BOG Mineral Claims
(Tenure Nos. 399952, 399953, 399954 \& 399955)
Upper Quinsam Lake Area
Nanaimo Mining Division
N.T.S. Map 092F13E

UTM Co-Ord. Zone 10; E.319957, N. 5527643
Latitude 49 deg. 52 min .27 sec .
Longitude 125 deg. 30 min .21 sec .

## By: Stephen L. Gardner, P. Geo.

Hillsborough Resources Ltd.
P. O. Box 5000

Campbell River, B. C.
V9W-5C5


## TABLE OF CONTENTS

## Page No.

1. Location and Access ..... 3
2. Regional Geology ..... 6
3. Previous Work ..... 6
4. Present Work ..... 6
5. Recommendations ..... 7
LIST OF FIGURES
Figure 1. Location of BOG Claims ..... 2
Figure 2. Airborne Magnetometer Values (1976 data) ..... 4
Figure 3. Regional Aeromagnetic Data ..... 5
Figure 4. Regional Geology ..... 5a
APPENDICES
Map 1. Ground Magnetometer Survey Work (Scale 1:2,000)
Appendix 1. - Ground Station Values (Gammas)
Appendix II. - Certificate of Analysis (Grab Sample)


FIGURE 1. Location of BOG Claims.

## Location and Access

The Bog claim group consists of 4 two post mineral claim units staked by Hillsborough Resources Ltd. in February, 2003. The claims are located approximately 500 metres south of Gentian Lake, a small lake located about 2 km due east of Upper Quinsam Lake, in the Comox Land District. The UTM co-ordinates of the center of the claim group is Zone 10, Easting 319957, Northing 5527643. The claim group covers a topographic high with a maximum elevation of approximately 560 metres A. S. L. and relief of about 120 metres. The BOG claims are approximately 3 kilometres north east of the Argonaut Mine, a magnetite iron ore deposit mined in the mid to late 1950's.

The claim group is accessed by driving 20 km west of Campbell River on Highway 28 (Gold River Highway), then turning south on the Argonaut Main Industrial Logging Road. This is also the tum-off to access the Quinsam Coal Mine (located approximately 8 km NNE of the claim group). On the Argonaut Main, proceed southwest for approximately 18 km to the ARG 2200 logging spur road. Turn left (south-east) on to ARG 2200 and proceed for 1.5 km . Take the first left spur road and drive north for approximately 600 metres. The BOG claims are approximately 200 metres east of this road. A grown-in logging road accesses the west boundary of the claims. The ARG 2200 spur also accesses the southem portion of the BOG 1 and BOG 4 claims.

Figure 1 illustrates the location of the BOG 1-4 claims.

## Mineral Titles Map

## Mineral Titles Layers <br> $\square$ <br> $\square$ <br> MINERAL titles outline (<1M) All Others <br> $\square \square$ <br> MINERAL titles outline labelled (<200K) All Others



SCALE 1 : 25,000


Airborne Magnetometer Values in Red (1976 Data)
Upper Quinsam Lake Area
FIGURE 2.

## BC Geology Map Index

Mineral Titles Layers
$\square \quad \square$ Mineral titles outline (<1M) All Others

Topographic Layers
Roads 1:250K (<2M)
$\square$ Lakes 1:50K (<300K)
Rivers 1:50K (<300K)
Grid Layers
Grid 1:250K maps - outline UTM Grid Lines (<1M)
Raster Layers

- Aeromag (<300K)

BC Border Layers
BC Border 1:50K (<200K)

figure 3. Regional Aeromagnetic Data

## BCGS Geology

## Mineral Titles Layers

$\square$ Mineral titles labelled (<200K) $\square$ All Others
Topographic Layers


Grid Layers

- Grid 1:250K maps - outline

UTM Grid Lines (<1M)
UTM Grid Labels (<100K)

## BCGS Geology Layers

Volcanic rocks by era (<4M)
Cenozoic volcanic rocks
Mesozoic volcanic rocks
Paleozoic volcanic rocks
Proterozoic volcanic rocks
Unknown
[.-. Intrusive rocks by era (<4M)
Cenozoic Intrusive
Mesozoic Intrusive
Paleozoic Intrusive
Proterozoic Intrusives
Age unknown
Layered rocks by era (<4M)
Cenozoic Rocks
-nannononin Danton


N
SCALE 1 : 50,000


FIGuRE 4. - Regional Geology, Gentian Lake Area
(Courtesy, B.C. Geological Survey)

## Regional Geology

The BOG claim group covers a topographic high of Lower Jurassic Bonanza Group calcalkaline volcanic rocks. The extreme southern part of the claims covers an area of Early to Middle Jurassic granodiorite rocks. The general strike trend of the rocks is west-southwest to east-north-east. Outliers of Quatsino Fm limestones are found to the south-west of the BOG claims in the vicinity of the Argonaut Mine, where skarn mineralization has emplaced magnetite ore bodies along the limestone contact.

## Previous Work

There has been no documented previous work on the claim group. The area was the subject of an aeromagnetic survey conducted by Luscar Ltd. in 1976. This survey was done by Aquaterra Consultants Ltd.

The results of the aeromag survey indicated that a magnetic anomaly exists over the area of the BOG claims which is similar in intensity to the old Argonaut Mine Area. This indicated the possibility of magnetite occurrences on the BOG claim group.

Figure 2 illustrates the magnetic contours in gammas for the BOG Claim Group and for the Argonaut Mine, 3 kilometres to the southwest.

Figure 3 illustrates the total magnetic intensity of regional aeromagnetic data available from the B. C. Government website (the Map Place).

Figure 4 illustrates the regional geology of the Gentian Lake area (courtesy, B. C. Geological Survey).

## Present Work

No mechanical work was done on the claim block during the 2003 year. No trees were cut or other disturbance was done, other than hand-slashing of the internal claim boundary lines.

The hand-slashed internal claim boundary lines for the BOG claims were used as reference lines for 2 km of ground magnetometer survey. A Scintrex OMNI IV backpack magnetometer and Scintrex OMNI Plus base station was rented from Tom Hasek and Associates of Burnaby, B. C. for the ground magnetometer survey.

Two straight magnetometer lines of 1 km each were run along the east-west internal claim line and the north-south internal claim line, which delineates the BOG 1,2,3 and BOG 4 claim units.

The magnetometer survey was run on June 14, 2003. The mag stations were controlled with the use of a hip chain and were spaced on 10 metre intervals. The base station was set up near the road to the southwest of the claims.

Map 1 (in pocket) illustrates the relative magnetic intensity (in gammas) for each station.

[^0]Appendix I contains the downloaded values for each station. The survey on the BOG claims was started at 10:12 A.M. (see Line 20, Position 20 in Appendix I). The corrected values (as per Base Station diurnal variation) are hand written on the right hand side of the page. The survey was completed at 13:09:15 on June 14.

The only significant base station corrections occurred at 11:19 A.M. when it must be assumed that a vehicle passed close to the base station, or a magnetic storm event occurred at that time. Base station corrections for the time period 11:19:04 through to 11:21:12 A.M. were not applied to the remote station values due to the base station anomaly.

An anomalous area of higher magnetic intensity was identified. This area is shown on Map 1.

One grab sample of rock from a rusty coloured outcrop approximately 200 metres SW of the I.P. for BOG $1-4$ was taken and subjected to I.C.P. analysis. The results are included in Appendix II.

## Recommendations

It is recommended that the area of the anomalous magnetic intensity be trenched and examined to determine the rock type and/or possible mineralization. Follow-up work could include additional mag survey lines spaced on 20 meter intervals across the strike to determine the continuity of the zone.

## Statement of Costs

The following costs were incurred during the 2003 year on the BOG 1, 2, 3 \& 4 claims:

Field labour $\qquad$

\$1,520.37

## Vehicle Rent and Fuel .....

 250.00Magnetometer Rent ....... 100.00

Miscellaneous
....... 50.00

Lab Assay Work .......
63.18

TOTAL: $\$ 1,983.55$

## STATEMENT OF QUALIFICATIONS

I, Stephen L. Gardner, of 208 Carnegie St., Campbell River, British Columbia, do hereby certify that:

1) I am a graduate of the University of Alberta (B. Sc., 1974).
2) I have +20 years of experience in exploration and development of industrial minerals and coal in Western Canada.
3) I am a member in good standing of the Association of Professional Engineers and Geoscientists of British Columbia.
4) I work for Hillsborough Resources Ltd.
5) I conducted the ground magnetometer survey on the BOG claims.




27,413


| Line | 5 D | e 14 | Jun |  | \#51 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| POSITION | FIELD | ERR | DRIFT | TIME | DS | CULT |  |
| 10 | 64477.2 | . 76 | 0.0 | 8:47:24 | 48 | 55 | $-1.9$ |
| 20 | 58527.3 | . 38 | 0.0 | 8:48:48 | 54 | 66 | $-1.7$ |
| 30 | 54780.1 | . 25 | 0.0 | 8:49:08 | 66 | 55 | $-1.7$ |
| 40 | 54215.1 | . 16 | 0.0 | 8:49:28 | 78 |  | -1.7 |
| 50 | 53815.3 | . 24 | 0.0 | 8:49:50 | 88 |  | $-1.1$ |
| 60 | 51561.3 | . 72 | 0.0 | 8:50:17 | 88 |  | $-1.1$ |
| 70 | 48781.0 | . 60 | 0.0 | 8:51:32 | 55 | 66 | -1.0 |
| 80 | 48948.1 | . 16 | 0.0 | 8:51:55 | 78 | 55 | -1.3 |
| 90 | 48925.2 | . 11 | 0.0 | 8:52:17 | 88 |  | $-1.3$ |


F.P. Boc pos

| 20 | 56354.0 | .03 |
| ---: | :--- | :--- | :--- |
| 30 | 55764.1 | .03 |
| 40 | 55451.2 | .05 |
| 50 | 55750.5 | .03 |
| 60 | 55989.6 | .03 |
| 70 | 56372.4 | .03 |
| 80 | 55999.5 | .03 |
| 90 | 56306.6 | .03 |
| 100 | 56443.7 | .04 |
| 110 | 56159.0 | .04 |
| 120 | 56129.7 | .03 |
| 130 | 56330.7 | .03 |
| 140 | 56615.3 | .04 |
| 150 | 56839.1 | .03 |
| 160 | 56500.3 | .03 |
| 170 | 56524.2 | .02 |
| 180 | 56310.1 | .03 |
| 190 | 56498.5 | .03 |
| 200 | 56226.6 | .04 |
| 210 | 56084.7 | .03 |
| 220 | 56234.3 | .03 |
| 230 | 56578.9 | .03 |
| 240 | 56626.6 | .03 |
| 250 | 56634.5 | .03 |
| 260 | 56559.2 | .03 |
| 270 | 57025.0 | .03 |
| 280 | 56553.1 | .04 |
| 290 | 56151.9 | .03 |
| 300 | 56884.4 | .03 |
| 310 | 56770.2 | .02 |
| 320 | 56350.5 | .03 |
| 330 | 56074.9 | .03 |
| 340 | 55998.3 | .03 |

$\left.\begin{array}{ccccccc} \\ & & & & & \text { BASE } & \text { CTATON }\end{array}\right]$ CORRECTED

|  |  |  |  |  |  |  | bASE station CORRETTON | $\begin{aligned} & \text { CDRRECTED } \\ & \text { VALUES } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | 14REM |  |  |
|  | 470 | 56620.5 | . 02 | 0.0 | 11:20:10 88 | 65 | + 2028 \% | 56621 |
|  | 480 | 56550.2 | . 03 | 0.0 | 11:20:39 88 |  | - 3500 ciscogar ${ }^{\text {a }}$ | 56550 |
| .P. 5009344 |  | 56566.9 | . 03 |  | 11:21:12 88 |  | - 7861.9 | 56567 |
| Lin |  | 40 Dat | e 14 | JUN 3 | \#158 |  |  |  |
| - BOG 3 POS | ITION | FIELD | ERR | DRIFT | TIME DS | CULT |  | 58171 |
| P. 80G344 | 10 | 58150.1 | . 03 | 0.0 | 11:51:17 88 |  | $+20.7$ | 58171 |
| HEADING | 20 | 57221.9 | . 04 | 0.0 | 11:52:1188 |  | $+0.7$ | $57222$ |
| NORTH | 30 | 55442.3 | . 34 | 0.0 | 11:52:5788 |  | -23.1 000 | $\begin{aligned} & 55419 \\ & 56406 \end{aligned}$ |
|  | 40 | 56406.2 | . 03 | 0.0 | 11:53:36 88 |  | 0.00 +23.6 | 56406 57180 |
|  | 50 | 57156.8 | . 03 | 0.0 | 11:54:0388 |  | 23.6 +17.00 | $\begin{aligned} & 57180 \\ & 56685 \end{aligned}$ |
|  | 60 | 56684.9 | . 03 | 0.0 | $11: 54: 2688$ |  | $-17.8$ |  |
|  | 70 80 | 56986.1 56546.5 | . 02 | 0.0 0.0 | $11: 54: 4688$ $11: 55: 0688$ |  | - 17.8 | 56968 56529 |
|  | 80 90 | 56546.5 57132.9 | . 03 | 0.0 0.0 | $11: 55: 0688$ $11: 55: 3788$ |  | -17.8 +4.8 | 56529 57138 |
|  | 100 | 56110.4 | . 04 | 0.0 | 11:56:06 88 |  | $+4.8$ | 56115 |
|  | 110 | 56457.9 | . 02 | 0.0 | 11:56:37 88 |  | -6.0 | 56452 |
|  | 120 | 56973.9 | . 03 | 0.0 | 11:57:12 88 |  | - 6.0 | 56968 |
|  | 130 | 57036.1 | . 02 | 0.0 | 11:57:40 88 |  | $+7.4$ | 57044 |
|  | 140 | 56327.2 | . 03 | 0.0 | 11:58:04 88 |  | $+7.4$ | 56335 |
|  | 150 | 56115.1 | . 03 | 0.0 | 11:58:25 88 |  | +7.4 | 56123 |
|  | 160 | 55941.9 | . 03 |  | 11:58:46 88 |  | $+4.4$ |  |
|  | 170 | 56362.0 | . 03 | 0.0 | 11:59:10 88 | 65 55 | 14.4 | $\begin{array}{lll} 5 & 746 \\ 56 & 366 \end{array}$ |
|  | 180 | 56693.0 | . 02 | 0.0 | 11:59:33 88 |  | +21.4 | 56697 |
|  | 190 | 56505.8 | . 03 | 0.0 | 12:00:04 88 |  | + 12.8 | 56519 |
|  | 200 | 56250.3 | . 04 | 0.0 | 12:00:30 88 | 65 | -12.8 | 56263 |
|  | 210 | 56986.8 | . 03 | 0.0 | 12:00:5188 | 55 | $+1.0$ | 56988 |
|  | 220 | 56814.6 | . 02 | 0.0 | 12:01:14 88 | 65 | $+1.0$ | 56816 |
|  | 230 | 56815.0 | . 02 | 0.0 | 12:01:38 88 | 55 | -1.0 |  |
|  | 240 | 56390.2 | . 02 | 0.0 | 12:02:07 88 |  | -17.1 | 56816 |
|  | 250 | 56383.0 | . 04 | 0.0 | 12:02:28 88 |  | -17.1 -17.1 | 566373 56636 |
|  | 260 | 56050.9 | . 03 | 0.0 | 12:02:52 88 |  | +17.4 | 56666 56068 |
|  | 270 | 56190.1 | . 03 | 0.0 | 12:03:20 88 |  | $\cdots 24.4$ | 56068 56174 |
|  | 280 | 56305.4 | . 04 | 0.0 | 12:03:4288 | 55 | $\sim 0.00$ | 56305 |
|  | 290 | 56162.7 | . 03 | 0.0 | 12:04:03 88 |  | $-19.5$ | 56143 |
|  | 300 | 55848.1 | . 03 | 0.0 | 12:04:33 88 | 65 | -19.5 | 55829 |
|  | 310 | 56302.6 | . 03 | 0.0 | 12:05:01 88 |  | 0.6 | 56304 |
|  | 320 | 56380.2 | . 03 | 0.0 | 12:05:27 88 | 55 | 0.6 | 563881 |
|  | 330 | 56405.2 | . 03 | 0.0 | 12:05:56 88 |  | $+15.7$ | 56421 |
|  | 340 | 56424.7 | . 03 | 0.0 | 12:06:1788 |  | 0.0 | 56425 |
|  | 350 | 55688.0 | . 04 | 0.0 | 12:06:5388 |  | -20.2 | 55666 |
|  | 360 | 55950.4 | . 03 | 0.0 | 12:07:20 88 |  | - 20.2 | 55930 |
|  | 370 | 55713.6 | . 03 | 0.0 | 12:07:47 88 |  | $+0.6$ | 55714 |
|  | 380 | 55863.6 | . 03 | 0.0 | 12:08:16 88 |  | $+0.6$ | 55864 |
|  | 390 | 55937.7 | . 03 | 0.0 | 12:08:42 88 |  | -0.6 | 55937 |
|  | 400 | 56201.8 | . 03 | 0.0 | 12:09:07 88 |  | -0.6 | 56201 |
|  | 410 | 56523.1 | . 03 | 0.0 | 12:09:32 88 |  |  | 56522 |
|  | 420 | 56327.6 | . 02 | 0.0 | 12:10:0188 |  | $+5 \cdot 2$ | 56338 |
|  | 430 | 56557.2 | . 03 | 0.0 | 12:10:26 88 |  | $+5.2$ | 56562 |
|  | 440 | 55765.0 | . 03 | 0.0 | 12:10:5188 | 65 | $+0.2$ | 565 |
|  | 450 | 55674.0 | . 03 | 0.0 | 12:11:2188 | 55 | 10.2 +0.2 | 55765 55674 |
|  | 460 | 55799.8 | . 03 | 0.0 | 12:11:44 88 |  | 10.2 +0.2 | $\begin{aligned} & 55674 \\ & 55800 \end{aligned}$ |
|  | 470 | 55769.1 | . 03 | 0.0 | 12:12:15 88 | 65 | $\cdots \cdot 2$ | 55769 |
|  | 480 | 56088.0 | . 03 | 0.0 | 12:12:39 88 |  | - 3.5 | 56085 |
| - DGE OF | 490 | 56115.2 | . 03 | 0.0 | 12:13:00 88 | 55 | $-3.5$ | 56112 |
| : LAIM BLOCK | 500 | 56263.6 | . 03 | 0.0 | 12:13:22 88 |  | -3.5 | 56260 |
| Lin |  | 50 Da | te 14 | JUN 3 | \#208 |  |  |  |
|  | SITION | FIELD | ERR | DRIFT | TIME DS | CULT |  |  |
| :P. Bog 3 ¢ 4 | 10 | 58144.7 | . 03 | 0.0 | 12:39:4788 |  | $+22.1$ | 58167 |
| HEADING | 20 | 56810.3 | . 04 | 0.0 | 12:42:03 88 |  | $-51$ | 56805 |
| SOUTH | 30 | 57169.8 | . 03 | 0.0 | 12:42:42 88 |  | $\pm 950$ | 57195 |
| SouTh | 40 | 57153.9 | . 03 | 0.0 | 12:43:10 88 |  | 4.5,0 | $\leq 7174$ |
|  | 50 | 57600.0 | . 03 | 0.0 | 12:43:51 88 | 4 | $\cdots 19$ | 57594 |



EOF

प

ALS Chemex
O:HLLSBOROUGH RESOURCES LTD

212 Brooksbark Avenue
North Vancouver BC V7J 2C1 Canada
Phone: 6049840221 Fax: 6049840218

## CERTIFICATE VA03010866

## Project :

P.O. No:

This report is for 1 ROCK sample submitted to our lab in North Vancouver, BC, Canada on
11-Apr-2003
The following have access to data associated with this certificate:
STEPHEN GARDNER

## BOG CLAIMS

|  | SAMPLE PREPARATION |
| :--- | :--- |
| ALS CODE | DESCRIPTION |
| WEI-21 | Received Sample Weight |
| LOG-22 | Sample login - Rcd w/o BarCode |
| CRU-31 | Fine crushing $-70 \%<2 \mathrm{~mm}$ |
| SPL-21 | Split sample - riffle splitter |
| PUL-31 | Pulverize split to $85 \%<75$ um |


| ANALYTICAL PROCEDURES |  |  |
| :--- | :--- | :--- |
| ALS CODE | DESCRIPTION | INSTRUMENT |
| ME-GRA21 | Au Ag 30g FA-GRAV finish | WST-SIM |
| ME-ICP41 | 34 Element Aqua Regia ICP-AES | ICP-AES |

To: HILLSBOROUGH RESOURCES LTD.
ATTN: STEPHEN GARDNER
P.O. BOX 5000

CAMPBELL RIVER BC V9W 5C5

ALS Chemex
EXCELLENCE IN ANALYTICAL CHEMISTRY
ALS Canada Lid.
12 Brooksbank Avenue
North Vancouver BC V7J 2C1 Canada
Phone: $6049840221 \quad$ Fax: 6049840218

O: HILLSBOROUGH RESOURCES LTD.

## CERTIFICATE OF ANALYSIS VA03010866



ALS Chemex
io: HILLSBOROUGH RESOURCES LTD.
Page\#: 2-B

## excellence in analytical chemistry

ALS Canada Lid.
212 Brooksbank Avenue
Phone: $6049840221 \quad$ Fax 6049840218
Phone: 6049840221 Fax: 6049840218
Fone: 6049840221 Fax 6884
CERTIFICATE OF ANALYSIS VA03010866


ALS Chemex EXCELLENCE IN ANALYTICAL CHEMISTRY
ALS Canada Ltd.
12 Brooksbank Avenue
North Vancouver BC V7J 2C1 Canada
Phone: 6049840221 Fax: 6049840218
io: HILLSBOROUGH RESOURCES LTD.

## CERTIFICATE OF ANALYSIS

VA03010866



[^0]:    

