1. |
| ZN PPM | ICP | .5 | | | |

*** UNLESS INSTRUCTED OTHERWISE WE WILL DISCARD PULPS IN 90 DAYS ***
AND REJECTS IN 30 DAYS FROM THE DATE OF THIS REPORT

DATE 09-Dec-93

CERTIFIED BY ............
Jean H.L. Opdebeeck, General Manager

XRAL



| SAMPLE | AU-1AT PPB | BE PPM | NA % | MG % | AL % | P % | K % | CA % | SC PPM |
|---|---|---|---|---|---|---|---|---|---|
| 006 | 4680 | <.5 | .09 | .16 | .12 | .05 | .05 | .53 | .7 |
| 021 | 2860 | 2.0 | .02 | 3.52 | 3.49 | .08 | .23 | .19 | 11.3 |
| 039 | 89 | .5 | .09 | .86 | .32 | .02 | .06 | 1.33 | 6.4 |
| 040 | 65 | .5 | .09 | .50 | .35 | .02 | .08 | .80 | 1.9 |
| 041 | 26 | 1.7 | .03 | 5.91 | .09 | .01 | .02 | 7.52 | 29.3 |
| 042 | 319 | .8 | .08 | 3.79 | .12 | .03 | .02 | 8.07 | 20.4 |
| 043 | 1790 | 1.0 | .07 | 2.47 | .57 | .05 | .06 | 4.25 | 15.3 |
| 126 | 93 | 1.4 | .05 | 2.73 | 1.82 | .08 | .23 | 4.21 | 5.4 |
| 127 | 13 | 1.0 | .09 | 2.72 | .41 | .07 | .23 | 5.02 | 17.3 |
| 128 | 29 | .6 | .09 | 1.63 | .37 | .07 | .04 | 2.88 | 14.6 |
| 129 | 226 | 1.3 | .06 | 1.65 | .35 | .07 | .10 | 4.20 | 19.5 |
| 130 | 279 | 1.3 | .07 | .84 | .45 | .04 | .06 | 1.12 | 14.7 |
| 131 | 118 | 1.3 | .09 | 1.06 | 1.56 | .10 | .22 | .60 | 9.1 |
| 132 | 269 | .8 | .11 | .66 | .41 | .06 | .05 | .88 | 10.5 |
| 133 | 98 | <.5 | .02 | .02 | .03 | <.01 | <.01 | .03 | <.5 |
| 134 | 10 | <.5 | .03 | .37 | .01 | <.01 | <.01 | .89 | 2.7 |
| 135 | 210 | .8 | .08 | 1.72 | .19 | .02 | .08 | 3.68 | 10.5 |
| 136 | 7 | <.5 | .11 | .88 | .20 | .03 | .05 | 1.98 | 4.4 |
| 137 | 368 | <.5 | .05 | .83 | .88 | <.01 | .08 | .40 | 1.4 |
| 138 | 402 | .5 | .04 | .71 | .81 | .01 | .11 | .39 | 1.6 |
| 139 | 275 | .6 | .04 | 1.20 | 1.33 | .02 | .06 | .57 | 1.5 |
| 140 | 665 | .7 | .04 | 1.03 | 1.14 | .01 | .09 | .36 | 1.4 |
| 141 | 72 | <.5 | .03 | 1.48 | 1.47 | .02 | .07 | .38 | 2.0 |
| 142 | 179 | .6 | .04 | 1.48 | 1.50 | .01 | .15 | 4.40 | 2.8 |
| 143 | 165 | .5 | .04 | 1.04 | 1.13 | .02 | .11 | .41 | 2.2 |
| RB-17-93 | 7 | <.5 | .08 | .17 | .12 | .05 | .05 | .54 | .7 |
| D 006 | 5070 | <.5 | .08 | .16 | .12 | .05 | .05 | .53 | .7 |
| D 131 | 122 | 1.4 | .09 | 1.07 | 1.57 | .10 | .22 | .62 | 9.1 |
| D 143 | 174 | .5 | .03 | 1.03 | 1.11 | .02 | .11 | .39 | 2.1 |

AU-1AT PPB - ASSAY PERFORMED ON 30 GRAM ALIQUOT
D - QUALITY CONTROL DUPLICATE

| SAMPLE | TI % | V PPM | CR PPM | MN PPM | FE % | CO PPM | NI PPM | CU PPM | ZN PPM |
|---|---|---|---|---|---|---|---|---|---|
| 006 | <.01 | 4 | 133 | 111 | 1.33 | 51 | 62 | 31.9 | 56.0 |
| 021 | .01 | 151 | 67 | 314 | 9.49 | 55 | 161 | 14.8 | 79.9 |
| 039 | .01 | 37 | 146 | 651 | 2.77 | 30 | 49 | 6.1 | 4.9 |
| 040 | <.01 | 11 | 148 | 186 | 2.16 | 144 | 86 | 5.1 | 1.9 |
| 041 | <.01 | 43 | 51 | 6410 | 12.3 | 35 | 71 | 3.3 | 5.6 |
| 042 | <.01 | 34 | 86 | 1650 | 5.07 | 188 | 125 | 5.1 | .8 |
| 043 | .01 | 38 | 92 | 1480 | 5.88 | 203 | 141 | 6.2 | 4.4 |
| 126 | .01 | 77 | 79 | 849 | 6.93 | 51 | 49 | 29.2 | 20.9 |
| 127 | .04 | 150 | 95 | 2550 | 5.20 | 22 | 33 | 17.1 | 10.1 |
| 128 | .02 | 55 | 123 | 1940 | 3.55 | 39 | 33 | 213 | 8.6 |
| 129 | <.01 | 97 | 78 | 2420 | 7.23 | 55 | 50 | 14.8 | 3.5 |
| 130 | .02 | 94 | 152 | 2700 | 7.04 | 147 | 116 | 14.5 | 8.6 |
| 131 | .01 | 95 | 89 | 1130 | 5.48 | 38 | 60 | 32.2 | 13.7 |
| 132 | .02 | 55 | 144 | 1520 | 4.52 | 76 | 91 | 8.3 | 4.8 |
| 133 | <.01 | 5 | 218 | 54.0 | .86 | 42 | 23 | 7.4 | 1.0 |
| 134 | <.01 | 8 | 252 | 285 | .96 | 13 | 8 | 5.3 | 2.5 |
| 135 | <.01 | 38 | 122 | 1260 | 5.17 | 208 | 140 | 5.2 | .8 |
| 136 | <.01 | 14 | 161 | 613 | 1.60 | 13 | 16 | 22.7 | 2.8 |
| 137 | .01 | 14 | 121 | 163 | 3.16 | 81 | 2240 | 6150 | 71.3 |
| 138 | .01 | 16 | 120 | 151 | 3.08 | 72 | 2550 | 5990 | 68.4 |
| 139 | .03 | 25 | 129 | 294 | 3.83 | 85 | 2100 | 5840 | 64.5 |
| 140 | .03 | 24 | 133 | 236 | 4.36 | 76 | 2580 | 7160 | 70.7 |
| 141 | .04 | 36 | 249 | 311 | 2.94 | 43 | 816 | 1820 | 41.1 |
| 142 | .02 | 47 | 174 | 450 | 4.08 | 81 | 1690 | 6150 | 42.7 |
| 143 | .03 | 28 | 190 | 231 | 3.26 | 76 | 1680 | 3850 | 50.8 |
| RB-17-93 | <.01 | 4 | 133 | 112 | 1.33 | 53 | 69 | 40.1 | 54.7 |
| D 006 | <.01 | 5 | 131 | 110 | 1.26 | 51 | 62 | 30.3 | 55.6 |
| D 131 | .01 | 96 | 89 | 1100 | 5.47 | 37 | 62 | 34.0 | 13.8 |
| D 143 | .03 | 28 | 186 | 221 | 3.28 | 76 | 1730 | 3880 | 51.5 |

D - QUALITY CONTROL DUPLICATE

| SAMPLE | AS PPM | SR PPM | Y PPM | ZR PPM | MO PPM | AG PPM | CD PPM | SN PPM | SB PPM |
|---|---|---|---|---|---|---|---|---|---|
| 006 | 380 | 8.8 | 2.2 | 15.8 | <1 | .3 | <1 | <10 | <5 |
| 021 | 186 | 4.1 | 2.7 | 12.8 | <1 | .2 | <1 | <10 | <5 |
| 039 | <3 | 104 | 2.4 | 4.7 | <1 | .2 | <1 | <10 | <5 |
| 040 | 58 | 7.2 | 1.3 | 5.4 | <1 | <.1 | <1 | <10 | <5 |
| 041 | <3 | 74.9 | 5.6 | <.5 | <1 | 1.2 | <1 | <10 | <5 |
| 042 | 133 | 49.5 | 4.4 | 7.5 | <1 | .5 | <1 | <10 | <5 |
| 043 | 67 | 51.6 | 5.2 | 10.0 | <1 | .7 | <1 | <10 | <5 |
| 126 | 20 | 43.8 | 6.9 | 9.6 | <1 | <.1 | <1 | <10 | <5 |
| 127 | <3 | 66.3 | 3.8 | 6.0 | <1 | .4 | <1 | <10 | <5 |
| 128 | 3 | 59.4 | 4.4 | 6.9 | 1 | .5 | <1 | <10 | <5 |
| 129 | 6 | 66.6 | 4.8 | 8.3 | <1 | .6 | <1 | <10 | <5 |
| 130 | 27 | 22.9 | 4.1 | 5.8 | <1 | .5 | <1 | <10 | <5 |
| 131 | 20 | 7.8 | 7.5 | 29.3 | <1 | .2 | <1 | <10 | <5 |
| 132 | 17 | 33.7 | 4.2 | 6.9 | 1 | .3 | <1 | <10 | <5 |
| 133 | 27 | 1.4 | .6 | 1.4 | 2 | .4 | <1 | <10 | <5 |
| 134 | 5 | 14.6 | .8 | <.5 | <1 | .3 | <1 | <10 | <5 |
| 135 | 35 | 69.4 | 2.9 | 4.3 | <1 | .2 | <1 | <10 | <5 |
| 136 | 10 | 39.7 | 3.4 | 6.0 | <1 | .3 | <1 | <10 | <5 |
| 137 | 75 | 5.1 | .9 | .6 | <1 | 1.8 | <1 | <10 | <5 |
| 138 | 43 | 5.4 | 1.1 | 1.8 | <1 | 1.8 | <1 | <10 | <5 |
| 139 | 114 | 4.6 | 1.5 | 1.4 | <1 | 1.8 | <1 | <10 | <5 |
| 140 | 55 | 3.9 | 1.5 | 1.2 | <1 | 2.1 | <1 | <10 | <5 |
| 141 | 63 | 4.3 | 1.7 | .9 | <1 | .7 | <1 | <10 | <5 |
| 142 | 198 | 10.6 | 2.7 | 3.1 | <1 | 1.8 | <1 | <10 | <5 |
| 143 | 77 | 5.5 | 2.1 | 1.6 | <1 | 1.3 | <1 | <10 | <5 |
| RB-17-93 | 397 | 8.9 | 2.3 | 15.2 | <1 | .6 | <1 | <10 | <5 |
| D 006 | 390 | 9.0 | 2.4 | 16.8 | <1 | .2 | <1 | <10 | <5 |
| D 131 | 20 | 7.9 | 7.6 | 28.5 | <1 | .3 | <1 | <10 | <5 |
| D 143 | 70 | 5.2 | 2.0 | 1.6 | <1 | 1.3 | <1 | <10 | <5 |

D - QUALITY CONTROL DUPLICATE

| SAMPLE | BA PPM | LA PPM | TA PPM | W PPM | PB PPM | BI PPM | PT-1AT PPB | PD-1AT PPB |
|---|---|---|---|---|---|---|---|---|
| 006 | 12 | 7.9 | <1 | <10 | 2 | <3 | <10 | 2 |
| 021 | 48 | 8.9 | 4 | <10 | <2 | 11 | <10 | 1 |
| 039 | 811 | 3.4 | 2 | <10 | <2 | <3 | 13 | 7 |
| 040 | 49 | 3.7 | <1 | <10 | <2 | <3 | 19 | 4 |
| 041 | 28 | 15.8 | 4 | <10 | 6 | <3 | <10 | <1 |
| 042 | 18 | 4.6 | <1 | <10 | <2 | <3 | <10 | <1 |
| 043 | 12 | 7.1 | <1 | <10 | 4 | <3 | <10 | <1 |
| 126 | 23 | 9.4 | 2 | <10 | <2 | <3 | <10 | <1 |
| 127 | 484 | 5.6 | <1 | <10 | <2 | <3 | <10 | <1 |
| 128 | 670 | 4.8 | 2 | <10 | <2 | <3 | <10 | 2 |
| 129 | 85 | 10.0 | 4 | <10 | 3 | <3 | <10 | <1 |
| 130 | 64 | 8.7 | 2 | <10 | 3 | <3 | <10 | <1 |
| 131 | 48 | 18.9 | 4 | <10 | <2 | 6 | <10 | <1 |
| 132 | 543 | 8.9 | <1 | <10 | <2 | <3 | <10 | <1 |
| 133 | 19 | 5.0 | 1 | <10 | <2 | <3 | 11 | 7 |
| 134 | 209 | 3.0 | <1 | <10 | 3 | <3 | <10 | <1 |
| 135 | 19 | 5.2 | 1 | <10 | 5 | 4 | <10 | 5 |
| 136 | 9 | 7.7 | 2 | <10 | <2 | <3 | <10 | 1 |
| 137 | 15 | 3.0 | <1 | <10 | 3 | <3 | 401 | 947 |
| 138 | 20 | 3.0 | 1 | <10 | 4 | <3 | 411 | 1000 |
| 139 | 10 | 3.7 | 2 | <10 | 3 | <3 | 359 | 749 |
| 140 | 15 | 3.7 | 3 | <10 | <2 | <3 | 541 | 1360 |
| 141 | 13 | 2.6 | <1 | <10 | <2 | <3 | 143 | 207 |
| 142 | 27 | 5.3 | 2 | <10 | <2 | <3 | 288 | 443 |
| 143 | 21 | 3.6 | 3 | <10 | 2 | <3 | 295 | 452 |
| RB-17-93 | 11 | 7.4 | <1 | <10 | 3 | <3 | <10 | 5 |
| D 006 | 11 | 8.4 | <1 | <10 | <2 | <3 | <10 | 2 |
| D 131 | 48 | 18.1 | 3 | <10 | <2 | 6 | 10 | <1 |
| D 143 | 20 | 3.3 | 2 | <10 | 2 | <3 | 322 | 508 |

PT-1AT PPB - ASSAY PERFORMED ON 30 GRAM ALIQUOT
PD-1AT PPB - ASSAY PERFORMED ON 30 GRAM ALIQUOT
D - QUALITY CONTROL DUPLICATE

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# 49811 Certificate of Analysis

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Page 1
January 28, 1994

Work Order #: 934390B
Date Received: January 5, 1994

**Whole Rock Analysis**

| ICAP | % SiO2 | % Al2O3 | % Fe2O3 | % MgO | % CaO | % Na2O |
|---|---|---|---|---|---|---|
| BALD 027 | 50.76 | 12.59 | 10.09 | 9.85 | 9.61 | 2.09 |
| BALD 031 | 48.46 | 12.41 | 14.54 | 6.16 | 4.47 | 3.84 |
| BALD 032 | 47.94 | 11.82 | 14.15 | 6.17 | 5.40 | 3.95 |
| BALD 036 | 46.82 | 8.36 | 17.31 | 4.23 | 6.29 | 5.14 |
| BALD 037 | 40.81 | 8.30 | 10.70 | 6.62 | 10.36 | 5.55 |
| BALD 051 | 67.22 | 0.01 | 28.02 | 3.35 | 0.30 | 0.08 |
| RB - 5 - 93 | 50.88 | 12.14 | 9.69 | 10.28 | 11.46 | 1.53 |
| RB - 8 - 93 | 50.18 | 11.27 | 12.82 | 11.04 | 9.65 | 1.08 |
| RB - 10 - 93 | 50.54 | 11.61 | 12.25 | 10.72 | 10.10 | 1.54 |
| RB - 16 - 93 | 50.87 | 11.05 | 11.46 | 11.17 | 11.89 | 1.03 |
| RB - 18 - 93 | 50.48 | 10.85 | 13.41 | 11.00 | 9.77 | 0.82 |

| ICAP | % K2O | % P2O5 | % TiO2 | % MnO | % BaO | % Cr2O3 |
|---|---|---|---|---|---|---|
| BALD 027 | 1.40 | 0.103 | 0.504 | 0.083 | 0.031 | 0.116 |
| BALD 031 | 0.86 | 0.237 | 2.091 | 0.083 | 0.016 | 0.104 |
| BALD 032 | 0.68 | 0.227 | 2.055 | 0.092 | 0.014 | 0.056 |
| BALD 036 | 0.24 | 0.231 | 1.423 | 0.108 | 0.011 | 0.057 |
| BALD 037 | 0.26 | 0.077 | 0.410 | 0.192 | 0.009 | 0.053 |
| BALD 051 | 0.08 | 0.039 | 0.030 | 0.125 | 0.009 | 0.065 |
| RB - 5 - 93 | 0.68 | 0.080 | 0.486 | 0.083 | 0.017 | 0.159 |
| RB - 8 - 93 | 0.65 | 0.053 | 0.438 | 0.117 | 0.019 | 0.065 |
| RB - 10 - 93 | 0.61 | 0.071 | 0.481 | 0.100 | 0.017 | 0.151 |
| RB - 16 - 93 | 0.54 | 0.060 | 0.446 | 0.133 | 0.018 | 0.125 |
| RB - 18 - 93 | 1.06 | 0.052 | 0.478 | 0.117 | 0.029 | 0.070 |

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# 49812 Certificate of Analysis

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January 28, 1994

Work Order #: 934390B
Date Received: January 5, 1994

**Whole Rock Analysis**

| ICAP | % SrO | % LOI | % Total |
|---|---|---|---|
| BALD 027 | 0.010 | 2.0 | 99.2 |
| BALD 031 | 0.005 | 6.0 | 99.3 |
| BALD 032 | 0.009 | 5.7 | 98.3 |
| BALD 036 | 0.014 | 8.8 | 99.0 |
| BALD 037 | 0.017 | 15.4 | 98.8 |
| BALD 051 | 0.001 | 0.7 | 100.0 |
| RB - 5 - 93 | 0.011 | 2.4 | 99.9 |
| RB - 8 - 93 | 0.009 | 3.1 | 100.6 |
| RB - 10 - 93 | 0.010 | 2.9 | 101.2 |
| RB - 16 - 93 | 0.011 | 2.5 | 101.4 |
| RB - 18 - 93 | 0.012 | 3.2 | 101.4 |

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Page 1
January 28, 1994

Work Order #: 934390A
Date Received: January 5, 1994

| ICAP | ppm Ag | % Al | ppm As | ppm Au | ppm Ba | ppm Be |
|---|---|---|---|---|---|---|
| BALD 027 | 0.2 | 1.29 | 22 | <3 | 46 | <1 |
| BALD 031 | 0.1 | 2.61 | 44 | <3 | 83 | <1 |
| BALD 032 | 0.1 | 2.70 | 44 | <3 | 78 | <1 |
| BALD 036 | 0.1 | 0.56 | 53 | <3 | 64 | <1 |
| BALD 037 | 0.1 | 0.35 | 34 | <3 | 52 | <1 |
| BALD 051 | 0.1 | 0.07 | 6 | <3 | 32 | <1 |
| RB - 5 - 93 | 0.2 | 1.25 | 30 | <3 | 32 | <1 |
| RB - 8 - 93 | 0.5 | 1.65 | 29 | <3 | 32 | <1 |
| RB - 10 - 93 | 0.6 | 1.63 | 52 | <3 | 30 | <1 |
| RB - 16 - 93 | 0.4 | 1.38 | 20 | <3 | 23 | <1 |
| RB - 18 - 93 | 0.5 | 2.07 | 63 | <3 | 71 | <1 |

| ICAP | ppm Bi | % Ca | ppm Cd | ppm Co | ppm Cr | ppm Cu |
|---|---|---|---|---|---|---|
| BALD 027 | <3 | 0.56 | <1 | 26 | 111 | 407 |
| BALD 031 | <3 | 2.88 | <1 | 60 | 180 | 19 |
| BALD 032 | <3 | 3.22 | <1 | 65 | 94 | 59 |
| BALD 036 | <3 | 3.91 | <1 | 87 | 52 | 17 |
| BALD 037 | <3 | 6.58 | <1 | 32 | 71 | 14 |
| BALD 051 | <3 | 0.09 | <1 | 2 | 17 | 15 |
| RB - 5 - 93 | <3 | 0.56 | <1 | 30 | 189 | 246 |
| RB - 8 - 93 | <3 | 0.28 | <1 | 58 | 34 | 1662 |
| RB - 10 - 93 | <3 | 0.65 | <1 | 61 | 121 | 1357 |
| RB - 16 - 93 | <3 | 0.46 | <1 | 37 | 115 | 942 |
| RB - 18 - 93 | <3 | 0.43 | <1 | 85 | 53 | 1615 |

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January 28, 1994

Work Order #: 934390A
Date Received: January 5, 1994

| ICAP | % Fe | ppm Hg | ppm La | % Mg | ppm Mn | ppm Mo |
|---|---|---|---|---|---|---|
| BALD 027 | 2.40 | <1 | 1 | 1.24 | 293 | 3 |
| BALD 031 | 8.41 | <1 | 9 | 3.12 | 1110 | 6 |
| BALD 032 | 8.27 | <1 | 14 | 2.99 | 1319 | 7 |
| BALD 036 | 8.85 | <1 | 3 | 2.25 | 1539 | 5 |
| BALD 037 | 5.25 | <1 | 3 | 3.70 | 2826 | 4 |
| BALD 051 | 7.11 | <1 | 3 | 0.17 | 104 | 3 |
| RB - 5 - 93 | 1.96 | <1 | 1 | 1.22 | 282 | 3 |
| RB - 8 - 93 | 3.73 | <1 | 1 | 1.66 | 377 | 3 |
| RB - 10 - 93 | 3.37 | <1 | 2 | 1.60 | 398 | 3 |
| RB - 16 - 93 | 2.40 | <1 | 1 | 1.32 | 293 | 3 |
| RB - 18 - 93 | 4.20 | <1 | 1 | 1.98 | 482 | 2 |

| ICAP | % Na | ppm Ni | ppm P | ppm Pb | ppm Sb | % Si |
|---|---|---|---|---|---|---|
| BALD 027 | 0.07 | 202 | 178 | 14 | 6 | 0.28 |
| BALD 031 | 0.13 | 53 | 1021 | 35 | 24 | 0.46 |
| BALD 032 | 0.13 | 48 | 1018 | 34 | 25 | 0.41 |
| BALD 036 | 0.13 | 99 | 863 | 38 | 12 | 0.27 |
| BALD 037 | 0.13 | 80 | 185 | 33 | 6 | 0.23 |
| BALD 051 | 0.01 | 3 | 246 | 3 | 2 | 0.30 |
| RB - 5 - 93 | 0.07 | 85 | 185 | 14 | 9 | 0.46 |
| RB - 8 - 93 | 0.04 | 452 | 166 | 6 | 2 | 0.32 |
| RB - 10 - 93 | 0.06 | 414 | 177 | 16 | 9 | 0.34 |
| RB - 16 - 93 | 0.06 | 234 | 171 | 11 | 2 | 0.26 |
| RB - 18 - 93 | 0.05 | 543 | 187 | 17 | 2 | 0.43 |

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January 28, 1994

Work Order #: 934390A
Date Received: January 5, 1994

| ICAP | ppm Sr | % Ti | ppm V | ppm W | ppm Zn |
|---|---|---|---|---|---|
| BALD 027 | 8 | 0.08 | 27 | 3 | 21 |
| BALD 031 | 31 | 0.04 | 264 | 23 | 60 |
| BALD 032 | 36 | 0.20 | 266 | 22 | 56 |
| BALD 036 | 102 | 0.06 | 176 | 18 | 21 |
| BALD 037 | 119 | 0.06 | 54 | 13 | 15 |
| BALD 051 | 5 | <0.01 | 4 | 0 | <1 |
| RB - 5 - 93 | 9 | 0.07 | 28 | 9 | 20 |
| RB - 8 - 93 | 5 | 0.05 | 26 | 6 | 30 |
| RB - 10 - 93 | 6 | 0.04 | 27 | 10 | 33 |
| RB - 16 - 93 | 8 | 0.04 | 20 | 5 | 22 |
| RB - 18 - 93 | 10 | 0.08 | 40 | 8 | 30 |

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Page 1
January 28, 1994

Work Order #: 944009
Date Received: January 5, 1994

| SAMPLE I.D. | Au ppb | Au Oz/T | Pt ppb | Pd ppb |
|---|---|---|---|---|
| BALD 150 | 534 | 0.016 | 1036 | 1846 |

Per: G. Duncan

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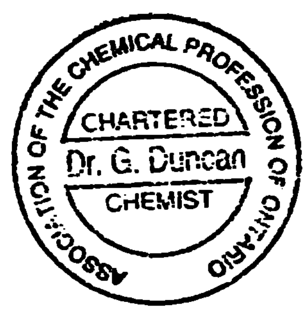
Page 1
January 28, 1994

Work Order #: 944009B
Date Received: January 5, 1994

| WHOLE ROCK | % $SiO_2$ | % $Al_2O_3$ | % $Fe_2O_3$ | % MgO | % CaO | % $Na_2O$ |
|---|---|---|---|---|---|---|
| BALD 150 | 27.07 | 14.26 | 35.84 | 6.85 | 2.35 | 0.01 |

| WHOLE ROCK | % $K_2O$ | % $P_2O_5$ | % $TiO_2$ | % MnO | % BaO | % $Cr_2O_3$ |
|---|---|---|---|---|---|---|
| BALD 150 | 2.90 | 0.010 | 2.358 | 0.210 | 0.043 | 1.098 |

| WHOLE ROCK | % SrO | % LOI | % Total |
|---|---|---|---|
| BALD 150 | 0.001 | 5.6 | 98.6 |

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# 49802 Certificate of Analysis

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Page 1
January 28, 1994

Work Order #: 944009A
Date Received: January 5, 1994

| ICAP | ppm Ag | % Al | ppm As | ppm Au | ppm Ba | ppm Be |
|---|---|---|---|---|---|---|
| BALD 150 | 0.9 | 7.45 | 81 | <3 | 452 | <1 |

| ICAP | ppm Bi | % Ca | ppm Cd | ppm Co | ppm Cr | ppm Cu |
|---|---|---|---|---|---|---|
| BALD 150 | <3 | 0.74 | 2 | 246 | 5187 | 4874 |

| ICAP | % Fe | ppm Hg | ppm La | % Mg | ppm Mn | ppm Mo |
|---|---|---|---|---|---|---|
| BALD 150 | 17.51 | 5 | 6 | 3.22 | 1696 | 13 |

| ICAP | % Na | ppm Ni | ppm P | ppm Pb | ppm Sb | % Si |
|---|---|---|---|---|---|---|
| BALD 150 | 0.07 | 2612 | 245 | 82 | 55 | 0.73 |

| ICAP | ppm Sr | % Ti | ppm V | ppm W | ppm Zn |
|---|---|---|---|---|---|
| BALD 150 | 7 | 0.54 | 1008 | 43 | 157 |

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49859

# Certificate of Analysis

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Page 1
January 28, 1994

Work Order #: 930091B
Date Received: January 5, 1994

| WHOLE ROCK | % SiO2 | % Al2O3 | % Fe2O3 | % MgO | % CaO | % Na2O |
|---|---|---|---|---|---|---|
| 000001 | 49.79 | 13.43 | 8.88 | 6.64 | 7.81 | 1.51 |
| 000004 | 67.52 | 12.90 | 5.33 | 2.60 | 3.08 | 4.07 |
| 000010 | 52.37 | 14.33 | 9.32 | 7.33 | 8.79 | 2.82 |
| 000013 | 51.14 | 11.80 | 10.01 | 10.44 | 9.43 | 1.43 |
| 000014 | 50.99 | 16.48 | 8.45 | 7.17 | 11.33 | 1.57 |
| 195819 | 52.01 | 12.31 | 9.97 | 9.55 | 9.55 | 1.27 |
| 195820 | 49.46 | 11.92 | 11.27 | 9.25 | 10.92 | 1.17 |
| 195821 | 50.89 | 11.74 | 9.09 | 10.56 | 11.02 | 0.94 |
| 195824 | 52.08 | 12.07 | 9.66 | 8.95 | 9.87 | 1.48 |
| 195825 | 51.33 | 12.59 | 9.61 | 9.36 | 10.43 | 1.18 |
| 195826 | 50.60 | 12.62 | 10.10 | 9.12 | 10.54 | 1.81 |
| 195827 | 50.85 | 12.36 | 9.62 | 9.55 | 4.95 | 1.60 |

| WHOLE ROCK | % K2O | % P2O5 | % TiO2 | % MnO | % BaO | % Cr2O3 |
|---|---|---|---|---|---|---|
| 000001 | 1.10 | 0.146 | 0.658 | 0.132 | 0.024 | 0.041 |
| 000004 | 0.68 | 0.268 | 0.478 | 0.135 | 0.022 | 0.033 |
| 000010 | 0.85 | 0.141 | 0.530 | 0.197 | 0.024 | 0.046 |
| 000013 | 0.78 | 0.111 | 0.418 | 0.177 | 0.023 | 0.069 |
| 000014 | 1.10 | 0.157 | 0.465 | 0.145 | 0.026 | 0.077 |
| 195819 | 1.06 | 0.121 | 0.499 | 0.183 | 0.022 | 0.059 |
| 195820 | 0.60 | 0.103 | 0.636 | 0.181 | 0.016 | 0.102 |
| 195821 | 0.75 | 0.108 | 0.447 | 0.164 | 0.019 | 0.112 |
| 195824 | 1.19 | 0.156 | 0.614 | 0.197 | 0.032 | 0.072 |
| 195825 | 0.66 | 0.216 | 0.476 | 0.184 | 0.014 | 0.056 |
| 195826 | 0.25 | 0.118 | 0.449 | 0.178 | 0.011 | 0.055 |
| 195827 | 0.20 | 0.104 | 0.477 | 0.159 | 0.010 | 0.058 |

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Page 2
January 28, 1994

Work Order #: 930091B
Date Received: January 5, 1994

| WHOLE ROCK | % SrO | % LOI | % Total |
|---|---|---|---|
| 000001 | 0.010 | 9.6 | 99.8 |
| 000004 | 0.024 | 3.4 | 100.5 |
| 000010 | 0.013 | 2.3 | 99.1 |
| 000013 | 0.012 | 2.5 | 98.3 |
| 000014 | 0.015 | 2.0 | 100.0 |
| 195819 | 0.012 | 2.3 | 98.9 |
| 195820 | 0.014 | 2.7 | 98.3 |
| 195821 | 0.010 | 2.3 | 98.1 |
| 195824 | 0.011 | 3.6 | 100.0 |
| 195825 | 0.011 | 2.6 | 98.7 |
| 195826 | 0.012 | 2.3 | 98.2 |
| 195827 | 0.003 | 7.4 | 97.3 |

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A DIVISION OF BARRINGER LABORATORIES LIMITED, REXDALE, ONTARIO
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49864

# Certificate of Analysis

Ms. Roberta Bald
P.O. Box 1572
LIVELY, Ontario
POM 2E0

Page 1
January 28, 1994

Work Order #: 930091C
Date Received: January 5, 1994

| ICAP | ppm Ag | % Al | ppm As | ppm Au | ppm Ba | ppm Be |
|---|---|---|---|---|---|---|
| 000001 | 0.1 | 2.91 | 138 | <3 | 36 | <1 |
| 000004 | 0.1 | 1.42 | 22 | <3 | 28 | <1 |
| 000010 | 0.1 | 1.06 | 38 | <3 | 33 | <1 |
| 000013 | 0.1 | 1.27 | 21 | <3 | 19 | <1 |
| 000014 | 0.1 | 0.92 | 14 | <3 | 19 | <1 |
| 195819 | 0.1 | 1.58 | 14 | <3 | 32 | <1 |
| 195820 | 0.4 | 0.93 | 17 | <3 | 15 | <1 |
| 195821 | 0.1 | 1.19 | 22 | <3 | 21 | <1 |
| 195824 | 0.2 | 0.85 | 25 | <3 | 26 | <1 |
| 195825 | 0.1 | 1.97 | 18 | <3 | 24 | <1 |
| 195826 | 0.1 | 1.20 | 34 | <3 | 13 | <1 |
| 195827 | 0.1 | 2.78 | 120 | <3 | 31 | <1 |

| ICAP | ppm Bi | % Ca | ppm Cd | ppm Co | ppm Cr | ppm Cu |
|---|---|---|---|---|---|---|
| 000001 | <3 | 3.81 | <1 | 42 | 53 | 93 |
| 000004 | <3 | 1.35 | <1 | 23 | 64 | 86 |
| 000010 | <3 | 0.44 | <1 | 32 | 30 | 76 |
| 000013 | <3 | 0.27 | <1 | 26 | 38 | 212 |
| 000014 | <3 | 0.26 | <1 | 24 | 52 | 524 |
| 195819 | <3 | 0.44 | <1 | 26 | 31 | 299 |
| 195820 | <3 | 0.28 | <1 | 62 | 50 | 2006 |
| 195821 | <3 | 0.42 | <1 | 26 | 63 | 565 |
| 195824 | <3 | 0.37 | <1 | 23 | 41 | 429 |
| 195825 | <3 | 0.70 | <1 | 30 | 22 | 180 |
| 195826 | <3 | 0.24 | <1 | 36 | 22 | 89 |
| 195827 | <3 | 2.24 | <1 | 70 | 72 | 630 |

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49865 **Certificate of Analysis**

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*LIVELY, Ontario*
*P0M 2E0*


*January 28, 1994*

*Work Order #:* *930091C*
*Date Received:* *January 5, 1994*

| ICAP | % Fe | ppm Hg | ppm La | % Mg | ppm Mn | ppm Mo |
|---|---|---|---|---|---|---|
| 000001 | 4.85 | <1 | 5 | 2.88 | 801 | <1 |
| 000004 | 3.22 | <1 | 15 | 1.28 | 731 | 1 |
| 000010 | 2.21 | <1 | 1 | 1.00 | 287 | <1 |
| 000013 | 2.49 | <1 | 1 | 1.32 | 252 | 1 |
| 000014 | 1.95 | <1 | 1 | 0.76 | 200 | 1 |
| 195819 | 2.51 | <1 | 2 | 1.22 | 278 | 1 |
| 195820 | 2.68 | <1 | <1 | 0.75 | 174 | 1 |
| 195821 | 1.97 | <1 | 1 | 1.10 | 226 | 1 |
| 195824 | 1.99 | <1 | 2 | 0.88 | 244 | 1 |
| 195825 | 2.44 | <1 | 2 | 1.09 | 226 | 1 |
| 195826 | 2.43 | <1 | 1 | 1.15 | 252 | 1 |
| 195827 | 4.50 | <1 | 4 | 3.30 | 722 | 2 |

| ICAP | % Na | ppm Ni | % P | ppm Pb | ppm Sb | % Si |
|---|---|---|---|---|---|---|
| 000001 | 0.04 | 64 | 0.05 | 12 | <2 | 0.03 |
| 000004 | 0.03 | 31 | 0.13 | 6 | 3 | 0.02 |
| 000010 | 0.03 | 41 | 0.04 | 5 | <2 | 0.02 |
| 000013 | 0.02 | 87 | 0.04 | 10 | <2 | 0.02 |
| 000014 | 0.03 | 177 | 0.04 | 8 | 3 | 0.02 |
| 195819 | 0.08 | 86 | 0.03 | 6 | 5 | 0.05 |
| 195820 | 0.05 | 715 | 0.03 | <2 | <2 | 0.03 |
| 195821 | 0.06 | 178 | 0.04 | 5 | 4 | 0.07 |
| 195824 | 0.03 | 131 | 0.04 | 8 | 5 | 0.04 |
| 195825 | 0.17 | 56 | 0.04 | 7 | 10 | 0.04 |
| 195826 | 0.02 | 52 | 0.03 | <2 | <2 | 0.02 |
| 195827 | 0.05 | 188 | 0.04 | <2 | 12 | 0.08 |

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# 49862 Certificate of Analysis

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*POM 2E0*

*Page 1*
*January 28, 1994*

*Work Order #: 930091A*
*Date Received: January 5, 1994*

| ICAP | ppm Ag | % Al | ppm As | ppm Au | ppm Ba | ppm Be |
|---|---|---|---|---|---|---|
| 000011 | 1.1 | 0.80 | 15 | <3 | 20 | <1 |
| 000012 | 0.6 | 0.79 | 53 | <3 | 19 | <1 |
| 000018 | 1.8 | 0.96 | 56 | <3 | 21 | <1 |
| 000019 | 1.4 | 0.84 | 16 | <3 | 21 | <1 |
| 195815 | 0.1 | 0.19 | <2 | <3 | 108 | 2 |

| ICAP | ppm Bi | % Ca | ppm Cd | ppm Co | ppm Cr | ppm Cu |
|---|---|---|---|---|---|---|
| 000011 | <3 | 0.18 | <1 | 41 | 82 | 7864 |
| 000012 | <3 | 0.16 | <1 | 74 | 102 | 4268 |
| 000018 | <3 | 0.17 | <1 | 102 | 85 | 9599 |
| 000019 | <3 | 0.18 | <1 | 43 | 68 | 7606 |
| 195815 | <3 | 7.98 | <1 | 57 | 8 | 105 |

| ICAP | % Fe | ppm Hg | ppm La | % Mg | ppm Mn | ppm Mo |
|---|---|---|---|---|---|---|
| 000011 | 4.02 | <1 | <1 | 0.85 | 252 | 1 |
| 000012 | 3.54 | <1 | <1 | 0.84 | 209 | 1 |
| 000018 | 3.95 | <1 | <1 | 0.83 | 252 | 2 |
| 000019 | 4.22 | <1 | <1 | 0.73 | 209 | 1 |
| 195815 | 8.26 | <1 | 3 | 4.95 | 4934 | <1 |

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48997 **Certificate of Analysis**

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Page 1
January 28, 1994

Work Order #: 930056A
Date Received: January 5, 1994

| ICAP | ppm Ag | % Al | ppm As | ppm Au | ppm Ba | ppm Be |
|---|---|---|---|---|---|---|
| BALD 026 | 0.2 | 2.23 | 14 | <3 | 60 | <1 |
| BALD 033 | 0.1 | 0.28 | 29 | <3 | 62 | <1 |
| BALD 034 | 0.1 | 0.02 | 7 | <3 | 9 | <1 |
| BALD 035 | 0.2 | 0.42 | 31 | 5 | 22 | <1 |
| BALD 038 | 0.1 | 0.17 | 49 | <3 | 54 | <1 |
| RB - 6 - 93 | 0.4 | 1.93 | 19 | <3 | 29 | <1 |
| RB - 11 - 93 | 0.5 | 1.86 | 40 | <3 | 31 | <1 |
| RB - 19 - 93 | 0.2 | 1.02 | 19 | <3 | 22 | <1 |
| 195805 | 0.2 | 0.69 | 33 | <3 | 23 | <1 |
| 195806 | 1.4 | 1.35 | 62 | <3 | 45 | <1 |
| 195807 | 0.4 | 3.01 | 112 | <3 | 39 | <1 |
| 195810 | 0.2 | 1.83 | 39 | <3 | 45 | <1 |
| 195811 | 0.1 | 0.34 | 41 | <3 | 58 | <1 |

| ICAP | ppm Bi | % Ca | ppm Cd | ppm Co | ppm Cr | ppm Cu |
|---|---|---|---|---|---|---|
| BALD 026 | <3 | 0.24 | <1 | 42 | 394 | 30 |
| BALD 033 | <3 | 0.63 | <1 | 45 | 342 | 8 |
| BALD 034 | <3 | 0.48 | <1 | 1 | 16 | 10 |
| BALD 035 | <3 | 0.46 | <1 | 36 | 25 | 21 |
| BALD 038 | <3 | 7.13 | <1 | 83 | 43 | 18 |
| RB - 6 - 93 | <3 | 0.83 | <1 | 40 | 42 | 1056 |
| RB - 11 - 93 | <3 | 0.49 | <1 | 63 | 40 | 1302 |
| RB - 19 - 93 | <3 | 0.43 | <1 | 24 | 174 | 577 |
| 195805 | <3 | 0.87 | <1 | 41 | 52 | 235 |
| 195806 | <3 | 0.70 | <1 | 67 | 89 | 5290 |
| 195807 | <3 | 0.20 | <1 | 40 | 683 | 278 |
| 195810 | <3 | 0.32 | <1 | 38 | 162 | 261 |
| 195811 | <3 | 6.15 | <1 | 90 | 44 | 127 |

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January 28, 1994

Work Order #: 930056A
Date Received: January 5, 1994

| ICAP | % Fe | ppm Hg | ppm La | % Mg | ppm Mn | ppm Mo |
|---|---|---|---|---|---|---|
| BALD 026 | 5.84 | <1 | 7 | 2.51 | 282 | 3 |
| BALD 033 | 9.75 | <1 | 3 | 0.30 | 377 | 2 |
| BALD 034 | 1.88 | <1 | <1 | 0.21 | 178 | 2 |
| BALD 035 | 3.67 | <1 | 5 | 0.64 | 209 | 2 |
| BALD 038 | 6.94 | <1 | 3 | 3.32 | 2627 | 2 |
| RB - 6 - 93 | 2.78 | <1 | 2 | 1.39 | 367 | 3 |
| RB - 11 - 93 | 3.85 | <1 | 1 | 1.77 | 471 | 2 |
| RB - 19 - 93 | 1.80 | <1 | 1 | 0.98 | 251 | 2 |
| 195805 | 1.90 | <1 | 2 | 0.95 | 209 | 2 |
| 195806 | 4.02 | <1 | <1 | 1.11 | 335 | 2 |
| 195807 | 4.67 | <1 | 1 | 3.97 | 534 | 4 |
| 195810 | 3.37 | <1 | 5 | 1.81 | 419 | 2 |
| 195811 | 8.80 | <1 | 8 | 3.11 | 2397 | 3 |

| ICAP | % Na | ppm Ni | ppm P | ppm Pb | ppm Sb | % Si |
|---|---|---|---|---|---|---|
| BALD 026 | 0.08 | 100 | 495 | 21 | 5 | 0.27 |
| BALD 033 | 0.10 | 36 | 1382 | 24 | 5 | 0.22 |
| BALD 034 | 0.01 | 7 | 47 | 10 | <2 | 0.11 |
| BALD 035 | 0.02 | 34 | 235 | 12 | <2 | 0.34 |
| BALD 038 | 0.14 | 64 | 868 | 34 | 2 | 0.20 |
| RB - 6 - 93 | 0.13 | 329 | 212 | 14 | 3 | 0.31 |
| RB - 11 - 93 | 0.06 | 394 | 184 | 15 | <2 | 0.34 |
| RB - 19 - 93 | 0.04 | 230 | 211 | 15 | 3 | 0.19 |
| 195805 | 0.05 | 198 | 160 | 24 | <2 | 0.42 |
| 195806 | 0.09 | 2553 | 131 | 8 | <2 | 0.39 |
| 195807 | 0.03 | 482 | 130 | 23 | 12 | 0.50 |
| 195810 | 0.06 | 197 | 257 | 8 | 9 | 0.34 |
| 195811 | 0.07 | 137 | 153 | 33 | 10 | 0.17 |

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January 28, 1994

Work Order #: 930056A
Date Received: January 5, 1994

| ICAP | ppm Sr | % Ti | ppm V | ppm W | ppm Zn |
|---|---|---|---|---|---|
| BALD 026 | 3 | 0.06 | 217 | 7 | 22 |
| BALD 033 | 20 | 0.02 | 251 | 4 | 14 |
| BALD 034 | 7 | <0.01 | 7 | <1 | 5 |
| BALD 035 | 10 | 0.01 | 27 | 4 | 15 |
| BALD 038 | 180 | 0.02 | 166 | 8 | 14 |
| RB - 6 - 93 | 17 | 0.06 | 28 | 8 | 30 |
| RB - 11 - 93 | 7 | 0.05 | 28 | 7 | 39 |
| RB - 19 - 93 | 8 | 0.06 | 25 | 5 | 26 |
| 195805 | 6 | 0.08 | 40 | 5 | 13 |
| 195806 | 10 | 0.04 | 26 | 8 | 57 |
| 195807 | 2 | 0.08 | 80 | 11 | 41 |
| 195810 | 7 | 0.08 | 46 | 7 | 41 |
| 195811 | 103 | 0.01 | 49 | 14 | 8 |

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# 49813 Certificate of Analysis

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January 28, 1994

Work Order #: 930056B
Date Received: January 5, 1994

## Whole Rock Analysis

| ICAP | % SiO2 | % Al2O3 | % Fe2O3 | % MgO | % CaO | % Na2O |
|---|---|---|---|---|---|---|
| 195805 | 52.48 | 7.82 | 11.26 | 11.64 | 12.58 | 1.82 |
| 195806 | 49.36 | 12.51 | 12.01 | 8.64 | 10.99 | 1.47 |
| 195807 | 48.57 | 7.68 | 13.59 | 17.15 | 7.68 | 0.18 |
| 195810 | 55.48 | 12.97 | 9.36 | 8.67 | 6.97 | 2.39 |

| ICAP | % K2O | % P2O5 | % TiO2 | % MnO | % BaO | % Cr2O3 |
|---|---|---|---|---|---|---|
| 195805 | 0.38 | 0.069 | 0.498 | 0.100 | 0.013 | 0.085 |
| 195806 | 0.98 | 0.068 | 0.288 | 0.050 | 0.028 | 0.117 |
| 195807 | 0.08 | 0.083 | 0.378 | 0.108 | 0.008 | 0.278 |
| 195810 | 1.10 | 0.097 | 0.405 | 0.075 | 0.031 | 0.103 |

| ICAP | % SrO | % LOI | % Total |
|---|---|---|---|
| 195805 | 0.008 | 1.9 | 100.7 |
| 195806 | 0.012 | 3.4 | 100.0 |
| 195807 | 0.001 | 5.2 | 101.0 |
| 195810 | 0.011 | 2.7 | 100.4 |

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# Certificate of Analysis

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POM 2E0

Page 2
January 28, 1994

Work Order #: 930091A
Date Received: January 5, 1994

| ICAP | % Na | ppm Ni | % P | ppm Pb | ppm Sb | % Si |
|---|---|---|---|---|---|---|
| 000011 | 0.02 | 748 | 0.04 | <2 | <2 | 0.05 |
| 000012 | 0.02 | 1586 | 0.03 | <2 | <2 | 0.03 |
| 000018 | 0.03 | 1252 | 0.04 | <2 | <2 | 0.07 |
| 000019 | 0.02 | 785 | 0.04 | <2 | <2 | 0.04 |
| 195815 | 0.08 | 107 | 0.03 | <2 | <2 | 0.05 |

| ICAP | ppm Sr | % Ti | ppm V | ppm W | ppm Zn |
|---|---|---|---|---|---|
| 000011 | 4 | 0.06 | 25 | 3 | 53 |
| 000012 | 5 | 0.05 | 25 | 8 | 28 |
| 000018 | 4 | 0.05 | 27 | <2 | 37 |
| 000019 | 5 | 0.08 | 27 | <2 | 13 |
| 195815 | 210 | <0.01 | 40 | <2 | 17 |

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# 49866 Certificate of Analysis

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POM 2E0


January 28, 1994

Work Order #: 930091C
Date Received: January 5, 1994

| ICAP | ppm Sr | % Ti | ppm V | ppm W | ppm Zn |
|---|---|---|---|---|---|
| 000001 | 53 | 0.01 | 109 | <2 | 136 |
| 000004 | 41 | 0.02 | 52 | 3 | 85 |
| 000010 | 6 | 0.06 | 30 | 4 | 34 |
| 000013 | 5 | 0.05 | 23 | 2 | 20 |
| 000014 | 7 | 0.04 | 18 | 3 | 18 |
| 195819 | 11 | 0.06 | 29 | 7 | 19 |
| 195820 | 10 | 0.05 | 27 | 6 | 25 |
| 195821 | 9 | 0.05 | 18 | 5 | 14 |
| 195824 | 6 | 0.07 | 28 | 6 | 22 |
| 195825 | 20 | 0.05 | 30 | 10 | 16 |
| 195826 | 6 | 0.05 | 22 | 11 | 20 |
| 195827 | 8 | 0.04 | 106 | 13 | 53 |

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| sample # | Taken by | Location | Type | Rock type | Minerals |
|---|---|---|---|---|---|
| 001 | Stringer | L39E,075N | grab | gabbro | py, carb |
| 004 | Stringer | L37E,050N | grab | gabbro | py, cpy |
| 006 | Stringer | see Fig 3 | grab | sediment | qtz, ser |
| 010 | Stringer | L46E,250N | grab | gabbro | po, cpy |
| 011 | Stringer | L48E,425N | grab | gabbro | cpy, po |
| 012 | Stringer | L48E,425N | grab | gabbro | cpy, po |
| 013 | Stringer | L47E,275N | grab | gabbro | po, cpy |
| 014 | Stringer | L51E,400N | grab | gabbro | po |
| 018 | Stringer | L48E,400N | grab | gabbro | cpy, po |
| 019 | Stringer | L48E,400N | grab | gabbro | cpy, po |
| 021 | Stringer | Rainbow-1 | grab | sediment | py |
| 026 | Bald | Pink Bx | grab | mafic Bx | py |
| 027 | Bald | Pink Bx | grab | gabbro | po, cpy |
| 028 | Bald | Rainbow-1 | grab | maf. dike | py |
| 029 | Stringer | Rainbow-1 | grab | maf. dike | py |
| 030 | Stringer | Rainbow-1 | grab | maf. dike | py |
| 031 | Bald | Rainbow-1 | grab | maf. dike | carb,qtz |
| 032 | Bald | Rainbow-1 | grab | maf.dike | carb, py |

| | | | | | |
|---|---|---|---|---|---|
| 033 | Stringer | Rainbow-1 | grab | maf.dike | py |
| 034 | Bald | Rainbow-1 | grab | qtz vein | py, mt |
| 035 | Bald | Rainbow-1 | chip over 30 cm | qtz vein | py, mt |
| 036 | Bald | Rainbow-1 | grab | maf.dike | py |
| 037 | Bald | Hem. Pit | grab | alt. gab. | py, mt |
| 038 | Bald | Rainbow-1 | grab | maf. dike | py, mt |
| 039 | Bald | Rainbow-3 | grab | maf. dike | py, qtz |
| 040 | Bald | Rainbow-3 | chip over 30 cm | sil. sed. | py |
| 041 | Bald | Rainbow-3 | grab | carb zone | py, mt |
| 042 | Bald | Rainbow-3 | grab | carb zone | py, mt |
| 043 | Bald | Rainbow-3 | grab | sil. sed. | py, qtz |
| 051 | Stringer | AN-3 | float | gabbro | po, cpy |
| 126 | Bald | Rainbow-1 | grab | maf. dike | py, carb |
| 127 | Bald | Rainbow-1 | grab | maf. dike | sil. |
| 128 | Bald | Rainbow-1 | grab | maf. dike | mt, carb |
| 129 | Bald | Rainbow-1 | channel over 50cm | sil. maf. dike | py, mt, carb |
| 130 | Bald | Rainbow-1 | channel over 50cm | sil. maf. dike | py, mt, carb |

| | | | | | |
|---|---|---|---|---|---|
| 130 | Bald | Rainbow-1 | channel over 50cm | sil. maf. dike | py, mt, carb |
| 131 | Bald | Rainbow-1 | channel over 60cm | maf.dike, qtz pod | py, mt |
| 132 | Bald | Rainbow-1 | grab | sil. zone | mt, py |
| 133 | Bald | Rainbow-2 | grab | qtz vein | py, mt |
| 134 | Bald | Rainbow-2 | grab | qtz vein | py, mt |
| 135 | Bald | Rainbow-3 | grab | sediment | py, mt |
| 136 | Bald | Rainbow-3 | grab | alt. sed. | |
| 137 | Bald | L25E,075N | grab | gabbro | po, cpy |
| 138 | Bald | L25E,075N | grab | gabbro | po, cpy |
| 139 | Bald | L25E,075N | grab | gabbro | po, cpy |
| 140 | Bald | L25E,075N | grab | gabbro | po, cpy |
| 141 | Bald | L25E,125N | grab | gabbro | po, cpy |
| 142 | Bald | L25E,125N | grab | gabbro | po, cpy |
| 143 | Bald | L25E,125N | grab | gabbro | po, cpy |
| 150 | Stringer | AN-3 | grab | gabbro | po, cpy |
| RB-5-93 | Bald | L23E,025N | grab | gabbro | cpy, po |
| RB-6-93 | Bald | L23E,0+0 | grab | gabbro | cpy, po |

| | | | | | |
|---|---|---|---|---|---|
| RB-10-93 | Bald | L24E,050S | grab | gabbro | po, cpy |
| RB-11-93 | Bald | L24E,050S | grab | gabbro | |
| RB-16-93 | Bald | L26E,0+0 | grab | gabbro | po, cpy |
| RB-17-93 | Bald | L26E,050S | grab | gabbro | po |
| RB-18-93 | Bald | L26E,175N | grab | gabbro | py, cpy |
| RB-19-93 | Bald | L30E,200N | grab | gabbro | |
| 195805 | Stringer | L25E,050N | grab | gabbro | |
| 195806 | Stringer | L25E,0+0 | grab | gabbro | cpy, po |
| 195807 | Stringer | L25E,0+0 | grab | gabbro | cpy |
| 195810 | Stringer | L40E,175N | grab | gabbro | po, cpy |
| 195811 | Stringer | L45E,300N | grab | qtz vein | sp. hem. |
| 195815 | Stringer | L45E,300N | grab | qtz-carb | sp. hem. |
| 195819 | Stringer | L42E,250N | grab | gabbro | po |
| 195820 | Stringer | L40E,400N | grab | gabbro | cpy, po |
| 195821 | Stringer | L38E,250N | grab | gabbro | po |
| 195824 | Stringer | L40E,375N | grab | gabbro | cpy, po |
| 195825 | Stringer | L39E,300N | grab | gabbro | py |
| 195826 | Stringer | L40E,300N | grab | gabbro | py |
| 195827 | Stringer | L39E,225N | grab | gabbro | py, cpy |

**APPENDIX 2**

# EM16

## VLF Electromagnetic Unit

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Pioneered and patented exclusively by Geonics Limited, the VLF method of electromagnetic surveying has been proven to be a major advance in exploration geophysical instrumentation.

Since the beginning of 1965 a large number of mining companies have found the EM16 system to meet the need for a simple, light and effective exploration tool for mining geophysics.

The VLF method uses the military and time standard VLF transmissions as primary field. Only a receiver is then used to measure the secondary fields radiating from the local conductive targets. This allows a very light, one-man instrument to do the job. Because of the almost uniform primary field, good response from deeper targets is obtained.

The EM16 system provides the *in-phase* and *quadrature components of the secondary field with the polarities indicated.*

Interpretation technique has been highly developed particularly to differentiate deeper targets from the many surface indications.

**Principle of Operation**
The VLF transmitters have vertical antennas. The magnetic signal component is then horizontal and concentric around the transmitter location.

## Specifications

| | |
|---|---|
| **Source of primary field** | VLF transmitting stations. |
| **Transmitting stations used** | Any desired station frequency can be supplied with the instrument in the form of plug-in tuning units. Two tuning units can be plugged in at one time. A switch selects either station. |
| **Operating frequency range** | About 15-25 kHz. |
| **Parameters measured** | (1) The vertical in-phase component (tangent of the tilt angle of the polarization ellipsoid). (2) The vertical out-of-phase (quadrature) component (the short axis of the polarization ellipsoid compared to the long axis). |
| **Method of reading** | In-phase from a mechanical inclinometer and quadrature from a calibrated dial. Nulling by audio tone. |
| **Scale range** | In-phase ± 150% : quadrature ± 40%. |
| **Readability** | ± 1%. |
| **Reading time** | 10-40 seconds depending on signal strength. |
| **Operating temperature range** | —40 to 50° C. |
| **Operating controls** | ON-OFF switch, battery testing push button, station selector, switch, volume control, quadrature, dial ± 40%, inclinometer dial ± 150%. |
| **Power Supply** | 6 size AA (penlight) alkaline cells. Life about 200 hours. |
| **Dimensions** | 42 x 14 x 9 cm (16 x 5.5 x 3.5 in.) |
| **Weight** | 1.6 kg (3.5 lbs.) |
| **Instrument supplied with** | Monotonic speaker, carrying case, manual of operation, 3 station selector plug-in tuning units (additional frequencies are optional), set of batteries. |
| **Shipping weight** | 4.5 kg (10 lbs.) |

GEONICS LIMITED Designers & manufacturers of geophysical instruments

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Toronto/Ontario/Canada
M4H 1H2
Tel: (416) 425-1821
Cables: Geonic's

## MAP SYMBOLOGY

Aerial Cableway, Boundary, Bridge, Building, Chimney, Cliff, Pit, Pile, Contours, Control Points, Culvert, Falls, Fence, Hedge, Wall, Flooded Land, Lock, Marsh or Swamp, Moat, Mine Head Frame, Outcrop, Pipeline, Railroad, Road, Rapids, Reservoir, River, Stream, Canal, Rock, Shoal, Spot Elevation, Tower, Transmission Line, Tunnel, Utility Poles, Wharf, Dock, Pier, Wooded Area

FILED ONLY. F.O.

## AREAS WITHDRAWN FROM DISPOSITION

M.R.O. – MINING RIGHTS ONLY

S.R.O. – SURFACE RIGHTS ONLY

M.+ S. – MINING AND SURFACE RIGHTS

| Description | Order No. | Date | Disposition | File |
|---|---|---|---|---|

SEE LETTER DATED JANUARY [illegible] - LAND ROLE

SEE LETTER DATED JANUARY [illegible] - LAND ROLE

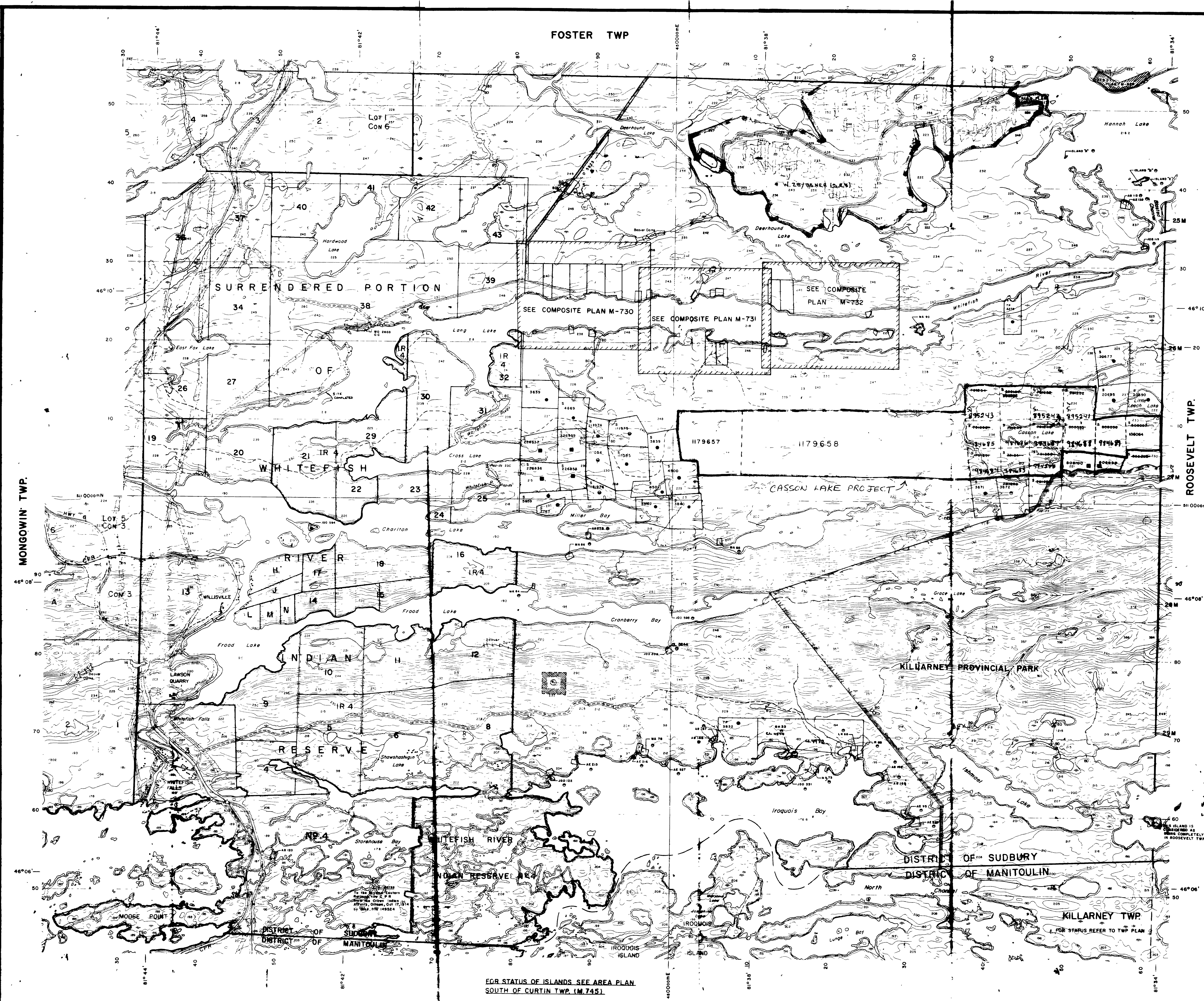
### SAND AND GRAVEL

GRAVEL FILE – 1[illegible]4

FLOODING ON FROOD AND CARLTON LAKES TO CONTOUR ELEVATION 9700 CONTROLLED BY A MINISTRY OF NATURAL RESOURCES DAM NORTH OF WHITEFISH FALLS FILE 45414 VOL 2

FLOODING ON LANG LAKE TO CONTOUR ELEVATION 99.65 CONTROLLED BY A MINISTRY OF NATURAL RESOURCES DAM BETWEEN CROSS AND LANG LAKES FILE 45414 VOL 3

SURRENDERED PORTION OF THE WHITEFISH RIVER INDIAN RESERVE IS ADMINISTERED BY THE INDIAN AFFAIRS BRANCH OF THE DEPARTMENT OF INDIAN AND NORTHERN AFFAIRS, OTTAWA.




FOR STATUS OF ISLANDS SEE AREA PLAN SOUTH OF CURTIN TWP. (M.745)

## LEGEND

HIGHWAY AND ROUTE No.
OTHER ROADS
TRAILS
SURVEYED LINES
TOWNSHIPS, BASE LINES, ETC
LOTS, MINING CLAIMS, PARCELS, ETC
UNSURVEYED LINES
LOT LINES
PARCEL BOUNDARY
MINING CLAIMS ETC
RAILWAY AND RIGHT OF WAY
UTILITY LINES
NON-PERENNIAL STREAM
FLOODING OR FLOODING RIGHTS
SUBDIVISION OR COMPOSITE PLAN
RESERVATIONS
ORIGINAL SHORELINE
MARSH OR MUSKEG
MINES
TRAVERSE MONUMENT

## DISPOSITION OF CROWN LANDS

| TYPE OF DOCUMENT | SYMBOL |
|---|---|
| PATENT, SURFACE & MINING RIGHTS | |
| " , SURFACE RIGHTS ONLY | |
| " , MINING RIGHTS ONLY | |
| LEASE, SURFACE & MINING RIGHTS | |
| " , SURFACE RIGHTS ONLY | |
| " , MINING RIGHTS ONLY | |
| LICENCE OF OCCUPATION | |
| ORDER-IN-COUNCIL | OC |
| RESERVATION | |
| CANCELLED | |
| SAND & GRAVEL | |

NOTE: MINING RIGHTS IN PARCELS PATENTED PRIOR TO MAY 6, 1913, VESTED IN ORIGINAL PATENTEE BY THE PUBLIC LANDS ACT, R.S.O. 1970, CHAP. 380, SEC. 63, SUBSEC. 1.

SCALE 1:20 000
GRID ZONE 17

Order No. W.28/95 NER (Surface Rights Only) 1995.12.12

DATE OF ISSUE
MAR 26 1993
SUDBURY MINING RECORDER'S OFFICE

TOWNSHIP SUBJECT FORESTRY OPERATIONS

THE INFORMATION THAT APPEARS ON THIS MAP HAS BEEN COMPILED FROM VARIOUS SOURCES, AND ACCURACY IS NOT GUARANTEED. THOSE WISHING TO STAKE MINING CLAIMS SHOULD CONSULT WITH THE MINING RECORDER, MINISTRY OF NORTHERN DEVELOPMENT AND MINES, FOR ADDITIONAL INFORMATION ON THE STATUS OF THE LANDS SHOWN HEREON.

TOWNSHIP
# CURTIN

M.N.R. ADMINISTRATIVE DISTRICT
ESPANOLA
MINING DIVISION
SUDBURY
LAND TITLES / REGISTRY DIVISION
SUDBURY

Ministry of Natural Resources Ontario — Land Management Branch

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CURTIN TOWNSHIP PROPERTY

**POWER-STRIPPED**

**AREAS**

Roberta Bald

FIGURE 6

| Drawn by: R. Bald | Date: December/93 |
|---|---|

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