JUN 0 3 <b>1997</b>		
Gold Commissioner's Office VANCOUVER, B.C.	ESSMENT DED	מר

### **ON THE**

# **BT 12 - 21 CLAIMS**

# **CARIBOO MINING DIVISION, BRITISH COLUMBIA**

### LAT 54° 05' N LONG 121° 40' W

# N.T.S. 93 I 4

# FOR

# 26BT RESOURCE DEVELOPMENT CO. LTD.

BY

S. JAIN, P. GEO. (B.C.), P. GEOPH. (ALBERTA)

&

W. L. KELSCH, P. GEOPH. (ALBERTA)

1 OF 2  $() 5_{2}$ June 05, 1997 Calgary, Alberta

SUDHIR JAIN received M.Tech. in Exploration Geophysics from Indian Institute of Technology and PH.D. in Geophysics from University of Liverpool. After working for twelve years for Mobil and sundry service companies in U.K., Libya, U.S.A., and Canada, Dr. Jain set up Commonwealth Geophysical, a service company for oil and mineral exploration in 1976. He developed innovative interpretation techniques for geophysical data which quickly became industry standards. He published over 40 papers and was honoured by European and Canadian professional societies.

During the last 22 years, Dr. Jain has explored for numerous companies in Canada and overseas as well as in Madagascar and Southeastern Alberta on his own account. He is also associated with ore exploration in British Columbia and diamond exploration in Saskatchewan. He is a registered Geoscientist in British Columbia and a member of Association of Professional Engineers, Geologists and Geophysicists of Alberta, Society of Exploration Geophysicists (USA), Canadian Society of Exploration Geophysicists, Canadian Society of Petroleum Geologists and European Association of Geoscientists and Engineers.

LORNE KELSCH graduated with B.Sc. from University of Manitoba in 1952. After working on seismic data acquisitions, processing and interpretation for 22 years with Petty Ray Geophysical. Mr. Kelsch moved to PanCanadian where he worked in various capacities including Chief Geophysicist till 1995.

Mr. Kelsch is a professional member of Association of Professional Engineers, Geologists and Geophysicists of Alberta, Canadian Society of Exploration Geophysicists.

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### INTRODUCTION

#### <u>Claim Data</u>

The properties were staked by Brendan A. Gordon on behalf of 26BT Resource Development Co. Ltd. in June 1996. The details are as follows:

<u>Claim Name</u>	<u>Tenure Number</u>	Anniversary Date
BT 12-17	346620-346625	June 09, 1996
BT 18	346941	June 10, 1996
BT 19	346626	June 10, 1996
BT 20-21	347097-347098	June 16, 1996

The total area of these claims is approximately 32 sq km. Total area claimed by 26 BT including claims BT 1 - BT 21 and Stone 1 and 2 is approximately 75 sq km.

#### Location & Access

The property lies north of the Fraser River, south of MacGregor River and west of Bearpaw Ridge. The centre of these claims is about 5 km N E of the town of MacGregor (Figure 1). Access to the claims is by a forestry road. The claim lies in a generally marshy area in the elevation range of 650 m and 750 m. Numerous ponds, lakes and streams are present in the area.

#### **History**

26BT staked claims BT 1 to BT 11 in 1993 and 1994. These claims are located to the east of claims BT 12 to BT 21. Geophysical work and drilling in those claims suggested the possibility of sulfide-rich intrusives being present to the northeast of claim 10. Claims 12 - 21 were staked to explore this possibility.

#### **Geology**

There is no detailed geological study of this particular area known to the authors. The formations under the alluvial cover are believed to be lower palaeozoic and proterozoic sediments truncated by major faults trending in a NW - SE direction. This major fault is probably the south end of the Tintina fault with the Nova (Slave?) terrain to the east and the Cassier terrain to the west. This major fault then offsets to the east to the rocky mountain

trench. There may be smaller offshoots of these faults. It is hoped that sulfide rich magma residue after separation of magnetite-rich intrusion in Bearpaw Ridge has intruded along some of these faults.

#### **GEOPHYSICAL SURVEY OF 1997**

#### **Data Acquisition:**

26BT engaged Dighem, A Division of CGG Canada Ltd. to conduct an aeromagnetic and multi-coil, multi-frequency electromagnetic survey over an approximately 62 sq km area. Total coverage amounted to 361 km including tie-lines. The survey was flown on February 8 and February 9, 1997. Dighem processed the data in their Mississauga, Ontario facility and final maps and their report was received by 26BT on April 8, 1997. A copy of this report is included with this submission.

The survey overlapped claims BT 6, BT 8, BT 9, and BT 10. 22.5% of the survey covered these claims and 77.5% is assigned to claims covered by this report. Overall costs of the survey were distributed accordingly.

Sixteen traverse lines were flown with the spacing of 200 m in a NE - SW direction. The length of lines was variable. Two tie lines were flown six kilometers apart. The survey employed the DIGHEMS electromagnetic system installed in an Aerospatiale AS350BA turbine helicopter. Ancillary equipment consisted of an optically pumped Cesium vapour (model Picodas 3340) magnetometer, radar altimeter, video camera, analog and digital recorders and GPS navigational system (model Sercel NR106, Real-time differential positioning). In addition, a field workstation was employed to verify data quality and completeness. Magnetic base station used a digital recording cesium vapour magnetometer. The helicopter flew at an average speed of 107 km/h, with average terrain clearance of 60 m. Clearance was 40 m for magnetic and 30 m for EM bird. Technical details are supplied in the enclosed Dighem report.

#### **Preliminary Interpretation:**

Dighem supplied the maps at a scale of 1:20,000. To meet the report requirements, maps were photographically reduced to the scale of 1:50,000. Following are the maps supplied by Dighem:

- 1. Total magnetic field corrected for diurnal variations but without IGRF correction (Figure 2).
- 2. Vertical gradient of the magnetic field computed from total magnetic field (Figure 3).
- 3. Resistivity map from 7200 Hz coplanar data (Figure 4).
- 4. Resistivity map from 56,000 Hz coplanar data (Figure 5).

Magnetic field map shows the presence of a shallow mafic intrusive along a known regional fault that traverses the area in a N - S direction. The strong magnetic anomaly in the south was observed in the previous survey and combination of two data sets will define the anomaly unambiguously and probably outline prospective areas for commercial magnetite concentration. Magnetic maps show fault patterns oriented mostly in ENE - WSW direction and some orthogonal faults. These faults are of great interest when conductive EM anomalies are associated with them.

Resistivity maps show numerous conductive anomalies. Most of these anomalies are associated with marsh, lakes and streams. However, a few anomalies are related to faults apparent on the magnetic maps. The interpretation of this data is at a very preliminary stage. Therefore, further comments on interpretation are premature at this stage.

#### **FUTURE WORK**

The data are being examined in detail by Commonwealth Geophysical. At the end of this interpretation, fault pattern and source depth maps will be prepared from magnetic data. Conductive anomalies in resistivity data sets will be related to the fault locations and near surface features. The conductive anomalies of commercial interest on the claims will be selected for surface work in the summer of 1998.

Magnetic data will be combined with previous data sets to define the extent of magnetite concentration causing a very high magnetic anomaly. However, it appears likely that the magnetite concentration is limited to claims BT 8, BT 9 and BT 10.

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# STATEMENT OF COSTS

(June 7, 1996 to June 5, 1997)

### BT 12-21

### A. EXPLORATION COSTS

- Dighem, A Division of CGG Canada Ltd. \$33,286.24

### TOTAL EXPENSES

\$<u>33,286.24</u>

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FIGURE 1 AREA OF AEROMAG AND EM SURVEY 1997

CALGARY ALBERTA









#### RESISTIVITY CONTOURS

	1000
	800
	- 600
	- 500
	400
	- 300
	- 250
	200
	- 150
	- 125
	- 100
Contours in ohm-m	at 10 intervals per decode

### FIGURE 4 RESISTIVITY, COAXIAL INPHASE 7200 HZ



26BT RESOURCE DEVELOPMENT CO. LTD. SINCLAIR MILLS, B.C.

#### APPARENT RESISTIVITY 7200 Hz COPLANAR

DICHEM \* SURVEY NTS: 93/4 GEOPHYSICIST: 20 DATE: FEBRUARY, 1997 JOB: 1274 SHEET: 1 Geoterrex-Dighem, A division of CGG Canada Ltd.

Scale 1:50 000







#### RESISTIVITY CONTOURS

	- 1000
	800
	- 600
	500
_	- 400
	- 300
	- 250
	- 200
	- 150
	125
	100
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### FIGURE 5 RESISTIVITY, COAXIAL INPHASE 56000 HZ



26BT RESOURCE DEVELOPMENT CO. LTD. SINCLAIR MILLS, B.C.

#### APPARENT RESISTIVITY 56,000 Hz COPLANAR

DICHEM - SURVEY NTS: 93/4 GEOPHYRSIGST. CC DATE: FEBRUARY, 1997 408: 1274 SHEET: 1 Geoterrex-Dighem, A division of CGG Canada Ltd.

Scale 1:50 000

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