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**ASSESSMENT REPORT**  
**ON THE**  
**BT 1-7 & 11 CLAIMS**  
**CARIBOO MINING DIVISION BRITISH COLUMBIA**  
**LAT 54° 03' N LONG 121° 36' W**  
**N.T.S. 93 I 4**

**FOR**  
**26BT RESOURCE DEVELOPMENT CO. LTD.**  
**BY**  
**S. JAIN, P. GEOPH (ALBERTA), P. GEO. (B.C.)**  
**&**  
**W. L. KELSCH, P. GEOPH (ALBERTA)**

**GEOLOGICAL SURVEY BRANCH**  
**ASSESSMENT REPORT**

**26,044**

**September 28, 1999**

**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.

Since 1974, 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, a member of Association of Professional Engineers, Geologists and Geophysicists of Alberta, and honorary member of Canadian Society of Exploration Geophysicists.

**LORNE KELSCH** graduated with B.Sc. from University of Manitoba in 1952. After working on seismic data acquisition, 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 his retirement in 1995.

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

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## INTRODUCTION

### Claim Data

The B.T. Properties are presently held in the name of 26BT Resource Development Co. Ltd. They were originally staked by Brendan A. Gordon on behalf of Malcolm T. MacDonald, one of the principals of the Company.

<u>Claim Name</u>	<u>Tenure Number</u>	<u>Anniversary Date</u>
BT 1-4	313837-313840	October 8, 1993
BT 5,6	313845-313846	October 8, 1993

These were then sold to the company.

BT 7, 8, 9, 10 and 11 were acquired on behalf of the company in 1993. Details are as follows:

BT 8-10	323096-323098	December 21, 1994
BT 7,11	323202-323203	December 29, 1994

BT 12, 13, 14, 15, 16, 17, 18, 19 and 20 were acquired on behalf of the company by Brendan A. Gordon in June 1996. The details are as follows:

BT 12-17	346620-346625	June 09, 1996
BT 18	346941	June 10, 1996
BT 19	346626	June 10, 1996

Stone 1 and Stone 2 were acquired on behalf of the company by Malcolm McDonald in 1996. The details are as follows:

Stone 1 and 2	349810-349811	August 04, 1996
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The total area of claim is approximately 75 sq. km.

This report covers claims 1-11 only. Claims 12-19 were relinquished this year and Stone 1 and 2 are reported separately.

## **Location & Access**

The property lies north of the Fraser River and south of the West Torphy River. The centre of the claims is about 6 kilometres N.N.E. of Sinclair Mills (Figure 1). Access to the claims is by old logging roads. The claims lie between the elevation of 700 meters and 1690 meters in generally rugged terrain. Devil's club and windfall trees make the claims difficult to traverse.

## **History**

Two of the principals of the company entered the area north and east of MacGregor in 1989. This was based on projections of the trends seen in the configuration of the North American Continental mass as demonstrated by Government gravity and magnetic maps. Later, while studying reports and maps in the Provincial offices in Prince George, the magnetic feature shown on Aeromagnetic Map 1536 G of the Geophysics Division of Mines and Technical Surveys (Figure 2) was noted. Subsequent sampling along Creeks Crossing the old logging road north of Sinclair Mills yielded unusually high amounts of magnetite. The decision to stake the area at the north west end of Bearpaw Ridge was then made and carried out in 1992. An aeromagnetic survey was flown, processed and interpreted in 1993. As a result of this survey, additional areas surrounding the claims were staked. 9 holes were drilled to the depth of 100' on the claims in October 1994. The chemical analysis from the cores showed that Fe<sub>2</sub>O<sub>3</sub> content averaged between 10 - 20% in the holes and reached up to 35% in some zones. The magnetic separation in 20 samples from two of the holes showed that in samples with high Fe<sub>2</sub>O<sub>3</sub> content (greater than 10%), magnetite is more than 75% of total Fe<sub>2</sub>O<sub>3</sub> percentage.

Three holes were drilled to the depths of 300' in June 1995. Two of the holes confirmed the presence of magnetite in a variable amount to at least 300'. The third hole was mislocated and missed the anomaly. This hole does not appear to have any commercial significance.

Three holes were drilled in July 1996, two to the depth of 300' and one to 500'. One hole confirmed magnetic concentration while the other two were discouraging. Detailed surface geology was undertaken in 1997 together with mineral and chemical analysis of 60 stream samples and 109 chip samples. The report of professional geologist is included as Appendix 7 in Assessment Report Number 25280.

In summer of 1998, ground magnetic and VLF-EM data was collected along eleven cut lines and four roads. 25 silt samples and 81 rock samples were also collected by E. R. Kruchkowski, P. Geol. and his crew. His report is included as Appendix 2 in Assessment Report Number 25664. Ground geophysical data results are discussed in a later section (Integration of Geology and Geophysics).

In summer of 1999, ground magnetic data was collected along three extended and two new lines. 63 rock samples and magnetic data at 25' intervals were collected by E.R. Kruchkowski, P. Geol. and his crew. Two gravel samples were also collected for detailed analysis. Five cores

from previous holes (94-4, 94-6, 95-2, 96-1, and 96-3) were analysed in detail in 3.3 m (10') sections by Overburden Drilling Management for mineralogical content. Core for 94-4 was shipped to MD Technologies of Perth, Australia for metallurgical analysis.

## **Geology**

Following summary of known geology of Bearpaw ridge closely follows the report by Pell (1994). The area is mapped as Silurian volcanoclastics, felsic and intermediate tuffs, agglomerates of Nonda formation over the ridge, foliated hornblende gneiss on the western slope and coarse grained massive pink syenites in the southwest (Figure 3). Pell notes sodalite syenite outcrop and two flanking syenite sills in southeast portion of the claim area which intrude the volcanoclastics whose southeastern extent is not defined. These volcanoclastics "largely comprise clinopyroxene crystal tuffs, calcareous tuffs and minor basaltic flows. Flow rocks contain clinopyroxene phenocrysts and altered phenocrysts (now chlorite) in a ground mass of opaque oxides, plagioclase and clinopyroxene microphenocrysts and chlorite". These may be classified as alkali basalts. Folded and foliated dioritic orthogneiss vary from a banded gneiss containing 5 - 10% magnetite-ilmenite to a mafic gneiss with 15 - 20% magnetite-ilmenite. Chemical analyses indicates  $Fe_2O_3$  content of 6.9 and 14.5% in two volcanic samples and 1.5, 7 and 11.2% in three samples from mafic gneiss. Corresponding  $TiO_2$  content is .59 and 2.06% in volcanics and .27, .80 and 2.01% in mafic gneisses.

Kelsch in an appendix to Kelsch and Jain (1994) reported that the accessible part of the terrain is generally covered by a thin layer of soil. The vegetation is thick. Devil's club and mosquitoes are plentiful and they make the work quite difficult. In spite of these problems, he obtained several surface samples. The majority of these samples were from glacial erratics which had not moved very far from their original location. The magnetic susceptibility of these samples ranged from .001 to .250 emu. Two of the samples were analyzed chemically by Terramin Research Labs Ltd (Table 1). The analysis showed 22 and 25% Iron Oxide and 4.34 and 5% Titanium Oxide in these samples. These figures support more work on the prospect to define concentrations of magnetite and ilmenite which may have economic interest.

The magnetic data acquired by 26BT strongly suggest a magnetite rich intrusive of elliptical shape on the ridge. This is confirmed by the mineralogical analysis of samples from fifteen holes drilled so far which contain crystalline gabbro with high mafic content. The gabbro is quite heterogeneous laterally as well as vertically. Pell (1994) does not mention this intrusive. Incidentally, the sodalite body mapped by Pell was not encountered in hole 95-3.

## **Geophysics**

### **Data Acquisition in 1993**

26BT engaged Geonex Aerodat to conduct an aeromagnetic and electromagnetic survey over a 12 km X 13 km area including the company's claims. The data were acquired in February,

1993 by a helicopter with mean terrain clearance of 100 m for helicopter and 70 m for sensing equipment. The survey comprises 321 line kilometres, with east-west traverse lines spaced 500 m apart and two north-south tie lines. In addition to the total field map with variable contour interval, Geonex also supplied maps for vertical gradient of the magnetic field and VLF-EM total field. The VLF-EM map is relatively quiet and indicates general absence of sulphide ores in the area. The vertical gradient measurements did not provide meaningful data probably because magnetic anomalies were very strong and very sharp. The details of acquisition and preliminary processing are contained in the report submitted by Geonex and included in Kelsch, and Jain (1993). Final processing and interpretation are described by Jain and Kelsch (1997) in Assessment Report Number 25280.

### **Data Acquisition in 1997**

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.

The survey was conducted to evaluate claims 12 - 21 which have now been relinquished. However, the survey area overlapped claims BT 6, BT 8, BT 9, and BT 10. 22.5% of the survey covered these claims and 22.5% 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 DIGHEM5 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 work station 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. For technical details of the Dighem report see Assessment Report Number 25034.

### **Interpretation of E-M Data**

This is included in Assessment Report Number 25543 (D.R. Stevenson, P.Geo. electromagnetic data), Assessment Report Number 25664 (Appendix 2) and Assessment Report Number 25034 (Dighem maps).

## DRILLING AND CORE ANALYSIS

9 holes were drilled to a depth of 30.46 m (100 ft) in October 1994, 3 holes to the depth of 91.38 m (300 ft) in June 1995 and three holes, two to the depth of 91.38 m (300 ft) and one to 152.29 m (500 ft) in July 1996. All holes were cored in hard rock. Location of the holes is shown in Figure 4. Core diameter was 43 mm (1 3/4"). Hole 7 did not hit the hard rock till it reached the bottom. Susceptibility was measured at 1 ft intervals on the cores as an indicator of the magnetite content. Two boulder specimens collected in 1994 were analyzed. The holes were drilled to determine the source of magnetic anomaly and not for details of local geology. No obvious metals have been noted in the cores. Appendix 1 gives details of the drilling logistics. Core logs are given in Assessment Report Number 25034.

140 samples were selected from fourteen cores to include a wide variety of susceptibility and core type (grain-size, colour, rock type) and two from boulders picked up on the site. Magnetic susceptibility of the samples was measured several times at different locations on the sample and the average recorded.

The samples were chemically analyzed by Terramin Research Labs of Calgary in December, 1994, August, 1995 and October, 1996. The results of their analyses, measured susceptibility and rock type are given in Assessment Report Number 25664.

Cores from five holes, 94-4, 94-6, 95-2, 96-1 and 96-3 were cut in two halves along the diameter. One part was sent to Stu Averill, Overburden Drilling Management Limited, Napean, Ontario. His reports and analyses conducted by them are included in Appendix 3. Overall results of this study are generally negative. The summary of Stu Averill's work is as follows:

1. The magnetite in the gabbro contains approximately 10% of its weight in  $TiO_2$  in intercrystalline form. The titaniferous magnetite is of little commercial value.
2. There is no rutile contained in these cores.
3. Ilmenite content ranges from 2.5% to 5% in all holes except 96-4 where it is 10%. 94-4 also contained 2.5%  $P_2O_5$ . However, apatite contained in the core is very fine-grained and may be deleterious to Ilmenite instead of being a by-product. As a result of this analysis, core from 94-4 was sent to MD Technologies in Perth, Australia for metallurgical analysis and review of commerciality of the core. Preliminary results from their analysis show that recoverable ilmenite is only 3.2% because substantial proportion of  $TiO_2$  is contained in Pyroxenes as well as in magnetite and that calcium and phosphorus content makes it unsuitable for chloride feed stock but acceptable as sulphate feed stock.

## **INTEGRATION OF GEOLOGY AND GEOPHYSICS**

The geological study conducted in the summer of 1997, 1998 and 1999 by Ed Kruchkowski (see Assessment Report Numbers 25280, 25664 and Appendix 2) provided encouraging results from silt and rock samples. Analyses of these samples generally supported the magnetic data interpretation and drill hole results of previous years. General conclusions from magnetic separation and petrographic studies are:

1. Recoverable magnetite is expected to be 60 - 75% of  $\text{Fe}_2\text{O}_3$  content of the rock. However, this magnetite is of little commercial interest due to its  $\text{TiO}_2$  content.
2. Recoverable ilmenite is expected to be about the same percentage as  $\text{TiO}_2$  since pyroxenes and magnetite also contain  $\text{TiO}_2$ .
3. Rutile is absent in all five holes analysed in detail.
4. Apatite is present along the rims of zones with concentrated ilmenite. This apatite is very fine-grained, widely dispersed and probably not commercial.

### **Silt Samples**

86 silt samples were collected in 1997 and 1998 from the stream beds. The chemical analyses showed  $\text{Fe}_2\text{O}_3$  and  $\text{TiO}_2$  content ranges of 5 - 36% and 0.5 - 14% respectively. Iron and titanium contents increased in tandem,  $\text{TiO}_2$  being 20 - 40% of  $\text{Fe}_2\text{O}_3$ . Generally the percentage was at the higher end of the spectrum when the  $\text{Fe}_2\text{O}_3$  content was higher.

Higher concentrations were noted in streams which flowed through highly magnetic areas than in streams which bypassed such areas. The ground magnetic survey shows that many streams have moved since concentrating magnetite along several kilometers of their lengths. The data indicates the width of concentrated zones ranges from 100 - 200 m. It should be noted that string anomalies are also caused by sources other than streams.

If the surface samples are representative of the overburden, approximately 2.4 sq km of overburden could be ore grade. This overburden is estimated to contain 0.3 m tons (worth \$15 m) of ilmenite for one sq km area each metre of thickness. Unless a thick zone can be isolated, environmental approval may be a problem for a project stripping off all top soil for a large area.

Two bulk samples collected last summer are being analysed for their chemical content.

## **Rock Samples**

Rock samples were collected from accessible outcrops in 1997, 1998 and 1999. Chemical analyses of these samples showed that generally  $\text{TiO}_2$  is 15 - 35% of  $\text{Fe}_2\text{O}_3$ , its proportion increases when  $\text{Fe}_2\text{O}_3$  concentration is high.

The chemical analysis done in 1997 did not include  $\text{P}_2\text{O}_5$  and  $\text{V}_2\text{O}_5$ . The analysis for these samples was repeated by Loring Lab in 1999 (Table 2). This analysis indicates that ilmenite enrichment noted in 94-4 probably extends eastwards and may be better than in 94-4.  $\text{P}_2\text{O}_5$  content seems to be higher along the rims of high ilmenite zones. There is indication of local concentration of  $\text{V}_2\text{O}_5$  but not to economic levels.

## **Ground Geophysical Survey**

In June 1998 and 1999, total magnetic field data were collected along slashed lines and four roads. Station spacing was 25 m and line spacing averaged 1 km. The meter, ENVI MAG/VLF, S/N 9602230, was manufactured by and rented from Scintrex.

Manually contoured map of magnetic field (Figure 4, contour interval 1000 nT) shows very strong (2000 -6000 nT) string like anomalies. When these strings follow the dips on topographic map, they indicate magnetite concentration in existing or old streams. When string like anomalies follow the trend of the topographic strikes, they may be due to the outcropping gabbro. Thickness and magnetite and ilmenite content of enriched stream beds is of vital importance in estimating reserves. Rectangular rims of high anomalies indicate edges of magnetite concentrations, one such concentration is noted west of the top of the ridge.

Modelling with 10 m thick, 100 m wide and 4 km long horizontal plate placed 1 m and 70 m below observation plane shows that narrow anomalies are ten times as strong and half as wide on ground data than on aeromagnetic data. The magnitude of the anomalies with the susceptibility of 0.01 cgs units was 1600 nT on the surface and 125 nT at flight level. Therefore, the overburden anomalies are expected to be subdued by deeper-source anomalies on aeromagnetic data. Following parameters are estimated for magnetic overburden from ground magnetic data:

Width 100 - 200 m  
Thickness 5 - 20 m  
Susceptibility .01 - .03 cgs  
Magnetite content 5 - 10%  
Ilmenite content 2-5%

These estimates do not apply to magnetite rich gabbros which are the probable source of anomalies on aeromagnetic map.

In shallow models a very strong negative field is observed at the northern edge of the source. Some very strong negative anomalies were observed in the field. These could be the northern edges of streams located south of the stations.

Continuation of ground magnetic data to the flight height for aeromagnetic data resembles the aeromagnetic map within the limits set by field parameters of the data sets. This supports the validity of both data sets.

## **CONCLUSIONS AND FUTURE WORK**

The surface geology, ground magnetic survey and integration of all data with 15 holes drilled in 1995 and 1996 and aeromagnetic surveys in 1993 and 1997 lead to following conclusions:

1. The best prospect so far drilled is in the vicinity of hole 94-4 in west slope of the ridge. The metallurgical analysis shows that recoverable percentage of ilmenite is only about  $\frac{1}{3}$  of ore grade and impurities make it unsuitable as chlorite feed stock.
2.  $P_2O_5$  is contained as fine particles in other minerals and is not separable.
3. Magnetite contains 8-15%  $TiO_2$  which is inseparable. Therefore, magnetite is unsuitable as iron ore and almost worthless.
4. From surface geology and magnetic data, there is a possibility of different phase of gabbro intrusion on top of the ridge which may have higher magnetite and ilmenite concentration. Surface rock samples have significantly higher  $TiO_2$ .

Based on these conclusions, we plan to do metallurgical analysis on surface samples to determine if there is sufficient concentration of  $TiO_2$  in ilmenite and to analyze impurities in ilmenite and magnetite. If this analysis is encouraging additional surface geology will be done and at least two holes will be drilled next summer.

## **References**

Kelsch, W.L., Jain, S., 1993, Assessment report on the BT 1-6 claims: Prince George Mining Division, British Columbia

Kelsch, W.L., Jain, S., 1994, Assessment Report on the BT 1-11 claims: Prince George Mining Division, British Columbia

Pell, J., 1994, Carbonatites, Nepheline Syenites, Rimberlites and Related rocks in British Columbia: Province of British Columbia, Mineral Resources Division, Bulletin 88, p 14-18

Jain, S., Kelsch, W.L., 1996, Assessment report number 25034, BT claims 12-19

Jain, S., Kelsch, W.L., 1997, Assessment report number 25164 & 25280, BT claims 1-11

Jain, S., Kelsch, W.L., 1997, Assessment report number 25543, BT claims 12-19

Jain, S., Kelsch, W.L., 1998, Assessment report number 25664, BT claims 1-11

**Table 1:**

**Chemical analysis of two boulder samples collected in May, 1994.**

Sample Number	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	CaO %	MgO %	Na <sub>2</sub> O %	K <sub>2</sub> O %	Fe <sub>2</sub> O <sub>3</sub> %	MnO %	TiO <sub>2</sub> %	LOI %	Total %
93-2	37.9	10.0	13.850	9.882	0.949	0.151	22.45	0.182	4.34		99.67
93-3	34.7	8.7	8.982	13.513	0.325	0.245	27.60	0.219	5.00		99.23

## APPENDIX 1

### Drill hole and core information

Hole diameter	1 ¾" 43 mm
Inclination	90°
Azimuth	n.a.
Minerals noted	no obvious metals noted, detailed analysis planned.
Number of holes	15
Total hole depth	2900' 883.2 m
Total length of core	2611' 795.2 m
Location of cores	7203 Keewatin Street S.W., Calgary, AB, T2V 2M6
Collar elevation of holes (estimated from topo map)	94-1 3620' 94-2 3700' 94-3 4080' 94-4 3990' 94-5 3630' 94-6 3880' 94-7 2810' 94-8 2695' 94-9 2490' 95-1 2400' 95-2 4575' 95-3 5320' 96-1 2470' 96-2 5250' 96-3 5200'

## STATEMENT OF COSTS

(October 3, 1998 to September 28, 1999)

BT 2, 3, 7 and 11

### A. EXPLORATION COSTS

- Geological Field Trips (June 9-26, 1999) 2 men X 16.0 days 1 man X 14.0 days	\$8,920.89
- Rental of magnetometer	437.21
- Cutting of Core	550.90
- Clearing of Roads	1,178.20
- Maps	4,693.25
- 20% of \$331.44 Transportation Expense	<u>62.29</u>
<b>TOTAL EXPLORATION EXPENSES</b>	<b><u>\$15,842.74</u></b>

### B. SAMPLE ANALYSIS

- Edward Kruchkowski	\$ 400.00
- Loring Laboratories Ltd.	2,835.84
- Overburden Drilling Management Limited	4,868.11
- Intertek Testing Services	<u>805.47</u>
<b>TOTAL SAMPLE ANALYSIS EXPENSES</b>	<b><u>\$ 8,909.42</u></b>
<b>TOTAL EXPENSES</b>	<b><u>\$24,752.16</u></b>

## STATEMENT OF COSTS

(October 3, 1998 to September 28, 1999)

BT 1, 4, 5 and 6

### A. EXPLORATION COSTS

- Geological Field Trips (June 9-26, 1999) 2 men X 16.0 days 1 man X 14.0 days	\$8,920.89
- Rental of magnetometer	437.20
- Cutting of Core	550.90
- Clearing of Roads	1,178.20
- Maps	4,693.25
- 20% of \$331.44 Transportation Expense	<u>62.29</u>

### TOTAL EXPLORATION EXPENSES

\$15,842.73

### B. SAMPLE ANALYSIS

- Edward Kruchkowski	\$ 400.00
- Loring Laboratories Ltd.	2,835.84
- Overburden Drilling Management Limited	4,868.11
- Intertek Testing Services	<u>805.47</u>

### TOTAL SAMPLE ANALYSIS EXPENSES

\$ 8,909.42

### TOTAL EXPENSES

\$24,752.15

# TABLE 2

## Loring Laboratories Ltd.

629 Beaverdam Road N.E.,  
 Calgary Alberta T2K 4W7  
 Tel: 274-2777 Fax: 275-0541



TO: 26 BT RESOURCE CO., LTD  
 Suite 200, 5920 McLeod Trail S.W.,  
 Calgary, Alberta  
 T2H 0K2

FILE: 41275

DATE: July 22, 1999

Attn: Sudhir Jain

### WHOLE ROCK ANALYSIS BY ICP

Sample No.	Al <sub>2</sub> O <sub>3</sub> %	Ba ppm	CaO %	Cr ppm	Fe <sub>2</sub> O <sub>3</sub> %	K <sub>2</sub> O %	MgO %	MnO %	Na <sub>2</sub> O %	Ni ppm	P <sub>2</sub> O <sub>5</sub> %	SO <sub>3</sub> %	SiO <sub>2</sub> %	Sr ppm	TiO <sub>2</sub> %	V <sub>2</sub> O <sub>5</sub> %	LOI %	SUM %
R-1	12.61	605	11.04	33	20.13	1.02	5.71	0.18	1.90	42	0.443	0.10	38.56	664	4.36	0.09	1.31	97.45
R-2	15.14	616	10.71	143	16.41	1.58	5.89	0.17	2.63	87	0.492	0.10	41.11	651	2.89	0.04	1.59	98.75
R-3	12.32	189	11.52	59	17.10	0.68	5.76	0.14	2.36	189	1.655	0.15	38.98	408	4.76	0.08	1.99	97.50
R-4	10.74	189	10.64	17	22.55	0.44	5.53	0.23	1.75	42	1.972	0.09	36.80	469	4.71	0.07	3.22	98.74
R-5	14.32	680	11.98	47	16.34	0.99	5.25	0.18	2.41	49	0.679	0.11	40.42	942	2.95	0.06	1.69	97.37
R-6	10.27	152	12.03	45	21.19	0.37	6.99	0.17	0.68	237	0.046	0.10	38.44	365	3.46	0.26	3.05	97.04
R-7	9.65	61	13.80	344	19.77	0.12	9.74	0.14	0.78	226	0.045	0.11	37.81	369	2.41	0.10	2.11	96.58
R-8	8.66	63	14.04	222	23.01	0.11	8.65	0.17	0.85	437	1.058	0.13	36.39	291	3.76	0.19	0.90	97.92
R-9	8.54	69	14.02	169	22.72	0.13	8.10	0.18	0.89	154	0.026	0.17	36.77	313	3.70	0.17	0.84	96.25
R-10	11.07	134	12.27	5	21.14	0.28	6.35	0.18	1.33	85	0.174	0.12	38.15	486	3.82	0.18	2.20	97.26
R-11	10.47	167	12.17	31	21.82	0.23	6.27	0.19	1.21	184	0.354	0.12	38.75	512	3.62	0.17	3.00	98.37
R-12	16.15	167	14.95	129	16.01	0.14	5.54	0.11	1.25	199	0.107	0.13	39.51	642	2.41	0.14	1.51	97.95
R-13	17.79	230	9.82	30	12.88	0.49	4.45	0.15	2.25	51	0.038	0.10	41.92	1189	3.43	0.06	3.92	97.30
R-14	18.74	143	11.02	44	14.35	0.24	4.03	0.12	1.96	99	0.209	0.15	41.82	953	2.51	0.09	3.12	98.35
R-15	13.40	621	5.12	9	16.06	3.22	2.83	0.19	4.53	40	0.734	0.18	46.77	402	2.03	0.01	2.98	98.05
R-16	12.57	597	9.87	17	19.89	1.08	5.35	0.24	3.02	47	2.306	0.13	37.91	553	4.32	0.06	3.05	99.79
R-17	12.00	168	10.90	42	17.95	0.85	3.94	0.28	3.27	56	1.708	0.16	41.99	621	3.79	0.02	1.61	98.46
R-18	16.46	770	1.86	12	6.59	4.48	0.47	0.17	5.87	27	0.136	0.36	59.58	161	0.59	<0.01	1.51	98.08
R-19	16.10	400	2.25	23	7.50	4.40	0.37	0.13	5.24	41	0.091	0.06	59.76	64	0.42	<0.01	2.13	98.46
R-20	19.41	591	7.10	47	4.77	3.93	0.28	0.15	4.45	146	0.047	0.10	56.87	1836	0.12	<0.01	1.76	98.99
R-21	23.30	526	4.60	24	2.44	5.83	0.27	0.08	4.18	234	0.814	0.10	53.93	391	0.11	<0.01	2.31	97.96
R-22	12.17	43	20.30	89	10.53	0.88	5.23	0.06	0.94	130	0.979	0.43	39.01	104	4.16	0.11	4.95	99.74
R-23	11.88	25	22.64	136	12.85	0.15	4.50	0.14	0.80	40	0.172	0.30	44.12	499	0.54	<0.01	0.84	98.93
R-24	9.72	336	14.21	770	15.40	2.11	9.54	0.22	1.37	348	0.485	0.19	41.37	469	2.47	<0.01	2.17	99.26
R-25	9.13	181	11.65	45	22.87	0.21	7.22	0.15	0.94	28	0.091	0.20	39.63	282	4.59	0.31	1.11	98.09
R-26	9.85	188	11.87	49	28.17	0.16	7.32	0.19	1.16	54	0.231	0.14	33.01	369	6.49	0.26	0.64	99.48
R-27	9.83	250	11.93	36	25.89	0.36	7.23	0.22	1.71	38	0.414	0.13	33.27	517	8.87	0.15	0.40	98.41
R-28	18.05	243	0.37	47	4.77	4.45	0.29	0.08	5.48	86	0.526	0.06	60.54	25	0.77	<0.01	1.15	96.51
R-29	19.55	238	0.35	70	4.95	4.94	0.51	0.11	5.35	266	1.218	0.05	61.18	30	0.74	<0.01	0.79	99.74
R-30	15.60	78	0.25	51	3.48	4.81	0.44	0.12	5.68	8	0.094	0.04	65.88	27	0.70	<0.01	0.58	97.67
R-31	16.65	211	0.37	55	4.06	4.51	0.58	0.16	6.66	16	0.145	0.06	61.72	25	0.78	<0.01	0.44	96.13
R-32	16.54	731	1.45	62	6.29	4.55	0.36	0.12	5.22	17	0.170	0.05	61.09	116	0.44	<0.01	0.59	96.87
R-33	18.05	548	0.37	53	4.13	5.48	0.23	0.09	6.13	24	0.142	0.06	61.36	53	0.47	<0.01	0.74	97.25
R-34	15.26	654	10.03	74	15.12	1.76	4.90	0.17	3.29	47	0.673	0.18	43.32	873	3.09	0.09	1.24	99.12
R-35	15.55	1350	8.76	28	13.66	6.38	3.29	0.08	1.13	138	0.670	0.11	45.52	574	2.33	0.04	1.05	98.57
R-36	13.97	166	13.50	36	15.30	1.11	4.67	0.09	2.16	103	0.830	0.18	42.50	513	3.30	0.12	1.01	98.73



# Loring Laboratories Ltd.

629 Beaverdam Road N.E.,  
Calgary Alberta T2K 4W7  
Tel: 274-2777 Fax: 275-0541



TO: 26 BT RESOURCE CO., LTD  
Suite 200, 5920 McLeod Trail S.W.,  
Calgary, Alberta  
T2H 0K2

FILE: 41275

DATE: July 22, 1999

Attn: Sudhir Jain

## WHOLE ROCK ANALYSIS BY ICP

Sample No.	Al <sub>2</sub> O <sub>3</sub> %	Ba ppm	CaO %	Cr ppm	Fe <sub>2</sub> O <sub>3</sub> %	K <sub>2</sub> O %	MgO %	MnO %	Na <sub>2</sub> O %	Ni ppm	P <sub>2</sub> O <sub>5</sub> %	SO <sub>3</sub> %	SiO <sub>2</sub> %	Sr ppm	TiO <sub>2</sub> %	V <sub>2</sub> O <sub>5</sub> %	LOI %	SUM %
R-37	12.34	46	17.98	74	8.19	0.84	4.90	0.07	1.44	105	0.881	0.48	43.61	172	3.80	0.13	4.62	99.28
R-38	15.10	514	9.83	21	13.93	1.93	3.89	0.14	3.13	164	0.640	0.13	44.65	699	3.06	0.08	1.71	98.22
R-39	15.13	274	9.71	32	14.39	1.36	4.00	0.17	3.15	28	0.676	0.14	43.75	530	3.14	0.09	2.69	98.40
R-40	11.43	587	18.67	125	9.03	2.19	5.25	0.13	1.01	71	0.354	0.22	44.96	338	1.47	0.04	2.13	96.89
R-41	11.67	729	18.76	127	6.80	4.23	4.95	0.25	0.64	86	0.238	0.21	49.44	248	0.45	<0.01	1.00	98.63
R-42	6.83	75	16.72	454	11.86	0.28	15.32	0.15	0.85	256	0.109	0.25	43.43	187	1.28	<0.01	1.43	98.51
R-43	17.37	186	3.05	53	8.56	4.03	0.49	0.15	6.66	35	0.104	0.07	56.18	74	0.38	<0.01	0.47	97.52
R-44	18.48	204	3.48	55	6.43	4.21	0.19	0.11	6.54	22	0.075	0.10	57.92	559	0.10	<0.01	1.22	98.84
R-45	10.37	285	21.06	91	9.82	0.80	7.98	0.16	1.08	46	0.554	0.30	40.11	341	2.09	0.07	2.17	96.56
R-46	14.62	1013	9.44	59	14.35	1.80	4.54	0.18	3.03	53	0.605	0.27	43.64	610	2.81	0.08	1.47	96.84
R-47	17.81	779	9.80	38	11.38	2.02	4.18	0.20	3.50	22	1.206	0.13	42.96	1404	2.43	0.04	1.83	97.49
R-48	20.77	299	3.96	21	4.99	3.54	0.13	0.16	6.11	305	0.041	0.07	55.82	635	0.05	<0.01	1.45	97.08
R-49	15.77	250	15.81	148	5.94	2.33	2.97	0.08	2.59	42	0.117	0.17	49.15	318	0.51	<0.01	2.30	97.74
R-50	20.78	951	6.65	45	7.80	2.73	1.35	0.16	5.80	28	0.264	0.10	49.76	1396	1.14	<0.01	1.49	98.01
R-51	14.49	1008	11.98	55	15.72	1.37	5.04	0.18	2.85	33	1.254	0.20	37.82	1106	3.63	0.09	0.87	95.49
R-52	11.29	590	13.31	8	18.76	0.97	5.09	0.24	2.39	24	3.122	0.20	37.46	1080	4.89	0.10	1.81	99.63
R-53	14.25	466	9.74	53	17.14	0.77	4.23	0.24	4.35	41	0.641	0.19	43.95	641	3.07	0.08	0.34	98.99
R-54	13.53	500	13.48	47	12.78	1.25	6.03	0.15	2.23	50	0.420	0.24	42.99	816	3.79	0.06	1.63	98.58
R-55	12.06	523	12.11	20	17.51	0.84	5.62	0.20	2.10	32	0.495	0.15	39.47	822	5.74	0.10	0.73	97.12
R-56	13.19	607	12.08	32	17.33	0.80	5.31	0.21	2.57	46	2.584	0.16	38.89	1313	4.66	0.06	0.53	98.37
R-57	12.99	420	13.99	75	18.09	0.45	5.53	0.20	2.39	46	2.371	0.24	37.11	1410	4.90	0.06	0.57	98.88
R-58	9.23	153	12.32	77	26.27	0.16	7.30	0.24	1.31	90	0.568	0.21	33.14	430	4.83	0.24	1.48	97.28
R-59	9.80	114	13.42	59	26.28	0.12	7.39	0.22	1.35	51	0.134	0.18	34.74	431	5.13	0.27	0.19	99.22
R-60	6.94	147	12.60	26	28.30	0.15	9.84	0.26	0.85	61	0.156	0.20	32.15	310	6.15	0.30	1.64	99.55
R-61	7.70	103	12.48	51	27.71	0.13	9.86	0.25	1.12	91	0.163	0.16	32.30	333	7.45	0.25	0.23	99.80
R-62	6.15	141	12.34	63	31.01	0.20	10.92	0.25	0.86	72	0.097	0.16	30.73	184	6.13	0.34	0.33	99.51
R-63	7.53	95	13.00	77	28.19	0.11	9.56	0.24	1.07	51	0.114	0.20	32.46	293	7.05	0.28	<0.01	99.82
R-64	7.97	88	13.31	67	29.05	0.11	8.08	0.24	1.05	39	0.080	0.20	32.92	295	5.98	0.33	0.52	99.83
R-65	6.33	76	12.41	61	30.11	0.11	10.19	0.26	0.88	73	0.099	0.17	30.42	209	8.51	0.31	<0.01	99.81
R-66	17.73	220	13.13	51	13.65	0.27	4.77	0.12	2.67	42	2.187	0.22	38.35	1057	3.88	0.09	1.01	98.07
R-67	18.33	300	14.12	65	14.55	0.22	4.17	0.11	2.47	80	0.126	0.24	40.60	830	2.65	0.17	0.64	98.39
R-68	14.49	166	13.05	47	17.94	0.21	5.17	0.17	2.23	38	0.109	0.21	38.23	805	5.06	0.11	1.41	98.39
R-69	11.25	107	12.59	45	22.92	0.14	5.71	0.17	1.59	73	0.158	0.28	38.77	544	3.80	0.24	0.54	98.16
R-70	11.85	116	14.35	63	23.52	0.17	6.50	0.16	1.22	167	0.146	0.94	35.62	387	3.77	0.29	0.33	98.86
R-71	12.27	107	14.88	39	20.49	0.15	6.79	0.15	1.37	114	0.084	0.23	38.31	508	3.82	0.26	0.47	99.26
R-72	13.28	676	14.27	57	19.87	0.22	5.79	0.20	2.33	37	0.693	0.17	37.35	827	5.08	0.12	<0.01	99.36



# Loring Laboratories Ltd.

629 Beaverdam Road N.E.,  
Calgary Alberta T2K 4W7  
Tel: 274-2777 Fax: 275-0541



TO: **26 BT RESOURCE CO., LTD**  
Suite 200, 5920 McLeod Trail S.W.,  
Calgary, Alberta  
T2H 0K2

FILE: 41275

DATE: July 22, 1999

Attn: Sudhir Jain

## WHOLE ROCK ANALYSIS BY ICP

Sample No.	Al <sub>2</sub> O <sub>3</sub> %	Ba ppm	CaO %	Cr ppm	Fe <sub>2</sub> O <sub>3</sub> %	K <sub>2</sub> O %	MgO %	MnO %	Na <sub>2</sub> O %	Ni ppm	P <sub>2</sub> O <sub>5</sub> %	SO <sub>3</sub> %	SiO <sub>2</sub> %	Sr ppm	TiO <sub>2</sub> %	V <sub>2</sub> O <sub>5</sub> %	LOI %	SUM %
R-73	9.00	2	11.96	29	24.28	0.22	5.81	0.31	2.17	41	2.086	0.18	36.13	564	5.89	0.07	<0.01	98.10
R-74	11.07	210	11.89	49	24.87	0.16	6.54	0.19	1.45	37	0.179	0.17	35.20	459	5.14	0.22	0.53	97.61
R-74A	10.72	544	11.81	33	24.62	0.14	6.41	0.20	1.93	40	2.442	0.16	33.51	642	6.34	0.15	<0.01	98.43
R-75	3.34	74	11.45	23	35.93	0.04	9.95	0.40	0.41	36	0.367	0.21	26.47	61	10.09	0.30	<0.01	98.97
R-76	13.24	155	12.71	58	21.96	0.13	5.65	0.15	1.62	48	0.076	1.00	36.77	591	4.31	0.20	0.63	98.45
R-77	13.64	169	13.72	90	22.96	0.12	5.84	0.15	2.02	124	0.069	1.12	35.11	427	3.38	0.21	0.97	99.31
R-78	12.89	187	11.91	43	18.24	0.15	5.16	0.16	1.94	51	0.103	1.21	39.87	598	5.47	0.12	0.65	97.87
R-79	11.03	400	13.99	12	18.86	1.24	5.46	0.21	2.20	41	2.052	0.42	37.33	757	4.06	0.08	2.13	99.06
R-80	8.83	159	13.08	49	18.60	0.33	5.10	0.16	0.94	103	0.709	1.19	31.09	460	4.19	0.11	14.80	99.12
R-81	11.72	188	13.02	47	21.00	0.62	5.75	0.20	1.52	98	0.102	0.66	39.76	1018	3.52	0.14	1.76	99.77
R-82	18.53	273	14.14	2	13.72	1.13	4.36	0.25	2.50	51	0.414	0.58	38.16	725	2.52	0.06	2.81	99.17
R-83	12.21	130	16.89	12	12.80	0.66	6.73	0.20	1.25	68	0.245	0.21	42.16	508	1.91	0.07	2.09	97.42
R-84	27.72	636	12.77	20	6.64	2.48	1.95	0.06	2.56	20	0.231	0.15	38.20	1040	1.22	0.04	4.57	98.60
R-85	20.17	228	14.48	4	13.18	1.34	3.47	0.11	2.51	26	0.193	0.23	38.38	775	2.16	0.08	3.43	99.73
R-85A	17.21	643	1.79	27	11.22	5.15	0.42	0.25	5.27	9	0.139	0.05	55.65	62	0.64	<0.01	0.78	98.56
R-86	18.92	1046	0.81	41	9.11	5.35	0.82	0.10	6.19	13	0.088	0.06	55.45	58	0.45	<0.01	1.31	98.46
R-87	14.71	472	13.25	6	19.38	0.96	5.31	0.32	2.74	29	0.358	0.24	36.56	1001	5.37	0.12	0.50	99.83
R-88	14.82	643	13.62	8	17.65	0.78	6.08	0.18	2.43	13	0.344	0.28	37.16	1164	5.72	0.11	0.33	99.51
R-89	9.60	308	12.89	632	24.84	0.44	11.23	0.26	1.03	310	1.821	0.41	32.65	634	2.87	<0.01	1.77	99.80
R-90	13.97	676	15.64	16	19.56	1.57	4.32	0.19	1.70	31	2.890	0.20	33.69	1225	4.68	0.14	1.30	99.86
R-91	17.83	394	0.70	37	11.05	5.53	0.42	0.25	6.52	25	0.195	0.05	54.60	40	0.89	<0.01	1.43	99.47
R-92	17.51	351	0.60	43	10.56	5.63	0.31	0.25	6.35	46	0.232	0.04	55.32	49	0.78	<0.01	1.58	99.15
R-93	20.22	637	0.28	22	4.94	4.47	0.15	0.15	7.79	6	0.075	0.04	59.70	155	0.32	<0.01	1.38	99.51
R-94	19.54	25	0.68	53	3.17	5.58	0.39	0.17	6.96	18	0.127	0.06	60.96	41	0.50	<0.01	0.52	98.63
R-95	18.81	154	0.74	39	5.04	5.76	0.39	0.17	6.61	12	0.074	0.03	59.62	43	0.46	<0.01	0.56	98.26
R-96	19.63	220	1.25	65	5.75	5.48	0.55	0.14	6.55	57	0.539	0.05	56.41	97	1.09	<0.01	0.85	98.28
R-97	19.22	266	0.58	39	4.95	5.45	0.49	0.16	6.96	15	0.039	0.05	60.58	91	0.77	<0.01	0.50	99.75
R-98	11.66	140	15.96	463	18.62	0.41	9.80	0.29	1.46	251	0.421	0.19	36.91	509	2.03	<0.01	2.24	99.99
R-99	23.30	200	16.60	57	6.81	0.58	1.83	0.09	2.44	72	0.319	0.57	43.88	2094	1.40	0.03	1.15	98.98
R-100	8.53	122	15.51	35	27.92	0.15	7.45	0.28	1.17	47	3.370	0.18	28.15	787	6.93	0.19	<0.01	99.83
R-101	12.98	201	16.19	53	22.22	0.22	6.72	0.22	1.88	48	3.100	0.22	30.52	1043	5.48	0.12	<0.01	99.87
R-102	16.16	765	10.77	2	17.42	2.43	3.70	0.25	3.16	33	1.020	0.15	38.87	904	3.32	0.05	2.39	99.69
R-103	13.16	475	12.52	16	19.28	1.31	3.49	0.21	2.55	37	0.740	0.17	41.33	620	3.54	0.10	1.51	99.91
R-104	20.14	155	4.94	16	6.54	5.18	0.38	0.15	4.42	13	0.118	0.09	53.48	925	0.46	<0.01	2.20	98.10
R-105	19.65	728	5.70	18	6.81	4.36	0.93	0.16	4.83	12	0.213	0.10	53.35	524	0.48	<0.01	1.83	98.41
R-106	14.33	105	13.77	22	19.53	1.85	4.50	0.25	1.77	216	0.630	0.69	35.62	707	3.66	0.15	3.18	99.92



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T2H 0K2

FILE: 41275

DATE: July 22, 1999

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## WHOLE ROCK ANALYSIS BY ICP

Sample No.	Al <sub>2</sub> O <sub>3</sub> %	Ba ppm	CaO %	Cr ppm	Fe <sub>2</sub> O <sub>3</sub> %	K <sub>2</sub> O %	MgO %	MnO %	Na <sub>2</sub> O %	Ni ppm	P <sub>2</sub> O <sub>5</sub> %	SO <sub>3</sub> %	SiO <sub>2</sub> %	Sr ppm	TiO <sub>2</sub> %	V <sub>2</sub> O <sub>5</sub> %	LOI %	SUM %
R-107	19.10	197	3.95	22	6.26	4.94	0.55	0.22	5.02	17	0.101	1.39	55.56	298	0.29	<0.01	2.20	99.58
R-189	15.15	208	12.74	57	17.68	0.16	6.35	0.18	2.60	28	0.483	0.17	38.26	1001	5.68	0.12	0.15	99.73
R-190	7.03	454	13.60	61	25.74	0.08	7.58	0.25	1.04	38	1.062	0.56	34.75	311	7.47	0.17	<0.01	99.33
R-191	10.84	764	12.94	73	21.17	0.30	6.95	0.19	1.80	43	0.840	0.20	36.58	522	6.76	0.18	0.62	99.37
R-192	3.64	118	10.74	20	36.16	0.06	10.74	0.60	0.70	38	3.502	0.82	24.09	217	8.46	0.08	0.37	99.97
R-193	13.97	188	13.48	71	17.98	0.15	6.53	0.16	2.12	54	2.847	0.17	35.52	912	5.78	0.11	0.75	99.57
R-194	15.46	255	11.98	57	17.87	0.14	5.99	0.15	3.51	26	0.092	1.57	36.03	960	5.75	0.15	0.37	99.06
R-195	18.80	361	13.65	63	14.75	0.23	4.29	0.12	2.67	42	0.542	0.22	40.42	862	3.31	0.11	0.54	99.65
R-196	12.95	464	13.05	71	19.92	0.17	5.87	0.18	2.06	45	0.524	0.18	37.98	682	6.05	0.15	0.53	99.62
R-197	10.39	305	12.42	34	21.94	0.23	6.07	0.25	2.10	62	2.319	0.92	36.97	818	5.26	0.12	<0.01	98.99
R-198	10.98	571	10.21	2	20.58	0.51	4.86	0.32	2.81	27	2.202	0.45	38.46	665	4.36	0.02	1.45	97.21
R-199	11.77	257	20.82	314	8.33	0.72	7.10	0.15	1.08	95	1.385	0.31	41.58	341	1.94	<0.01	1.71	96.91
R-200	14.22	169	12.81	61	9.94	1.32	5.33	0.14	2.56	40	0.259	1.10	45.01	814	3.20	0.05	1.68	97.60
R-201	15.58	426	12.62	49	14.51	0.63	5.29	0.15	2.20	30	0.354	0.23	41.49	1225	5.09	0.08	0.24	98.47
R-202	13.98	331	12.89	63	16.90	0.68	5.72	0.17	1.90	27	2.139	0.26	39.62	1062	4.28	0.07	0.36	98.97
R-203	7.97	195	16.87	554	13.84	0.29	8.13	0.18	1.72	252	1.500	1.86	43.69	330	1.79	<0.01	1.81	99.65
R-204	13.38	705	12.29	24	17.46	1.92	5.46	0.18	2.72	30	2.190	0.21	37.74	996	4.84	0.10	1.00	99.49
R-205	13.38	370	15.38	69	14.65	1.43	4.43	0.19	2.08	60	1.398	0.16	39.03	956	5.86	0.04	1.63	99.67
R-206	9.73	82	13.54	51	25.75	0.12	6.90	0.25	1.38	31	0.443	0.20	35.09	400	4.71	0.33	0.34	98.79
R-207	18.08	147	13.97	75	15.57	0.16	5.25	0.11	2.14	95	0.373	0.18	39.72	823	2.73	0.16	0.39	98.83
R-208	10.88	96	14.20	24	19.41	0.10	6.04	0.16	1.59	29	2.893	0.22	35.29	604	5.99	0.17	0.50	97.45
R-209	15.84	518	13.36	22	15.02	0.17	4.77	0.12	2.48	21	2.390	0.18	38.63	1015	4.32	0.11	0.12	97.50
R-210	20.45	108	15.11	69	12.34	0.29	4.10	0.14	2.30	58	0.488	0.24	41.06	789	2.34	0.08	0.50	99.43
R-211	21.08	453	13.42	48	10.99	0.39	3.37	0.12	3.28	20	0.610	0.18	43.13	1117	2.24	0.06	0.51	99.38
R-212	9.42	307	12.55	3	22.45	0.12	7.18	0.21	1.64	31	3.052	0.17	33.79	662	6.40	0.17	<0.01	97.15
R-213	11.38	170	12.86	11	22.75	0.10	7.55	0.17	1.86	47	0.871	0.21	33.68	555	7.23	0.23	0.06	98.93
R-214	11.61	149	12.75	38	25.83	0.09	6.95	0.18	1.52	51	0.276	0.24	34.10	450	5.36	0.33	0.05	99.29
R-107R	20.50	480	2.81	2	4.82	5.47	0.55	0.15	4.91	15	0.087	0.06	57.21	306	0.27	<0.01	2.12	98.95
R-215	9.37	124	13.46	58	22.52	0.10	7.96	0.19	1.40	111	0.333	0.26	36.64	377	6.74	0.30	<0.01	99.26
R-216	14.13	275	12.98	27	17.23	0.16	6.10	0.15	2.22	33	2.622	0.19	36.96	814	4.98	0.15	0.08	97.95
R-217	7.21	124	12.87	16	25.06	0.06	9.29	0.21	1.10	28	3.524	0.39	29.74	439	7.54	0.24	<0.01	97.23
R-218	10.14	120	12.53	25	28.33	0.15	7.51	0.22	1.38	41	0.256	0.24	31.80	420	4.93	0.33	<0.01	97.82
R-219	7.91	115	11.93	4	29.31	0.22	8.30	0.23	1.22	35	0.215	0.16	31.13	286	6.87	0.37	0.10	97.96
R-220	18.48	260	13.40	25	14.37	0.22	4.26	0.12	2.66	20	0.182	0.18	39.92	843	4.01	0.13	0.39	98.32
R-221	14.70	187	12.66	13	20.87	0.17	5.84	0.15	2.05	37	0.458	0.20	35.93	653	4.77	0.23	0.14	98.16
R-222	4.43	91	11.83	<1	33.40	0.07	11.33	0.25	0.67	33	3.751	0.21	22.34	244	9.95	0.32	<0.01	98.56



# Loring Laboratories Ltd.

629 Beaverdam Road N.E.,  
Calgary Alberta T2K 4W7  
Tel: 274-2777 Fax: 275-0541



TO: 26 BT RESOURCE CO., LTD  
Suite 200, 5920 McLeod Trail S.W.,  
Calgary, Alberta  
T2H 0K2

FILE: 41275

DATE: July 22, 1999

Attn: Sudhir Jain

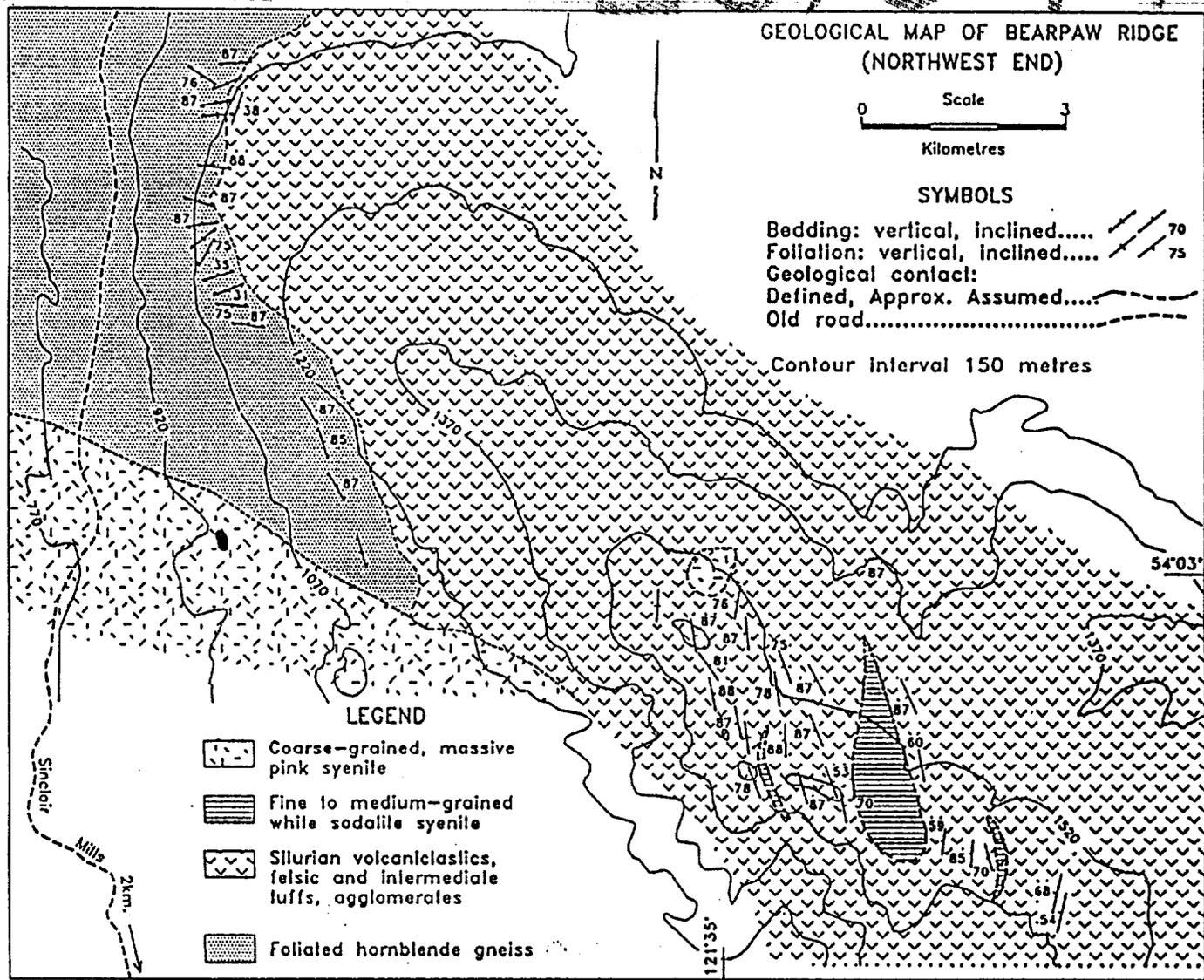
## WHOLE ROCK ANALYSIS BY ICP

Sample No.	Al <sub>2</sub> O <sub>3</sub> %	Ba ppm	CaO %	Cr ppm	Fe <sub>2</sub> O <sub>3</sub> %	K <sub>2</sub> O %	MgO %	MnO %	Na <sub>2</sub> O %	Ni ppm	P <sub>2</sub> O <sub>5</sub> %	SO <sub>3</sub> %	SiO <sub>2</sub> %	Sr ppm	TiO <sub>2</sub> %	V <sub>2</sub> O <sub>5</sub> %	LOI %	SUM %
R-223	15.52	146	11.99	<1	17.85	0.42	5.21	0.16	1.90	23	0.132	0.17	38.08	643	3.94	0.17	3.08	98.62
R-224	6.54	132	10.42	<1	32.13	0.06	10.01	0.26	0.97	30	1.012	0.15	26.51	292	9.71	0.36	<0.01	98.13
R-225	8.21	124	11.96	7	27.84	0.09	8.06	0.20	1.26	34	0.573	0.17	32.73	401	8.28	0.32	<0.01	99.70
R-226	6.57	162	11.44	<1	28.40	0.16	9.09	0.26	1.18	24	2.475	0.17	30.80	472	8.37	0.21	<0.01	99.11
R-227	17.99	309	13.20	27	15.83	0.39	4.96	0.15	2.77	20	2.179	0.20	36.75	1159	4.05	0.12	0.22	98.80
R-228	12.90	187	13.04	165	18.02	0.14	7.93	0.18	1.98	44	0.964	0.19	36.92	782	4.02	0.09	2.87	99.25
R-229	12.57	70	14.80	161	20.88	0.08	7.07	0.18	1.40	70	0.121	0.41	38.28	564	3.51	0.13	0.41	99.84
R-230	12.31	186	13.82	11	22.38	0.23	6.61	0.17	1.30	38	0.177	0.24	37.29	480	3.64	0.30	0.84	99.30
R-231	9.79	74	16.54	25	22.42	0.09	6.38	0.18	1.41	24	2.210	0.26	32.98	614	4.71	0.20	0.92	98.09
R-232	13.22	183	14.24	56	20.52	0.26	6.09	0.16	1.44	33	0.165	0.27	37.88	509	3.22	0.23	1.22	98.92
R-233	17.64	502	13.94	125	14.23	0.78	5.34	0.15	2.13	72	0.359	0.24	40.50	890	2.41	0.08	1.44	99.24
R-234	12.03	256	18.55	36	10.60	0.47	6.56	0.18	2.34	15	2.810	0.26	42.42	842	2.05	0.05	0.77	99.08
R-235	17.13	228	14.18	101	12.91	0.27	6.12	0.13	2.53	56	0.072	0.21	42.59	700	1.90	0.09	0.75	98.88
R-236	11.61	121	10.42	37	24.52	0.24	6.46	0.28	2.77	24	2.346	0.14	34.69	732	5.89	0.12	<0.01	99.49
R-237	16.13	1172	12.54	41	15.86	0.25	4.91	0.16	3.41	16	0.613	0.16	39.79	910	4.14	0.08	0.14	98.17
R-238	14.52	1382	11.38	41	16.98	0.25	4.87	0.17	3.09	16	2.014	0.16	39.76	983	4.65	0.04	<0.01	97.89
R-239	16.39	317	12.20	56	16.64	0.16	5.00	0.15	2.81	16	0.236	0.17	40.10	846	5.14	0.11	0.41	99.51
R-240	15.54	209	12.65	28	17.93	0.16	5.45	0.14	2.09	24	0.104	0.18	40.70	740	4.03	0.18	0.46	99.61
R-241	15.45	219	11.84	45	17.95	0.18	5.39	0.15	2.30	18	0.089	0.18	40.20	852	5.28	0.15	<0.01	99.13
R-242	24.85	225	14.48	45	8.38	0.18	2.54	0.07	2.51	28	0.154	0.19	43.06	1124	1.59	0.06	0.72	98.77
R-243	25.82	250	14.87	99	6.71	0.37	2.78	0.07	2.29	29	0.154	0.19	43.44	1001	1.09	0.02	0.92	98.72
R-244	22.15	206	15.59	192	8.27	0.26	4.38	0.10	2.18	63	0.169	0.20	43.73	841	1.22	0.00	0.48	98.73
R-245	26.36	262	13.98	67	6.55	0.26	1.68	0.06	2.82	12	0.125	0.18	46.24	1274	1.06	0.03	0.36	99.69
R-246	16.18	144	12.41	28	17.22	0.15	5.62	0.14	2.19	20	0.056	0.18	37.19	825	5.51	0.20	0.34	97.38
R-247	17.91	246	12.47	60	14.28	0.28	5.48	0.12	2.22	52	0.090	0.19	41.21	917	2.63	0.14	1.67	98.69
R-248	17.33	154	13.66	11	16.72	0.14	5.99	0.14	2.09	50	0.054	0.21	39.19	893	3.12	0.19	<0.01	98.82
R-249	24.88	255	15.20	77	7.47	0.22	2.56	0.07	2.34	51	0.157	0.23	43.75	1013	1.14	0.04	0.68	98.75
R-250	14.56	245	12.27	22	19.87	0.19	5.88	0.16	2.00	23	0.118	0.16	38.05	709	5.21	0.15	<0.01	98.63
R-251	21.71	87	16.88	56	11.53	0.11	3.40	0.07	1.86	84	0.045	0.20	39.91	976	1.53	0.10	2.17	99.51
R-226R	6.42	162	11.52	18	28.98	0.15	8.88	0.25	1.17	20	2.380	0.16	30.98	448	8.14	0.18	<0.01	99.23

0.2g. of sample fused with lithium metaborate and dissolved in 5% HNO<sub>3</sub>.

Certified by:

26,044



**FIGURE 2  
 GEOLOGICAL MAP OF BEARPAW RIDGE**

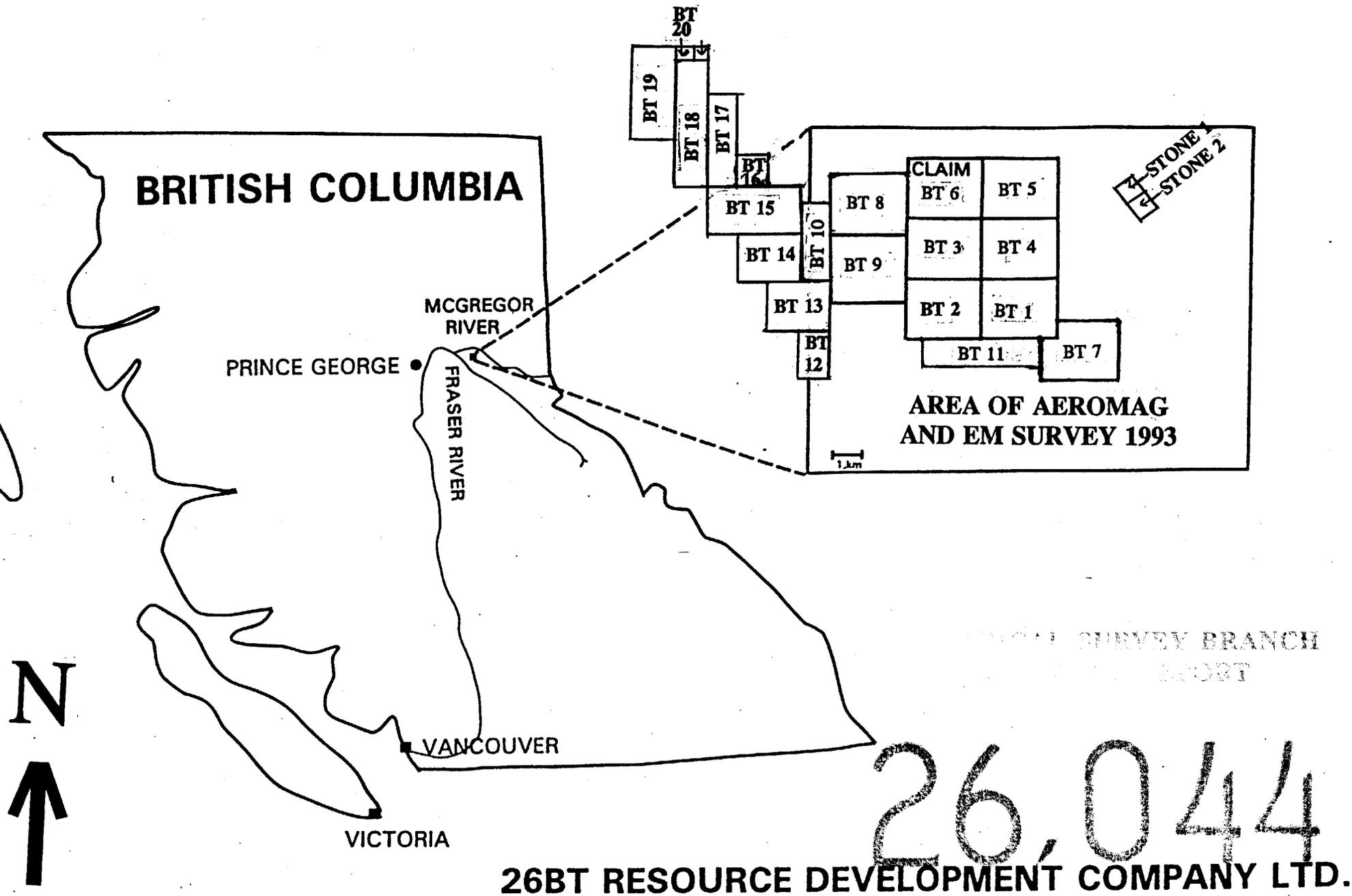


FIGURE 1  
 AREA OF AEROMAG AND EM SURVEY 1993

**CALGARY ALBERTA**

## **APPENDIX 2**

**Assessment Report  
Geological and Geochemical Work  
On The Following Claims**

**BT 1-4 ..... 313837 - 33840  
BT 5-6 ..... 313845 - 313846  
BT 7 ..... 323202  
BT 8-10 ..... 323096 - 323098  
BT 11 ..... 323203  
BT 12-17 ..... 346620 - 346625  
BT 18 ..... 346941  
BT 19 ..... 346626  
BT 20-21 ..... 347097 - 347098**

**located**

**60 km East Of  
Prince George, British Columbia  
Prince George Mining Division**

**54 degrees 03 minutes latitude North  
121 degrees 36 minutes longitude West**

**NTS 93I/4E and W**

**Project Period: June 1 to July 30, 1998**

**On Behalf Of  
26 BT Resource Development Ltd.  
Suite 200  
5920 Macleod Tr. S.W.  
Calgary, Alberta  
T2H 0K2**

**Report By:  
E.R. Kruckowski, B.Sc., P. Geol.  
September 12, 1999**

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<b>Appendix II</b>	Geochemical Analysis for the Geochemical Program
<b>Appendix III</b>	Drill Log DDH 95-2
<b>Appendix IV</b>	Mineralogical Studies

## **SUMMARY**

The BT 1-21 Claims owned by 26 BT Development Co. Ltd. are located approximately 60 kilometers east of Prince George, British Columbia, in the Prince George Mining Division. The property covers an area of Cambrian to Ordovician sediments and Silurian volcanics and sediments intruded by a variety of plutons ranging in composition from anorthosite/gabbro to sodalite syenite.

A large mafic intrusion, carrying magnetite-ilmenite-apatite and having a surface expression in the order of 25 square kilometres has been identified on the claim area. It belongs to sub-type 26.2 classification (Gabbro-anorthosite hosted iron-titanium - Gross. G.A., in Geology of Canadian Mineral Deposit Types) deposits in which host intrusive complexes are typically differentiated and include gabbro, leucogabbro, diorite, diabase, gabbro-norite and quartz monzonite.

On the 26 BT claims, concentrations of metallic iron/titanium oxides occur primarily in the gabbros in two main styles:

- 1) disseminated oxides in coarse grained gabbro host rocks with mafics less than 30 %.
- 2) as fine disseminations along mafic rich layering in highly foliated gabbros with mafic content varying from 30 % to 70% of the rock

In the period January 1 to July 30, 1999, a program was conducted on the property as follows:

1. Re-logging DDH 95 - 2 which was drilled in the area of the 1999 surveys.
2. Cutting of approximately 7.3 km of grid line to provide survey control for geological mapping and magnetometer surveys (results of survey covered in separate report). This work extended the 1998 grid an additional 1.5 km to the east within an area of high magnetics outlined in an airborne survey.
3. Geological mapping along grid lines as well as limited chain and compass lines .
4. Collection of 63 rock geochemical samples in the course of the geological survey.
5. Mineralogical studies to determine mode of occurrence of the titanium and purity of the magnetite.

Geological mapping has indicated that gabbro portion of the intrusive complex occurs along the northern and western portions of the surface exposures. The gabbro varies from a very coarse grained phase to a coarse to medium grained, highly foliated, mafic rich phase. Greatest magnetite and ilmenite appear to occur in areas of highest mafic content. The coarse grained, non foliated gabbro appears to be in contact with siliceous sediments along the northern edge. Along the contact area within the gabbro, sausseritization has led to the development of local abundant epidote extending for

several hundreds of meters into the intrusive. In addition, pyrite occurs locally in the gabbro along the contacts in amounts up to 5 %. The highly foliated gabbro appears to form a wide SE-NW trending zone between the anorthosite and the coarse grained gabbro above. The anorthosite appears to have been placed juxtaposition to the gabbro along several faults. Logging of DDH 95-2 indicates that anorthosite dykes intrude a highly foliated, mafic rich gabbro. Also local strong pyrrhotite mineralization was noted in the gabbro in the area of the dykes.

The 1999 rock geochemical program has indicated highly anomalous values for iron oxides and titanium oxides with results ranging from 6.71 to 36.16% Fe<sub>2</sub> O<sub>3</sub> and 1.06 to 9.95% Ti O<sub>2</sub>.

Mineralogical studies indicate that the gabbro is composed of plagioclase, augite, biotite, titanomagnetite, ilmenite and apatite. The titanium bearing minerals are titanomagnetite, ilmenite, biotite and augite.

Results to date indicate that the property contains large areas of magnetite-titanium-apatite bearing gabbro. The recommended program would include the following:

1. Extending the present grid to the north and south along the eastern portion to better determine the gabbro/anorthosite relationship and determine the northern boundary of the gabbro
2. Geological mapping along any new logging slashes as well as any newly placed grid lines.
3. Geochemical rock sampling in areas of rock outcrops.

Estimated cost of the program is \$ 25,000.

## **INTRODUCTION**

An exploration program designed to further test the magnetite-titanium oxide potential of the BT claims was conducted during the period January to July 30, 1999. The work expanded on airborne magnetometer surveys completed prior to 1997 and a rock and silt geochemistry and reconnaissance mapping program as well as grid work and magnetometer survey in 1998.

Work was conducted by personnel accommodated in a tent site erected on the BT 6/8 claim boundaries.

All rock geochemical samples analysis were performed by Loring Laboratories Ltd. in Calgary, Alberta.

Mineralogical studies were performed by Overburden Drilling Management Ltd from Nepean, Ontario.

## **Location and Access**

The property consisting of the BT claims is located about 60 kilometers east of Prince George, British Columbia ( figure 1). The village of Sinclair Mills is just 2 kilometers south of the southern portion of the claims. The claim area is approximately 54 degrees 3 minutes latitude north and longitude 121 degrees 36 minutes west on NTS sheet 93 I/4E and W.

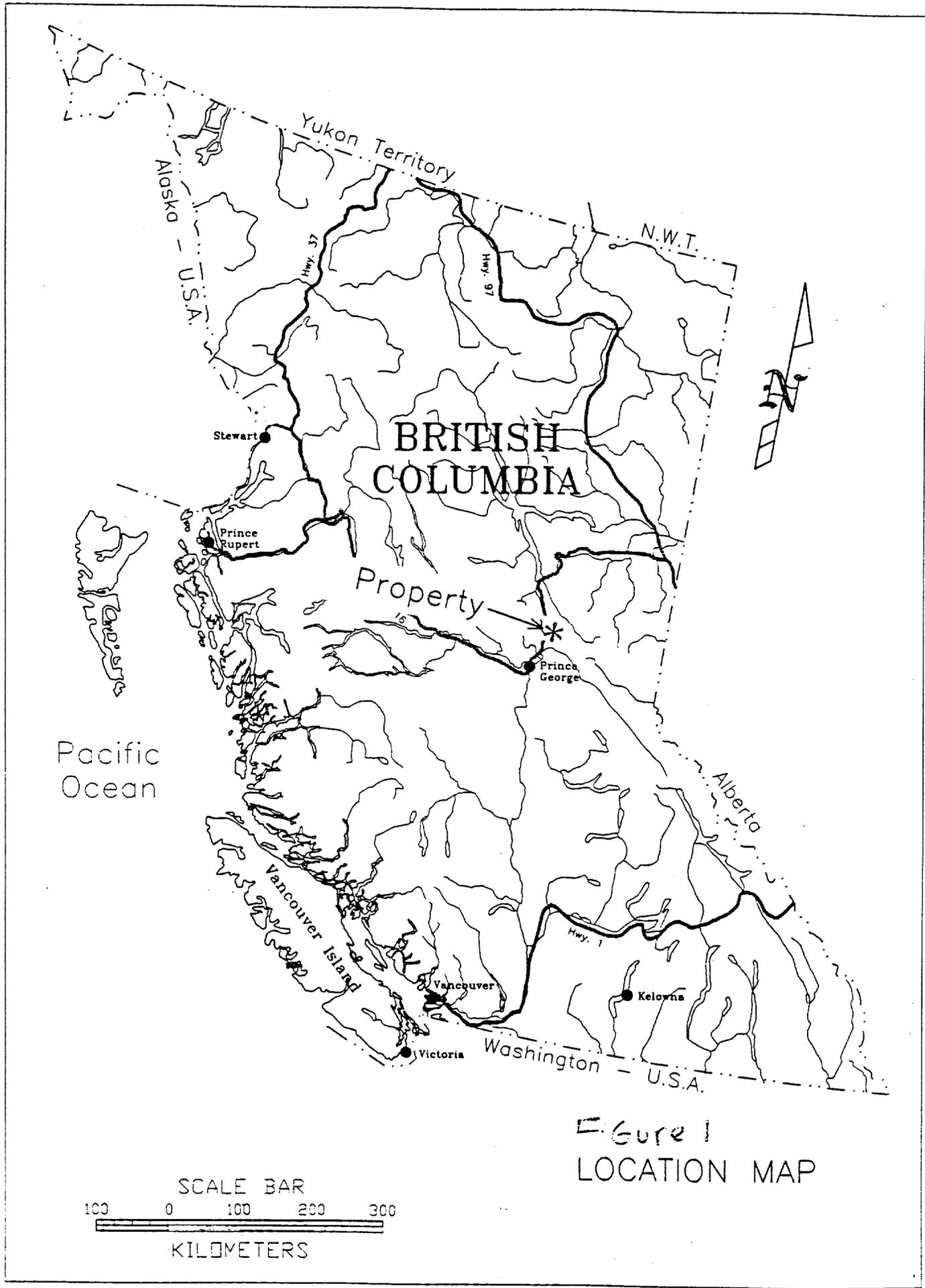
Access to the lower slopes of the property is via vehicle along logging roads from McGregor and Prince George while the upper slopes are accessed by helicopter.

Roads within logging slashes are generally overgrown or have had culverts and bridges removed by logging companies.

## **Physiography and Topography**

The 26 BT property area is situated along the northern edge of the Bearpaw Ridge. The property encompasses an area between the Fraser River and West Torpy River. The property lies at the eastern edge of the Interior Plateau and the western edge of the McGregor Range Plateau. Elevations vary from approximately 600 m on the southern portion of the BT 12 (near the Fraser River) claim to 1680 m on the eastern edge of BT-7 (along Bearpaw Ridge).

Except for north facing slopes along the top of Bearpaw Ridge and logging slashes, the property is generally heavily wooded. Recent logging slashes are present within the BT



8, 9 and 11 claims while older, more overgrown logging slashes are present within the BT 1, 2 and 3 claims.

The slopes are wooded with a variety of pine trees, poplars, willows as well as underbrush consisting of alder and devil's club. The presence of abundant windfall along with the above devil's club makes traversing the claims difficult

Numerous small intermittent streams are present in the property area while Pritchard Creek and one draining the BT 8 and 9 claims appear to flow on a yearly basis.

### **Personnel and Operations**

Personnel involved during the exploration program are listed below:

E.R. Kruckowski - Geologist (Calgary)	January 1 to July 30, 1999
M. Moorman - Prospector (Vancouver)	June 1 to July 30, 1999

Personnel in the program mobilized to the project area via vehicle from Vancouver and Calgary.

All personnel involved in the program, while on site were accommodated in the tent camp located on the BT 6/8 claim boundary. During the program, a JD 450 bulldozer was used to clear the brush off an old logging road extending across the BT 6 and part of the BT 3 claim for a distance of approximately 2 km. A four wheel drive quad provided transportation along this cleared trail as well as an overgrown logging road to the area of Line 20+00 E and 9+00 S from which point, the crew walked to the survey area.

Supplies and materials for the job were purchased in Prince George and taken to the job site via truck.

### **Property Ownership**

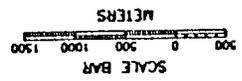
The property, approximately 75 square kms, consists of 21 modified grid claims containing 306 units. Relevant claim information is summarized below:

<u>Name</u>	<u>Tenure</u>	<u>No. Of Units</u>	<u>Expiry Date</u>
BT 1	313837	20	Oct. 02/99
BT 2	313839	20	Oct. 02/99
BT 3	313838	20	Oct. 03/99
BT 4	313840	20	Oct. 05/99
BT 5	313845	20	Oct. 06/99
BT 6	313846	20	Oct. 07/99
BT 7	323202	20	Dec. 29/99

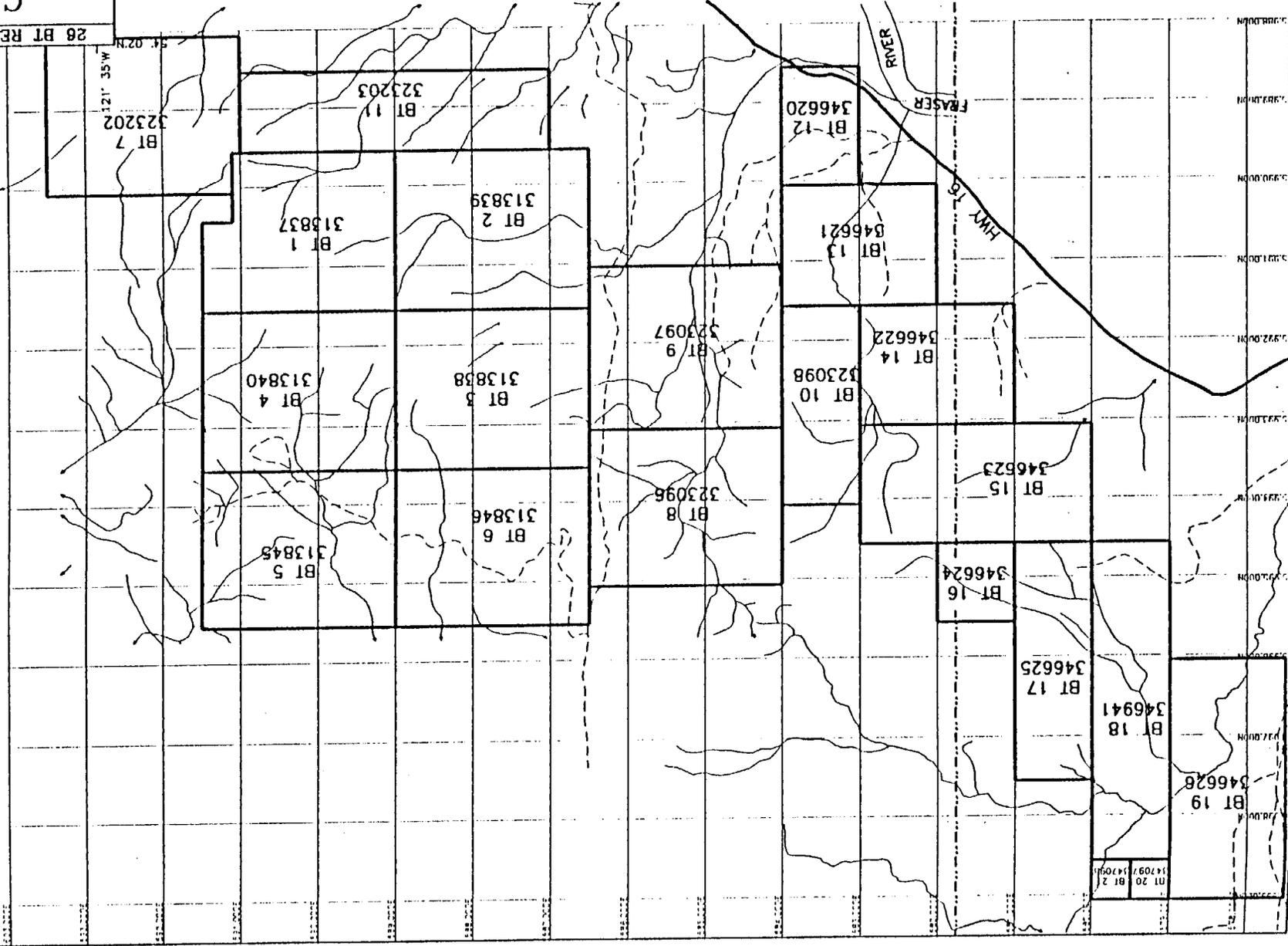
CLAIMS  
 MAP  
 PRINCE GEORGE M.O., B.C.  
 26 BT RESOURCES CO. LTD.  
 Fig. 2

LEGEND  
 ———— Creek  
 ———— Highway  
 - - - - Road  
 ———— Claim  
 ———— Boundary

121° 35' W  
 121° 40' W



Mineral Titles  
 Map 93/4W  
 Mineral Titles  
 Map 93/4E



BT 8	323096	20	Dec. 21/99
BT 9	323097	20	Dec. 21/99
BT 10	323098	10	Dec. 22/99
BT 11	323203	16	Dec. 31/99
BT 12	346620	6	June 09/99
BT 13	346621	12	June 08/99
BT 14	346622	12	June 08/99
BT 15	346623	18	June 07/99
BT 16	346624	4	June 09/99
BT 17	346625	12	June 10/99
BT 18	346941	16	June 10/99
BT 19	346626	18	June 10/99
BT 20	347097	1	June 16/99
BT 21	347098	1	June 16/99

The claims are registered in the name of 26 BT Resource Development Ltd. of Calgary. The author did not examine the claim posts and cannot verify the quality and accuracy of the staking. The exact location of these claims would be subject to further surveys. Claim location is illustrated on Figure 2 copied after available government NTS maps.

### **Previous Work**

The creeks in the vicinity of Bearpaw Ridge were in all likelihood examined for their placer potential in the late 1800's. This would have occurred as a result of the gold rush in the Cariboo area to the south.

Subsequently, prospectors have examined the Bearpaw Ridge and the underlying intrusives as a potential source for precious and base metals. Old claim posts were noted along Bearpaw Ridge in an area now covered by the BT 7 claim. Exploration activity from the late 1980's to now is quoted from an assessment report by Jain and Kelsch as follows:

*"Two of the principals of the company entered the area north and east of McGregor in 1989. This was based on projections of the trends seen in the configuration of the North American Continental mass as demonstrated by Government gravity and magnetic maps. Later, while studying reports and maps in the Provincial offices in Prince George, the magnetic feature shown on Aeromagnetic Map 1536 G of the Geophysics Division of Mines and Technical Surveys was noted. Subsequent sampling along creeks crossing the old logging road north of Sinclair Mills, yielded unusually high amounts of magnetite. The decision to stake the area at the north west end of Bearspaw Ridge was then made and carried out in 1992. An aeromagnetic survey was flown, processed and interpreted in 1993. As a result of this survey, additional areas surrounding the claims were staked. 9 holes were drilled to the depth of 100' on the claims in October 1994. The chemical analysis from the cores showed that Fe<sub>2</sub>O<sub>3</sub> content averaged between 10-20% in the holes and reached up to 35% in some zones. The magnetic separation in 20*

*samples from two holes showed that in samples with high Fe<sub>2</sub>O<sub>3</sub> content (greater than 10%), magnetite is more than 75% of total Fe<sub>2</sub>O<sub>3</sub> percentage.*

*Three holes were drilled to the depths of 300' in June 1995. Two of the holes confirmed the presence of magnetite in a variable amounts to at least 300'. The third hole was and missed the anomaly. This hole does not appear to have any commercial significance.*

*Three holes were drilled in July 1996, two to the depth of 300' and one to 500'. One hole confirmed magnetic concentration while the other two were discouraging. The cores have not been fully analyzed yet and the results of this drilling could not be incorporated in to this report."*

In the period June 15 to July 10, 1997, a program was conducted on the property including re-logging of some drill holes, petrographic studies, rock and silt geochemical sampling, reconnaissance geological mapping and magnetic separation tests.

Based on the petrographic studies, the re-logging of the core and surface mapping, it was concluded that the property is underlain by a gabbro-anorthosite intrusive complex subsequently hydrothermally altered by a later nearby syenite intrusive. The gabbro anorthosite complex corresponds with a large magnetic anomaly.

The 1997 rock geochemical program indicated highly anomalous values for iron oxides and titanium oxides with results ranging from 2.20 to 29.57% Fe<sub>2</sub> O<sub>3</sub> and 0.03 to 9.17% Ti O<sub>2</sub>. The silt sampling has also indicated highly anomalous results with values ranging from 3.30 to 36.75% Fe<sub>2</sub> O<sub>3</sub> and 0.47 to 13.84% Ti O<sub>2</sub>.

During 1998, a program consisting of gridding, geological mapping, rock and silt sampling and magnetometer surveying was completed on the property. A total of 29.1 km of grid provided survey control for the mapping, geochemical and magnetometer program. Results of the mapping indicated the continuation of the gabbro to the east and south. Magnetic surveys confirmed the results of the airborne data. Geochemical sampling indicated results varying from 5.23 % to 27.82 % Fe<sub>2</sub>O<sub>3</sub> and 0.75 to 7.76 % TiO<sub>2</sub> for the rocks collected while the silts carried from 6.52 to 30.33 % Fe<sub>2</sub>O<sub>3</sub> and 0.99 to 11.29 % TiO<sub>2</sub>.

## **GEOLOGICAL SURVEY**

### **Regional Geology**

The Geological Survey of Canada Open File 630 shows that Bearpaw Ridge is underlain by a Cambrian to Silurian age sedimentary sequence to the east with a Lower Cambrian sedimentary sequence thrust on to the above rocks in the western portion of the area. Silurian age syenites are shown intruding the Cambrian to Silurian sediments.

Along the eastern edge of the Bearspaw Ridge, just west of the Torpy River, limestone and shale of the Lower Cambrian Mural Formation have been mapped. Overlying this formation is an undivided sequence of argillaceous limestone with minor shale that may range in age from Upper Cambrian to Upper Ordovician. West of this undivided sequence are more dolomitic siltstones, dolomite and shale of the Snake Indian Formation of Middle Cambrian age. This formation appears to be overlain by an undivided sequence of argillaceous limestone with minor shale that may be from Upper Cambrian to Upper Ordovician in age.

West of the above rocks, alkalic agglomerates of Silurian age form a synclinal structure along the west slopes of Bearspaw Ridge. Sodalite syenite of Silurian age intrudes both the alkalic agglomerates and argillaceous limestone and minor shale of Upper Cambrian to Upper Ordovician age. Lenticular horizons of Nonda Formation of Silurian age have been mapped between the above agglomerates and Upper Ordovician sediments. The Nonda Formation consists of dolomite, limestone, calcareous shale and quartzite. Thick quartzite beds are indicated for the southern portions of Bearspaw Ridge.

The Gog group of undivided sediments of Lower Cambrian age have been thrust along a northwest trenching belt over the Silurian Nonda Formation in the western edge of Bearspaw Ridge.

The above rocks all have a northwest trend, similar to trends for the overall region.

### **Local Geology**

The area of the BT claims was mapped by Pell in 1987 on behalf of the British Columbia Department of Mines, Energy and Petroleum Resources. This work identified the area of the gabbro as orthogneiss and that of the anorthosite as being underlain by syenite. A full description of her mapping as well as 26 BT Resource results are included in the 1997 and 1998 geological reports by the author.

Work during 1997-1999 has identified the area of the BT claims as being underlain by an anorthosite/gabbro complex that exceeds 25 square km in area extent. Abundant magnetism is associated with the gabbro portion of the complex. Both iron, titanium and phosphate minerals appear to have been concentrated in the gabbroic part of the intrusive complex.

The gabbro appears to occur as an arcuate body extending from the west central area of the BT 8 and 9 claims through the southern part of the BT 6 claim and on to the northern part of the BT 3 claim and the western part of the BT 4 claim.

The anorthosite occurs south of the gabbro and is located within the BT claims 2, 3, 8, 9 and 11. North of the intrusive complex, siliceous sediments are present while along the south edge of the anorthosite, limestone and marble have been mapped.

Based on 1997 surveys, the eastern portions of the BT 2 and BT 4-6 claims appear to be underlain by a sedimentary sequence including cherty, thinly bedded sediments, limestone/dolomite and argillites. The cherts and/or quartzites consist of siliceous very fine grained rocks with individual beds from 1-2 cm thick. The rocks vary from light gray to light green in color. Along the contacts with the gabbro, the siliceous sediments have been altered to hornfels containing up to 5% pyrite. The limestones are dark gray in color with local brecciation and subsequent calcite filling along fractures. The argillites are fissile, black and easily eroded. Based on the GSC Open File 630, it appears that the cherts may be part of the Nonda Formation of Silurian age. The limestone and argillite is probably of Upper Cambrian to Upper Ordovician in age.

Dark gray limestone was noted in the southern portion of the BT 11 claim, while a gray marble unit is exposed in a creek bed on the BT 9 claim.

The anorthosite consists of a coarse grained, feldspar rich, pink to white intrusive with a low mafic content, generally less than 10%. Locally very coarse grained varieties contain 1-2% mafics that appear to have been altered to green chlorite. The phenocrysts occur in an equigranular habit and locally the feldspars are up to 6 cm in length. Initially the rock was identified as syenite in hand specimens corresponding to Pell's classification. However, thin section work indicated that the K-feldspar were formed by the potassic alteration of plagioclases. Because of the low mafic content, the original rock type appears to be an anorthosite. Contacts of the anorthosite with the intruded country rocks were not seen in the course of the survey. Contacts with the gabbro were not seen as well, although it may be a gradational one.

Initially, it was speculated that the anorthosite may have been the first intrusion emplaced due to the strong subsequent alteration of the plagioclase by the gabbro. However, in logging DDH-96-2, it appears that narrow anorthosite dykes have intruded the gabbro. These may be late stage events rather than indicating a later emplacement of the anorthosite.

The gabbro varies from a coarse equigranular variety to a thinly foliated, gray to dark gray rock with mafics forming bands from 1mm to 1cm in width. The gabbro contains from 10-70% mafics as determined visually. The intrusive always exhibits some magnetism whether weak or strong. Three different varieties of gabbro ( based on texture and mineralogy ) have been noted in claim group and are outlined below:

1. Coarse grained equigranular intrusive with mafics approximately 15-30%, generally moderately magnetic with coarse blebs of magnetite occurring between mineral grains.
2. Highly foliated, highly magnetic black rock with mafics forming layers up to 1 cm wide and ranging from 30% to 70%.

3. Coarse grained, equigranular variety with abundant local epidote found near the contacts with siliceous sediments. It may well be a variety of Unit 1 above that has had the plagioclase sausseritized to epidote.

Locally coarse grained varieties are found within areas of highly foliated rocks and vice versa. This indicates that a certain amount of movement was present in the magma chamber during the cooling process. Overall, it appears that the highly foliated unit forms a band approximately 500 m wide trending NW-SE for a distance of 6 km, roughly 500 m from the northern boundary. Coarse grained equigranular varieties appear to separate the foliated variety from the sediments. To the south of the highly foliated variety, coarse banding is evident in the gabbro. Zones or bands of predominantly plagioclase with 10% mafics form layers up to 5-10 m wide. These are interlayered with more mafic horizons that may contain up to 25% mafics. Layering in these units generally parallels the overall foliation noted in the highly foliated variety. As the anorthosite is approached to the south, mafic content is greatly decreased overall.

Foliation in the gabbro is basically northwest trending and vertical along the eastern most portions examined. As the anorthosite is approached, the foliation shows a pronounced westerly dip. This may indicate a possible extension of the gabbro beneath the anorthosite to the west as the foliation appears to parallel the contact. This indicates that if the anorthosite crystallized out first, the highly foliated variety underlying it represents the base of the intrusive complex. This would suggest that the coarse grained equigranular variety represents a phase of intrusion whereby the mafic portion did not have time to settle out of the melt.

In weathered outcrop, the more mafic portions of the gabbro show a pronounced "ribbed" appearance. It appears that the magnetite and ilmenite occurring along the mafic bands causes these portions to be more resistive to weathering.

Within the highly foliated gabbro, a later phase of cross-cutting gabbroic intrusion was noted. In several localities on the BT 3 claim, narrow 1 cm stringers of gabbro cross-cut the earlier foliated gabbro. Even in the later intrusion, mafics show a pronounced orientation parallel to the contact walls. In the north central portion of BT 3, within a logging slash, a 1 m wide, non-foliated, magnetite-rich gabbro dyke is present. The contact of the dyke with the earlier foliated gabbro is irregular but definitely cross-cuts foliation.

It is possible that the coarse grained equigranular variety represents a later gabbro phase that intruded into the area between the layered or foliated variety and the sediments. Along the contact areas, sausseritization of the plagioclase occurred while within the main intrusive little or no alteration occurred.

Based on work during 1997-1999, a large mafic intrusion carrying magnetite-ilmenite-rutile and having a surface expression in the order of 25 square kilometers on the claim

area has been identified. It belongs to sub-type 26.2 classification (gabbro-anorthosite hosted iron-titanium-Gross. G.A., in Geology of Canadian Mineral Deposit Types) deposits in which host intrusive complex are typically differentiated and include gabbro, leucogabbro, diorite, diabase, gabbro-norite and quartz monzonite.

Titaniferous magnetite deposits of sub-type 26.2 range in size from one million tonnes to more than 1000 million tonnes. They usually contain from 20-45% iron and from 2-20% TiO<sub>2</sub>. Ratios for Fe:Ti range from 40:1 to 2:1 and are commonly about 5:1. The average content of the V is about 0.25%, Cr is present in trace amounts and the content of P<sub>2</sub>O<sub>5</sub> is variable, but usually less than 7.1%.

The presence of conformable layers within the gabbro phase of the complex indicates an origin by crystal settling and accumulation on the floor of the magma chamber. This would indicate some prior plagioclase crystallization to yield a residual melt rich in Fe and Ti. If this is the case, then the anorthosite noted within the 26 BT claims was the first to be emplaced. This implies that the intrusive complex has been tilted and partially overturned exposing the gabbro formed at the bottom. Dykes of anorthosite cutting the gabbro, as in DDH-95-2, may be late stage events.

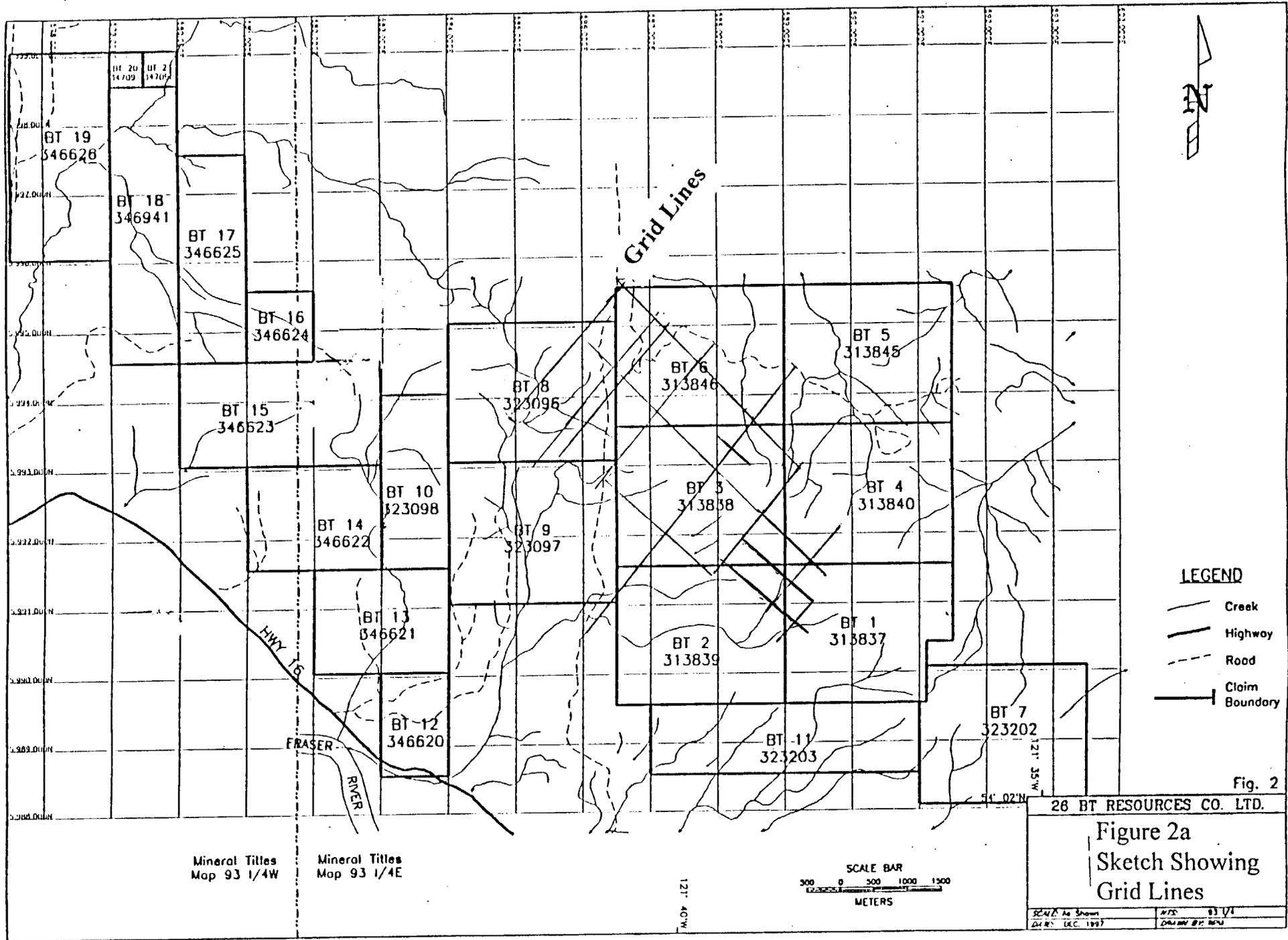
Work during 1999 was restricted to areas of new logging slashes in the BT 6 claim as well as extending grid lines on both BT 4 and 1 claims from the existing grid on the BT 3 claims. A total of 7.9 km of grid lines was cut (Figure 2a) and used for survey control. In addition, chain and compass traverses were used in mapping and sampling in areas not covered by grid lines. Figure 3 and 4 show the geology of the BT claims surveyed in the 1997-1999 work. Based on work to date it appears that within the BT 2 and BT 9 claim, fault zones separate the anorthosite from the gabbro. Within line BT 9, on L 12+00E, strong faulting along a creek bed at 040 deg. and dipping 75 deg. south appears to separate gabbro from anorthosite to the south. In the area of sample R-198, strong faulting has resulted in a crushed gabbro. Faulting in the area along a NW-SE direction appear to separate the gabbro from the anorthosite to the SW.

In the area of L 5+00S and 25+00 E, very mafic, magnetite rich rocks were noted. These appear to be the most magnetic rocks mapped to date.

In the area of R-197, strong faulting is indicated in a creek bed striking 240 deg./vertical as evidenced from slickensides on a rock surface. The rock in this vicinity was all crushed over a width of at least 3 meters.

### **Mineralogy**

According to available literature (GSPP 959) sub-type 26.2 deposits consist of layered disseminated concentrations and massive irregular to tabular intrusions of titaniferous magnetite, titanomagnetite, magnetite and ilmenite. These minerals are distributed as discrete grains and as granular and exsolution intergrowths.



**LEGEND**

-  Creek
-  Highway
-  Road
-  Claim Boundary

Fig. 2

28 BT RESOURCES CO. LTD.

Figure 2a  
Sketch Showing  
Grid Lines



Mineral Titles  
Map 93 1/4W

Mineral Titles  
Map 93 1/4E

SCALE As Shown	M/S	93/1/1
DATE DEC 1997	DRAWN BY: M/S	

In May 1999, a resolution of the Ti mineralogy for the gabbro was undertaken by Overburden Drilling Management Limited. An electron scanning microscope and energy dispersive x-ray analytical investigation was performed on gabbro samples from drill core. Results of this work indicated that the gabbro analyzed was composed of 50-60 % plagioclase, 30-35 % augite, 3-5 % biotite, 8-10 % titanomagnetite, 1-2 % ilmenite and 1-2 % apatite.

The mineralogy of the Ti bearing minerals are excerpted from a letter report by Overburden as follows:

*“The Ti bearing minerals (Table 1) are titanomagnetite, ilmenite, biotite and augite. Rutile is absent, even at micron scale, corroborating our earlier heavy mineral processing results where none was found. Titanomagnetite is on average ten times more abundant than ilmenite (Plates 1a, b) although in local patches the two minerals occur in subequal concentrations (Plate 1c). Both minerals occur in close association with the ferromagnesian silicate minerals (augite and biotite; Plates 1a to 1c), not with plagioclase. The titanomagnetite contains approximately 15% TiO<sub>2</sub> in solid solution (Fig. 1a) whereas the ilmenite contains 55% (Fig. 1b). In some grains, part of the TiO<sub>2</sub> has exsolved from the magnetite, forming thin (maximum 0.02 mm) parallel ilmenite lamellae (Plate 1d) and lowering the TiO<sub>2</sub> content of the inter-lamellae titanomagnetite to 10% (Fig. 1c). The ilmenite contributes only 28% of the TiO<sub>2</sub> in the gabbro compared to 57% from the titanomagnetite due to the much greater abundance of titanomagnetite (Table 1). The balance is contributed by the augite which contains 1% TiO<sub>2</sub> (Fig. 1d) and biotite which contains 5% TiO<sub>2</sub> (Fig. 1e).*

*Much of the gap between the Fe<sub>2</sub>O<sub>3</sub> content of the Fe-Ti oxide minerals in our concentrates and the 8-16% Fe<sub>2</sub>O<sub>3</sub> whole rock values (Table 2) is explained by the abundant augite and biotite which together would be expected to contribute about 6-8% Fe<sub>2</sub>O<sub>3</sub>. The Fe<sub>2</sub>O<sub>3</sub> gap narrows in relation to total Fe<sub>2</sub>O<sub>3</sub> as the titanomagnetite content of the rock increases. The remaining gap is explained by the very fine grain size of part of the titanomagnetite and ilmenite; 20-30% by volume is silt-sized (<0.1 mm; Plate 1a), well below the 0.18-0.25 mm grain size used in our recovery tests which were intended to simulate recoveries achievable in an actual mining and milling operation. The larger, recoverable titanomagnetite and ilmenite grains are in the 0.2 to 0.4 mm range (Plates 1a to 1c) which rather than having sharp, mill-friendly boundaries, much of the titanomagnetite is shrouded in biotite (Plates 1b, d).*

*The apatite occurs as isolated crystals, mainly in association with plagioclase (Plates 1b, c, d). Most grains are much smaller than the 0.18 mm cut-off used in our processing test; this explains the missing P<sub>2</sub>O<sub>5</sub> mentioned by Sudhir.*

*An interesting feature of the gabbro is the presence of barian feldspar (hyalophane) lamellae in the plagioclase (Plates 1b, d, f; Figs. 1f, g). This explains the high Ba content (0.5-1.5%; Table 2) of the gabbro and the absence of barite in our heavy mineral concentrates.”*

Based on the above work, Overburden concluded that:

1. Rutile is absent in the samples tested
2. Approximately 60% of the TiO<sub>2</sub> value resides in solid solution form in titanomagnetite, requiring chemical extraction.
3. Although significant ilmenite is present, part of it occurs as thin exsolution lamellae rather than discrete grains.
4. Much of the titanomagnetite is shrouded in biotite.
5. Approximately 20-30% by volume of the titanomagnetite and ilmenite occurs in small grains.
6. Most of the apatite is fine-grained.

For more complete descriptions of the Overburden analysis, refer to Appendix IV.

Based on surface work on the 26 BT claims, concentrations of metallic iron/titanium oxide occur in three different styles within the gabbro portion of the intrusive complex:

1. Disseminated oxides as coarse patches in coarse grained host rock.
2. As fine disseminations in mafic rich layers generally 1-5 cm thick forming greater than 30 and sometimes up to 70% of the rock.
3. As disseminated concentrations in late stage dykes and intrusions transacting the lithified gabbro complex.

Sulfides present in the intrusive vary from zero to minor amounts. These include pyrrhotite, pyrite and very rare chalcopyrite. Pyrrhotite is most abundant along contact zones of basaltic dykes intruding cherts.

Based on studies to date, further exploration efforts should be directed at locating possible areas of slow cooling of the Ti rich melt. This may either be in the upper or anorthosite portion of the intrusive complex or in an area of abundant CO<sub>2</sub> fluids, possibly along limestone contacts. During slow cooling the titanium component in titanomagnetite may be exsolved to form either discrete lamellae of ilmenite in magnetite or granular exsolutions of ilmenite around magnetite grains. In addition, due to the slow cooling, magnetite and ilmenite grains may be much larger than presently found to date on the property. In the presence of CO<sub>2</sub> rich fluids, titanomagnetite grains can purify themselves of the titanium content and the resultant ore mineralogy is one of interlocking discrete grains of magnetite and ilmenite.

It is recommended that exploration be concentrated in the southern and western portions of the claim areas to determine if the above situation is present.

### **GEOCHEMICAL SURVEYS**

## **Introduction**

Reconnaissance rock geochemical samples were taken from a variety of rock types on the BT 2,3, 4, and 6 claims. Samples were collected from outcrops located in the vicinity of the grid lines and were as representative of the main rock types as possible. Sample location maps are as shown in Figure 5 and 6 in relation to grid lines, roads and creeks.

The location maps were prepared from 1:15,000 digitized maps with just the creeks and roads shown. Altogether, 63 rock samples were collected. Locations for the samples were fixed in the field by reference to the grid lines and chain and compass traverses.

## **Field Procedure and Laboratory Technique**

Rock samples were taken in the field with a prospectors' pick and collected in standard plastic sample bags. All samples were of a grab nature and were taken in such a manner as to reflect the nature of the outcrops. These samples varied from 1 large piece to a variety of small pieces with total sample weight ranging from 0.5 to 2.0 kg. Complete descriptions of the rock samples in terms of type are located in Appendix I and all analyses conducted on the samples are located in Appendix II.

All rock samples were analyzed for the major elements at the Loring Laboratory Ltd. facilities in Calgary, Alberta.

For the major element analysis, rock samples were first crushed to minus 10 mesh using jaw and cone crushers. Then 250 grams of the minus 10 mesh material was pulverized to minus 140 mesh using a ring pulverizer. A portion of this prepared sample is then mixed with a flux and fused. The resulting melt is poured into an acid mixture and completely dissolved. The elements are determined by atomic absorption spectrophotometry. The major elements are usually calculated as oxides. For the analysis, a loss on ignition is done. A portion of the prepared sample is weighed into a ceramic dish and placed in a furnace. The temperature is gradually increased up to 950 deg. Celsius and held for 16 hours. After cooling, the sample is re-weighed to determine the loss.

For the ICP analysis, a 1.00 gram portion of the minus 140 mesh material is digested with aqua regia for 2 hours at 95 degrees Celsius and made up to a volume of 20 mls prior to the actual analysis in the plasma. The absolute amounts were determined by comparing the analytical results to those of prepared standards.

## **Statistical Treatment**

A cumulative frequency plot to determine background and threshold values (greater than threshold is considered anomalous) was not conducted for the results. Rather, for the rock geochemistry, the average TiO<sub>2</sub> content for igneous rocks was used as a guide

(GSPP 959-A). These are 1.32 and 1.13% TiO<sub>2</sub> in 2 different averages for a variety of gabbros and 0.32% TiO<sub>2</sub> in one average for a variety of anorthosites. Any results enhanced in TiO<sub>2</sub> would also be generally enhanced in Fe<sub>2</sub>O<sub>3</sub>.

### **Anomalous Zones**

The geochemical program indicated anomalous values both for the rock and silt geochemical programs. Rock sampling in the 1999 rock geochemical program has indicated highly anomalous values for iron oxides and titanium oxides with results ranging from 6.71 to 36.16% Fe<sub>2</sub>O<sub>3</sub> and 1.06 to 9.95% Ti O<sub>2</sub>. The work indicated that the area of gabbro was highly anomalous in both Fe<sub>2</sub>O<sub>3</sub> and TiO<sub>2</sub> content. Figures 5 and 6 show the location of the samples which indicate oxide values for the rocks in addition to the P<sub>2</sub>O<sub>5</sub> values.

The 1999 work has indicated enhanced Fe-Ti values along line 5+00S and 25+00 E in an area of the highly foliated gabbro. This area is in the center of a large magnetic anomaly. The area of the above location should be more extensively explored through rock geochemistry and diamond drilling.

Estimated cost of this portion of the program would be \$25,000.

### **DRILL CORE LOGGING**

In January 1999, drill hole 95-2 was relogged using the 1997 petrographic work as the basis for rock unit identification.

Drill hole 95-2 was drilled to a depth of 91.5 m on the BT 4 claim to test the southern edge of a large magnetic anomaly. The hole intersected predominantly gabbro with some narrow anorthosite dykes at depth. The gabbro was a coarse grained, light gray rock with approximately 30 % mafics, predominantly biotite showing local weak alteration to chlorite. Magnetite was present as coarse grains approximately 1-2 % of the rock. At 38.7 m and down hole, stronger magnetite mineralization was noted along with an increase of pyroxenes. Between 57 to 73 m, three narrow anorthosite dykes were noted. Inclusions of gabbro are present in the wall areas of the dykes. Abundant pyrrhotite was noted in several areas of the core, generally in the vicinity of the anorthosite dykes.

For a more complete description, refer to Appendix III.

### **CONCLUSION**

1. The property covers an area of Cambrian to Ordovician sediments and Silurian volcanoclastics and sediments intruded by a variety of plutons ranging from anorthosite/gabbro to sodalite syenite.

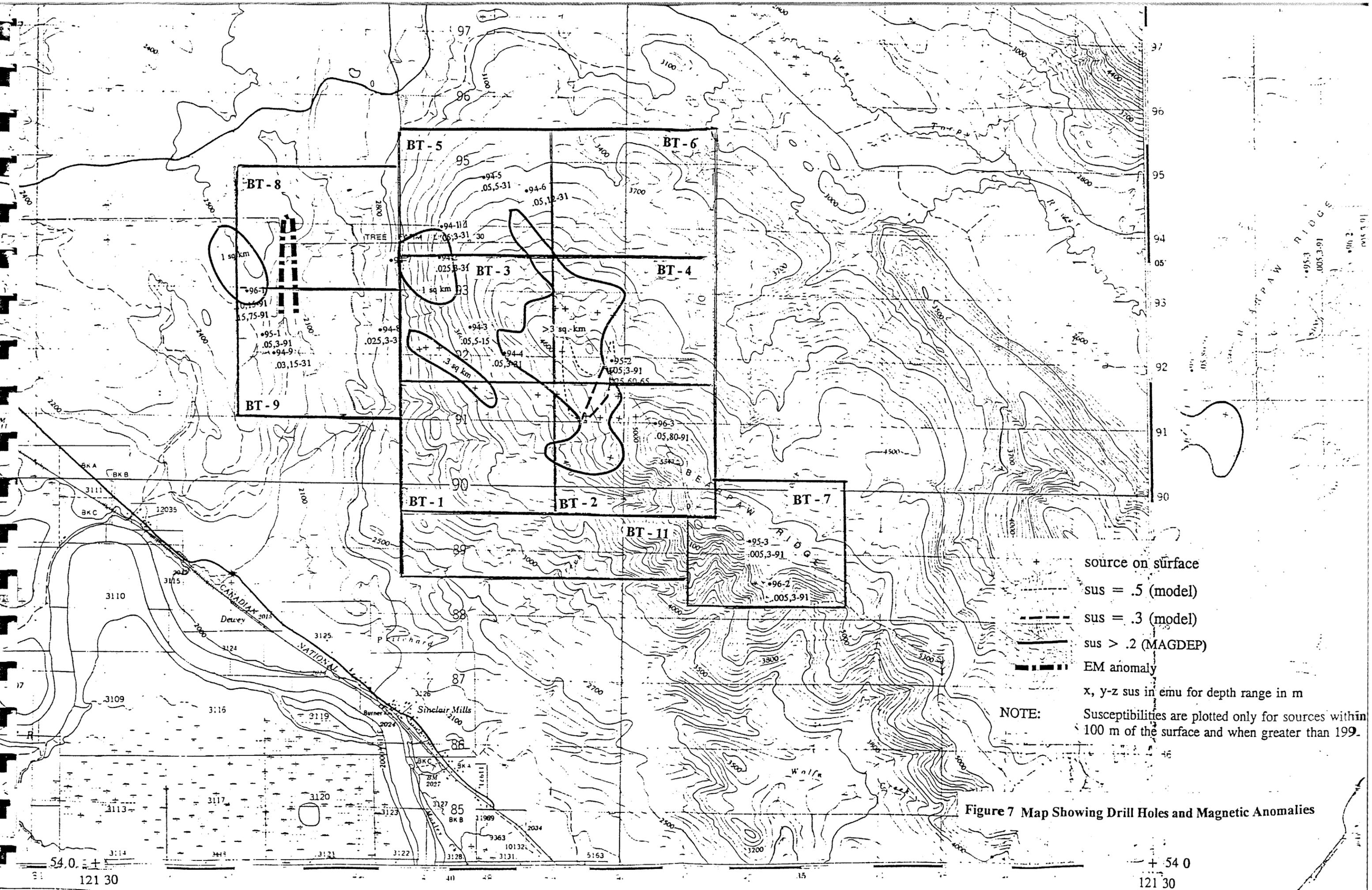


Figure 7 Map Showing Drill Holes and Magnetic Anomalies

2. A large mafic intrusion, carrying magnetite and ilmenite having a surface expression of 25 square km has been identified on the claim area.
3. On the 26 BT claim, concentrations of metallic iron/titanium oxides occur in three different styles:
  - a) disseminated oxides in coarse grained host rocks
  - b) within mafic rich layers generally 1-5 cm thick forming greater than 30 and sometimes up to 70% of the rock. Oxides occur as fine disseminations
  - c) as disseminated concentration in late stage dykes and intrusions transacting the lithified gabbro complex
4. The occurrence on the 26 BT claim is of subtype 26.2, which can have a range in size from one million tonnes to more than 1000 million tonnes.
5. In the period January 1 to July 30, 1999, a program was conducted on the property as follows:
  1. Re-logging DDH 95 - 2 which was drilled in the area of the 1999 surveys.
  2. Cutting of approximately 7.3 km of grid line to provide survey control for geological mapping and magnetometer surveys (results of survey covered in separate report). This work extended the 1998 grid an additional 1.5 km to the east within an area of high magnetics outlined in an airborne survey.
  3. Geological mapping along grid lines as well as limited chain and compass lines .
  4. Collection of 63 rock geochemical samples in the course of the geological survey.
  5. Mineralogical studies to determine mode of occurrence of the titanium and purity of the magnetite.
6. Geological mapping has indicated that the gabbro portions of the intrusive complex occurs along the eastern and southern portion of the claim area..
7. The gabbro varies from a very coarse grained phase to a highly foliated, mafic rich phase.
8. The 1999 rock geochemical program has indicated highly anomalous values for iron oxides and titanium oxides with results ranging from 6.71 to 36.16% Fe<sub>2</sub> O<sub>3</sub> and 1.06 to 9.95% Ti O<sub>2</sub> The more iron and titanium rocks are related to the more mafic portion of the gabbro.
9. Mineralogical studies indicate that the gabbro is composed of plagioclase, augite, biotite, titanomagnetite, ilmenite and apatite. The titanium bearing minerals are titanomagnetite, ilmenite, biotite and augite

10. Results to date indicate that the property contains large areas of magnetite-titanium-apatite bearing gabbro.
11. The recommended program would include further gridding, mapping and rock sampling.
12. Estimated cost of the program is \$ 25,000.

## **RECOMMENDATIONS**

The recommended program would include the following:

1. **Gridding**  
The present grid would be extended by approximately 6 km . Line 30+00 E would be extended to the west to explore the region underlain by the anorthosite. It would also be extended to the east to outline the eastern contact of the gabbro.
2. **Geological Mapping**  
Mapping would be completed along these extended grid lines, creek beds and cleared out old logging roads and or new logging slashes.
3. **Geochemical Surveys**  
Further rock and silt geochemistry to expand on the 1997 to 1999 surveys. This would be conducted in conjunction with the geological mapping.

### **Estimated Cost of the Program is as follows:**

1. Gridding	
6.0 line kilometers @ \$400/km	\$2,400.00
2. Personnel	
1 geologist for 20 days @ \$300/each/day	\$6,000.00
1 assistants for 20 days @ \$200/day	\$4,000.00
3. Geochemical Analysis	
200 samples @ \$20/sample	\$4,000.00
4. Rentals, truck, communications	\$1,500.00
5. Subsistence, hotel	\$1,500.00
6. Mobilization/demobilization	\$1,500.00
7. Report, drafting, etc.	\$2,500.00
8. Contingency	<u>\$1,600.00</u>
<b>Total</b>	<b>\$ 25,000.00</b>

## **REFERENCES**

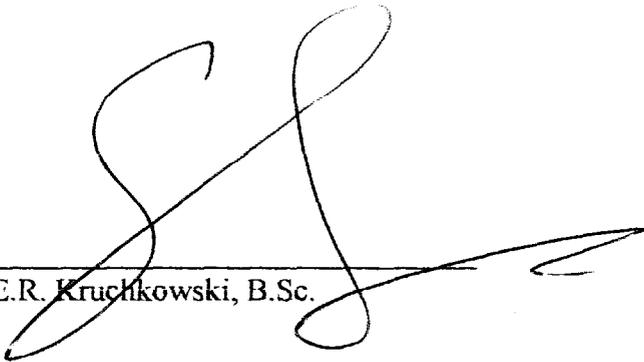
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**STATEMENT OF CERTIFICATE**

I, Edward R. Kruchkowski, geologist, residing at 23 Templeside Bay, N.E., in the City of Calgary, in the Province of Alberta, hereby certify that:

1. I received a Bachelor of Science degree in Geology from the University of Alberta in 1972.
2. I have been practicing my profession continuously since graduation.
3. I am a member of the Association of Professional Engineers, Geologists and Geophysicists of Alberta.
4. I am a consulting geologist working on behalf of 26 BT Resources Co. Ltd.
5. This report is based on a review of reports, documents, maps and other technical data on the property area and work done by myself on the property in 1997 to 1999.
6. I authorize 26 BT Resources Co. Ltd. to use information in this report or portions of it in any brochures, promotional material or company reports.

Sept 17/99  
Date

  
E.R. Kruchkowski, B.Sc.

**Appendix I**

**Description of Rock Geochemical Samples**

R-189	Highly foliated, mafic rich gabbro, strongly magnetic. <b>Fe<sub>2</sub>O<sub>3</sub> - 17.68 %</b> <b>TiO<sub>2</sub> - 5.68 %</b>
R-190	Highly foliated, mafic rich gabbro. <b>Fe<sub>2</sub>O<sub>3</sub> - 25.74 %</b> <b>TiO<sub>2</sub> - 7.47 %</b>
R-191	Very coarse grained gabbro, coarse blebs magnetic, mafics approximately 25%, strongly magnetic. <b>Fe<sub>2</sub>O<sub>3</sub> - 21.17 %</b> <b>TiO<sub>2</sub> - 6.76 %</b>
R-192	Highly foliated gabbro, mafics approximately 60%, strongly magnetic. <b>Fe<sub>2</sub>O<sub>3</sub> - 36.16 %</b> <b>TiO<sub>2</sub> - 8.46 %</b>
R-193	Outcrop is highly foliated gabbro - magnetic with approximately 30% mafics. <b>Fe<sub>2</sub>O<sub>3</sub> - 17.98 %</b> <b>TiO<sub>2</sub> - 5.78 %</b>
R-194	Strongly magnetic, mafics approximately 40%. <b>Fe<sub>2</sub>O<sub>3</sub> - 17.87 %</b> <b>TiO<sub>2</sub> - 5.75 %</b>
R-195	Outcrop is coarsely crystalline equigranular gabbro, mafics approximately 25%, moderately magnetic. <b>Fe<sub>2</sub>O<sub>3</sub> - 14.75 %</b> <b>TiO<sub>2</sub> - 3.31 %</b>
R-196	Foliated mafic rock gabbro, mafics approximately 40%, magnetic. <b>Fe<sub>2</sub>O<sub>3</sub> - 19.92 %</b> <b>TiO<sub>2</sub> - 6.05 %</b>
R-197	Crushed gabbro, sample of crushed material, mafics approximately 30%. <b>Fe<sub>2</sub>O<sub>3</sub> - 21.94 %</b> <b>TiO<sub>2</sub> - 5.26 %</b>
R-198	Highly foliated crushed gabbro, highly weathered, mafics approximately 30-40%. <b>Fe<sub>2</sub>O<sub>3</sub> - 20.58 %</b> <b>TiO<sub>2</sub> - 4.36 %</b>
R-199	Fine grained hornfels volcanic, non-magnetic, minor epidote plus chert intrusive veinlet? Highly chloritic. <b>Fe<sub>2</sub>O<sub>3</sub> - 8.33 %</b> <b>TiO<sub>2</sub> - 1.94 %</b>
R-200	Medium grained equigranular gabbro, weakly magnetic. Local fine pyrite veinlets, chloritic, mafics approximately 25%. <b>Fe<sub>2</sub>O<sub>3</sub> - 9.94 %</b> <b>TiO<sub>2</sub> - 3.20 %</b>
R-201	Coarse grained, primarily mafics, moderately magnetic gabbro, mafics approximately 80%.

	<b>Fe<sub>2</sub>O<sub>3</sub> - 14.51 %</b>	<b>TiO<sub>2</sub> - 5.09 %</b>
R-202	Coarse grained mafic rock crystalline with mafics approximately 20%, minor pyrite, moderately magnetic.	
	<b>Fe<sub>2</sub>O<sub>3</sub> - 16.90 %</b>	<b>TiO<sub>2</sub> - 4.28 %</b>
R-203	Highly rusty, medium grained gabbro, crystalline with coarse mafic blebs, local fine pyrite approximately 5%, magnetic only in mafic blebs.	
	<b>Fe<sub>2</sub>O<sub>3</sub> - 13.84 %</b>	<b>TiO<sub>2</sub> - 1.79 %</b>
R-204	Coarse grained crystalline gabbro mafics approximately 30%, strongly magnetic.	
	<b>Fe<sub>2</sub>O<sub>3</sub> - 17.46 %</b>	<b>TiO<sub>2</sub> - 4.84 %</b>
R-205	Course grained crystalline gabbro, mafics approximately 20%, minor pyrite, very weakly magnetic.	
	<b>Fe<sub>2</sub>O<sub>3</sub> - 14.65 %</b>	<b>TiO<sub>2</sub> - 5.86 %</b>
R-206	Outcrop is coarse crystalline gabbro, mafics approximately 30%, strongly magnetic.	
	<b>Fe<sub>2</sub>O<sub>3</sub> - 25.75 %</b>	<b>TiO<sub>2</sub> - 4.71 %</b>
R-207	Sample is coarsely crystalline gabbro, mafics approximately 30%, strongly magnetic.	
	<b>Fe<sub>2</sub>O<sub>3</sub> - 15.57 %</b>	<b>TiO<sub>2</sub> - 2.73 %</b>
R-208	Mafics approximately 40-50%, highly magnetic.	
	<b>Fe<sub>2</sub>O<sub>3</sub> - 19.41 %</b>	<b>TiO<sub>2</sub> - 5.99 %</b>
R-209	Mafics approximately 20%, moderately magnetic, coarse crystalline.	
	<b>Fe<sub>2</sub>O<sub>3</sub> - 15.02 %</b>	<b>TiO<sub>2</sub> - 4.32 %</b>
R-210	Coarsely crystalline gabbro, mafics approximately 30%, moderately magnetic.	
	<b>Fe<sub>2</sub>O<sub>3</sub> - 12.34 %</b>	<b>TiO<sub>2</sub> - 2.34 %</b>
R-211	Outcrop is coarsely crystalline gabbro, mafics approximately 30%, moderately magnetic.	
	<b>Fe<sub>2</sub>O<sub>3</sub> - 10.99 %</b>	<b>TiO<sub>2</sub> - 2.24 %</b>
R-212	Highly foliated gabbro, mafics approximately 40%, strongly magnetic. Coarse crystalline.	
	<b>Fe<sub>2</sub>O<sub>3</sub> - 22.45 %</b>	<b>TiO<sub>2</sub> - 6.40 %</b>
R-213	Outcrop highly foliated, mafic rich gabbro, coarse crystalline, strongly	

	magnetic.	<b>Fe<sub>2</sub>O<sub>3</sub> - 22.75 %</b>	<b>TiO<sub>2</sub> - 7.23 %</b>
R-214	Outcrop is highly mafic, mafics approximately 60%, highly magnetic, coarse crystalline.	<b>Fe<sub>2</sub>O<sub>3</sub> - 25.83 %</b>	<b>TiO<sub>2</sub> - 5.36 %</b>
R-215	Outcrop is coarsely crystalline gabbro, strongly magnetic, mafics approximately 50%.	<b>Fe<sub>2</sub>O<sub>3</sub> - 22.52 %</b>	<b>TiO<sub>2</sub> - 6.74 %</b>
R-216	Outcrop is coarse crystalline gabbro, mafics approximately 25%, weakly magnetic, highly weathered sample.	<b>Fe<sub>2</sub>O<sub>3</sub> - 17.23 %</b>	<b>TiO<sub>2</sub> - 4.98 %</b>
R-217	Highly magnetic with approximately 60% mafics, coarsely crystalline gabbro.	<b>Fe<sub>2</sub>O<sub>3</sub> - 25.06 %</b>	<b>TiO<sub>2</sub> - 7.54 %</b>
R-218	Sample is magnetite rich gabbro, mafics approximately 60%.	<b>Fe<sub>2</sub>O<sub>3</sub> - 28.33 %</b>	<b>TiO<sub>2</sub> - 4.93 %</b>
R-219	Mafic rich foliated gabbro, mafics approximately 50%, strongly magnetic.	<b>Fe<sub>2</sub>O<sub>3</sub> - 29.31 %</b>	<b>TiO<sub>2</sub> - 6.87 %</b>
R-220	Highly weathered gabbro, mafics approximately 25%, weakly magnetic.	<b>Fe<sub>2</sub>O<sub>3</sub> - 14.37 %</b>	<b>TiO<sub>2</sub> - 6.87 %</b>
R-221	Coarsely crystalline gabbro, mafics approximately 40%, strongly magnetic.	<b>Fe<sub>2</sub>O<sub>3</sub> - 20.87 %</b>	<b>TiO<sub>2</sub> - 4.77 %</b>
R-222	Subcrop of coarse crystalline gabbro, magnetite approximately 20%, very strongly magnetic, mafics approximately 35%.	<b>Fe<sub>2</sub>O<sub>3</sub> - 33.40 %</b>	<b>TiO<sub>2</sub> - 9.95 %</b>
R-223	Highly shattered outcrop mafic rich foliated gabbro, coarsely crystalline, magnetic sample.	<b>Fe<sub>2</sub>O<sub>3</sub> - 17.85 %</b>	<b>TiO<sub>2</sub> - 3.94 %</b>
R-224	Highly magnetite bearing gabbro, magnetite approximately 20%, highly magnetic mafics approximately 50%.	<b>Fe<sub>2</sub>O<sub>3</sub> - 32.13 %</b>	<b>TiO<sub>2</sub> - 9.71 %</b>

- R-225 Gabbro mafics approximately 40%, high magnetite approximately 20%, highly magnetic.  
**Fe<sub>2</sub>O<sub>3</sub> - 27.84 %**                      **TiO<sub>2</sub> - 8.28 %**
- R-226 Coarse crystalline gabbro, magnetite approximately 10%, highly magnetic, mafics approximately 40%.  
**Fe<sub>2</sub>O<sub>3</sub> - 28.40 %**                      **TiO<sub>2</sub> - 8.37 %**
- R-227 Coarsely crystalline equigranular gabbro, minor biotite mafics approximately 5%, moderately magnetic.  
**Fe<sub>2</sub>O<sub>3</sub> - 15.83 %**                      **TiO<sub>2</sub> - 4.05 %**
- R-228 Outcrop is mafic rich gabbro, mafics approximately 60%, strongly magnetic.  
**Fe<sub>2</sub>O<sub>3</sub> - 18.02 %**                      **TiO<sub>2</sub> - 4.02 %**
- R-229 Mafic rich gabbro, coarsely crystalline, abundant pyrite, strongly magnetic.  
**Fe<sub>2</sub>O<sub>3</sub> - 20.88 %**                      **TiO<sub>2</sub> - 3.51 %**
- R-230 Very coarsely crystalline gabbro, mafics approximately 25%, minor biotite, magnetite approximately 10%, strongly magnetic equigranular.  
**Fe<sub>2</sub>O<sub>3</sub> - 22.38 %**                      **TiO<sub>2</sub> - 3.64 %**
- R-231 Gabbro coarse crystalline, mafics approximately 40%, strongly magnetic.  
**Fe<sub>2</sub>O<sub>3</sub> - 22.42 %**                      **TiO<sub>2</sub> - 4.71 %**
- R-232 Very coarse crystalline gabbro, minor biotite, mafics approximately 25%, coarse magnetic blebs approximately 7-10%, strongly magnetic.  
**Fe<sub>2</sub>O<sub>3</sub> - 20.52 %**                      **TiO<sub>2</sub> - 3.22 %**
- R-233 Rock is coarsely crystalline, equigranular gabbro, mafics approximately 25%, moderately magnetic.  
**Fe<sub>2</sub>O<sub>3</sub> - 14.23 %**                      **TiO<sub>2</sub> - 2.41 %**
- R-234 Sample is coarsely crystalline equigranular gabbro, mafics approximately 30%, minor pyrite, moderately magnetic.  
**Fe<sub>2</sub>O<sub>3</sub> - 10.60 %**                      **TiO<sub>2</sub> - 2.05 %**
- R-235 Sample is coarsely crystalline equigranular gabbro, mafics approximately 25%, moderately magnetic.  
**Fe<sub>2</sub>O<sub>3</sub> - 12.91 %**                      **TiO<sub>2</sub> - 1.90 %**
- R-236 Highly foliated crystalline gabbro, mafics approximately 50%, strongly magnetic.

	<b>Fe<sub>2</sub>O<sub>3</sub> - 24.52 %</b>	<b>TiO<sub>2</sub> - 5.89 %</b>
R-237	Highly foliated crystalline, gabbro mafics approximately 50% along crude banding, strongly magnetic.	
	<b>Fe<sub>2</sub>O<sub>3</sub> - 15.86 %</b>	<b>TiO<sub>2</sub> - 4.14 %</b>
R-238	Same as R-237.	
	<b>Fe<sub>2</sub>O<sub>3</sub> - 16.98 %</b>	<b>TiO<sub>2</sub> - 4.56 %</b>
R-239	Foliated mafic rich crystalline gabbro, mafics approximately 40-50%, minor magnetite, strongly magnetic.	
	<b>Fe<sub>2</sub>O<sub>3</sub> - 16.64 %</b>	<b>TiO<sub>2</sub> - 5.14 %</b>
R-240	Foliated with crude bands approximately 5 mm, mafics approximately 35%, moderately magnetic.	
	<b>Fe<sub>2</sub>O<sub>3</sub> - 17.93 %</b>	<b>TiO<sub>2</sub> - 4.03 %</b>
R-241	Weakly foliated crystalline gabbro, mafics approximately 30%, moderately magnetic.	
	<b>Fe<sub>2</sub>O<sub>3</sub> - 17.95 %</b>	<b>TiO<sub>2</sub> - 5.28 %</b>
R-242	Outcrop is light grey, foliated crystalline gabbro, mafics approximately 15%, weakly magnetic.	
	<b>Fe<sub>2</sub>O<sub>3</sub> - 8.38 %</b>	<b>TiO<sub>2</sub> - 1.59 %</b>
R-243	Outcrop is grey, coarsely crystalline equigranular gabbro, mafics approximately 25%, moderately magnetic.	
	<b>Fe<sub>2</sub>O<sub>3</sub> - 6.71 %</b>	<b>TiO<sub>2</sub> - 1.09 %</b>
R-244	Same as R-243, mafics approximately 20%.	
	<b>Fe<sub>2</sub>O<sub>3</sub> - 8.27 %</b>	<b>TiO<sub>2</sub> - 1.22 %</b>
R-245	Grey, coarse crystalline gabbro, equigranular, mafics approximately 15%, weakly magnetic.	
	<b>Fe<sub>2</sub>O<sub>3</sub> - 6.55 %</b>	<b>TiO<sub>2</sub> - 1.06 %</b>
R-246	Foliated, mafic rich crystalline gabbro, mafics approximately 40%, moderately magnetic.	
	<b>Fe<sub>2</sub>O<sub>3</sub> - 17.22 %</b>	<b>TiO<sub>2</sub> - 5.51 %</b>
R-247	Pale grey to grey, foliated crystalline gabbro, mafics approximately 25%, moderately magnetic.	
	<b>Fe<sub>2</sub>O<sub>3</sub> - 17.22 %</b>	<b>TiO<sub>2</sub> - 5.51 %</b>
R-248	Highly foliated mafic rich gabbro, strongly magnetic.	

	<b>Fe<sub>2</sub>O<sub>3</sub> - 16.72 %</b>	<b>TiO<sub>2</sub> - 3.12 %</b>
R-249	Grey, coarse crystalline, equigranular gabbro, moderately magnetic, mafics approximately 30%.	
	<b>Fe<sub>2</sub>O<sub>3</sub> - 7.47 %</b>	<b>TiO<sub>2</sub> - 1.14 %</b>
R-250	Highly foliated, mafic rich with mafics approximately 50%, strongly magnetic.	
	<b>Fe<sub>2</sub>O<sub>3</sub> - 19.87 %</b>	<b>TiO<sub>2</sub> - 5.21 %</b>
R-251	Coarse crystalline gabbro, moderately magnetic, mafics approximately 30-40%.	
	<b>Fe<sub>2</sub>O<sub>3</sub> - 11.53 %</b>	<b>TiO<sub>2</sub> - 1.53 %</b>

**Appendix II**  
**Analyses for the Geochemical Program**



# Loring Laboratories Ltd.

629 Beaverdam Road N.E.,  
Calgary Alberta T2K 4W7  
Tel: 274-2777 Fax: 275-0541



Client: 6 BT RESOURCE CO., LTD  
Suite 200, 5920 McLeod Trail S.W.,  
Calgary, Alberta  
T2H 0K2

FILE: 41275

DATE: July 22, 1999

Analyst: Sudhir Jain

## WHOLE ROCK ANALYSIS BY ICP

Sample No.	Al <sub>2</sub> O <sub>3</sub>	Ba	CaO	Cr	Fe <sub>2</sub> O <sub>3</sub>	K <sub>2</sub> O	MgO	MnO	Na <sub>2</sub> O	Ni	P <sub>2</sub> O <sub>5</sub>	SO <sub>3</sub>	SiO <sub>2</sub>	Sr	TiO <sub>2</sub>	V <sub>2</sub> O <sub>5</sub>	LOI	SUM
%	ppm	%	ppm	%	%	%	%	%	%	ppm	%	%	%	ppm	%	%	%	%
-223	15.52	146	11.99	<1	17.85	0.42	5.21	0.16	1.90	23	0.132	0.17	38.08	643	3.94	0.17	3.08	98.82
-224	6.54	132	10.42	<1	32.13	0.06	10.01	0.26	0.97	30	1.012	0.15	26.51	292	9.71	0.36	<0.01	98.13
-225	8.21	124	11.98	7	27.84	0.09	8.06	0.20	1.28	34	0.573	0.17	32.73	401	8.28	0.32	<0.01	99.70
-226	6.57	162	11.44	<1	28.40	0.16	9.09	0.26	1.18	24	2.475	0.17	30.80	472	8.37	0.21	<0.01	99.11
-227	17.99	309	13.20	27	15.83	0.39	4.96	0.15	2.77	20	2.179	0.20	36.75	1159	4.05	0.12	0.22	98.80
-228	12.90	187	13.04	165	18.02	0.14	7.93	0.18	1.98	44	0.964	0.19	36.92	782	4.02	0.09	2.87	99.25
-229	12.57	70	14.80	161	20.88	0.08	7.07	0.18	1.40	70	0.121	0.41	38.28	564	3.51	0.13	0.41	99.84
-230	12.31	186	13.82	11	22.38	0.23	6.61	0.17	1.30	38	0.177	0.24	37.29	480	3.64	0.30	0.84	99.30
-231	9.79	74	16.54	25	22.42	0.09	6.38	0.18	1.41	24	2.210	0.28	32.98	614	4.71	0.20	0.92	98.09
-232	13.22	183	14.24	58	20.52	0.28	6.09	0.16	1.44	33	0.165	0.27	37.88	508	3.22	0.23	1.22	98.92
-233	17.64	502	13.94	125	14.23	0.78	5.34	0.15	2.13	72	0.359	0.24	40.50	890	2.41	0.08	1.44	99.24
-234	12.03	258	18.55	36	10.60	0.47	6.58	0.18	2.34	15	2.810	0.28	42.42	842	2.05	0.05	0.77	99.08
-235	17.13	228	14.18	101	12.91	0.27	6.12	0.13	2.53	56	0.072	0.21	42.59	700	1.90	0.09	0.75	98.88
-236	11.61	121	10.42	37	24.52	0.24	6.46	0.28	2.77	24	2.346	0.14	34.69	732	5.89	0.12	<0.01	99.49
-237	16.13	1172	12.54	41	15.86	0.25	4.91	0.16	3.41	18	0.613	0.18	39.79	910	4.14	0.08	0.14	98.17
-238	14.52	1382	11.38	41	16.98	0.25	4.87	0.17	3.09	16	2.014	0.16	39.76	983	4.65	0.04	<0.01	97.89
-239	16.39	317	12.20	56	16.64	0.16	5.00	0.15	2.81	16	0.238	0.17	40.10	846	5.14	0.11	0.41	99.51
-240	15.54	209	12.85	28	17.93	0.16	5.45	0.14	2.09	24	0.104	0.18	40.70	740	4.03	0.18	0.46	99.61
-241	15.45	219	11.84	45	17.95	0.16	5.39	0.15	2.30	18	0.089	0.16	40.20	852	5.28	0.15	<0.01	99.13
-242	24.85	225	14.48	45	8.38	0.18	2.54	0.07	2.51	28	0.154	0.19	43.06	1124	1.59	0.06	0.72	98.77
-243	25.82	250	14.87	99	6.71	0.37	2.78	0.07	2.29	29	0.154	0.19	43.44	1001	1.09	0.02	0.92	98.72
-244	22.15	206	15.59	192	8.27	0.26	4.38	0.10	2.18	63	0.169	0.20	43.73	841	1.22	0.00	0.48	98.73
-245	28.36	262	13.98	67	6.55	0.26	1.68	0.06	2.82	12	0.125	0.18	46.24	1274	1.06	0.03	0.36	99.69
-246	16.18	144	12.41	28	17.22	0.15	5.62	0.14	2.19	20	0.058	0.18	37.19	825	5.51	0.20	0.34	97.38
-247	17.91	246	12.47	60	14.28	0.28	5.48	0.12	2.22	52	0.080	0.19	41.21	917	2.63	0.14	1.67	98.69
-248	17.33	154	13.66	11	16.72	0.14	5.99	0.14	2.09	50	0.054	0.21	39.19	893	3.12	0.19	<0.01	98.82
-249	24.88	255	15.20	77	7.47	0.22	2.56	0.07	2.34	51	0.157	0.23	43.75	1013	1.14	0.04	0.68	98.75
-250	14.58	245	12.27	22	19.87	0.19	5.88	0.16	2.00	23	0.118	0.16	38.05	709	5.21	0.15	<0.01	98.63
-251	21.71	87	16.88	58	11.53	0.11	3.40	0.07	1.86	84	0.045	0.20	39.91	976	1.53	0.10	2.17	99.51
-226R	6.42	182	11.52	18	28.98	0.15	8.88	0.25	1.17	20	2.380	0.16	30.98	448	8.14	0.18	<0.01	99.23

0.2g. of sample fused with lithium metaborate and dissolved in 5% HNO<sub>3</sub>.

Certified by: 



# Loring Laboratories Ltd.

629 Beaverdam Road N.E.,  
Calgary Alberta T2K 4W7  
Tel: 274-2777 Fax: 275-0541



: 26 BT RESOURCE CO., LTD  
Suite 200, 5920 McLeod Trail S.W.,  
Calgary, Alberta  
T2H 0K2

FILE: 41275

DATE: July 22, 1999

Attn: Sudhir Jain

## WHOLE ROCK ANALYSIS BY ICP

Sample No.	Al <sub>2</sub> O <sub>3</sub> %	Ba ppm	CaO %	Cr ppm	Fe <sub>2</sub> O <sub>3</sub> %	K <sub>2</sub> O %	MgO %	MnO %	Na <sub>2</sub> O %	Ni ppm	P <sub>2</sub> O <sub>5</sub> %	SO <sub>3</sub> %	SiO <sub>2</sub> %	Sr ppm	TiO <sub>2</sub> %	V <sub>2</sub> O <sub>5</sub> %	LOI %	SUM %
R-107	19.10	197	3.95	22	6.26	4.94	0.55	0.22	5.02	17	0.101	1.39	55.56	298	0.29	<0.01	2.20	99.58
R-189	15.15	208	12.74	57	17.68	0.16	6.35	0.18	2.60	28	0.483	0.17	38.26	1001	5.88	0.12	0.15	99.73
R-190	7.03	454	13.60	61	25.74	0.08	7.58	0.25	1.04	38	1.062	0.56	34.75	311	7.47	0.17	<0.01	99.33
R-191	10.84	764	12.94	73	21.17	0.30	6.95	0.19	1.80	43	0.840	0.20	36.58	522	6.76	0.18	0.62	99.37
R-192	3.64	118	10.74	20	36.16	0.06	10.74	0.60	0.70	38	3.502	0.82	24.09	217	8.46	0.08	0.37	99.97
R-193	13.97	188	13.48	71	17.98	0.15	6.53	0.16	2.12	54	2.847	0.17	35.52	912	5.78	0.11	0.75	99.57
R-194	15.48	255	11.98	57	17.87	0.14	5.99	0.15	3.51	26	0.092	1.57	36.03	960	5.75	0.15	0.37	99.06
R-195	18.80	361	13.65	63	14.75	0.23	4.29	0.12	2.67	42	0.542	0.22	40.42	862	3.31	0.11	0.54	99.65
R-196	12.95	464	13.05	71	19.92	0.17	5.87	0.18	2.06	45	0.524	0.18	37.88	682	6.05	0.15	0.53	99.62
R-197	10.39	305	12.42	34	21.94	0.23	6.07	0.25	2.10	62	2.319	0.92	36.97	818	5.26	0.12	<0.01	98.99
R-198	10.98	571	10.21	2	20.58	0.51	4.86	0.32	2.81	27	2.202	0.45	38.46	665	4.36	0.02	1.45	97.21
R-199	11.77	257	20.82	314	8.33	0.72	7.10	0.15	1.08	95	1.385	0.31	41.58	341	1.94	<0.01	1.71	98.91
R-200	14.22	169	12.81	61	9.94	1.32	5.33	0.14	2.56	40	0.259	1.10	45.01	814	3.20	0.05	1.68	97.60
R-201	15.58	428	12.62	49	14.51	0.63	5.29	0.15	2.20	30	0.354	0.23	41.49	1225	5.09	0.08	0.24	98.47
R-202	13.98	331	12.89	63	16.90	0.68	5.72	0.17	1.90	27	2.139	0.26	39.62	1062	4.28	0.07	0.36	98.97
R-203	7.97	195	16.87	554	13.84	0.29	8.13	0.18	1.72	252	1.500	1.86	43.69	330	1.79	<0.01	1.81	99.65
R-204	13.38	705	12.29	24	17.46	1.92	5.46	0.18	2.72	30	2.190	0.21	37.74	996	4.84	0.10	1.00	99.49
R-205	13.38	370	15.38	69	14.65	1.43	4.43	0.19	2.08	60	1.398	0.16	39.03	958	5.86	0.04	1.63	99.67
R-206	9.73	82	13.54	51	25.75	0.12	6.90	0.25	1.38	31	0.443	0.20	35.09	400	4.71	0.33	0.34	98.79
R-207	18.08	147	13.97	75	15.57	0.16	5.25	0.11	2.14	95	0.373	0.18	39.72	823	2.73	0.16	0.39	98.83
R-208	10.88	98	14.20	24	19.41	0.10	6.04	0.16	1.59	29	2.893	0.22	35.29	604	5.99	0.17	0.50	97.45
R-209	15.84	518	13.36	22	15.02	0.17	4.77	0.12	2.48	21	2.390	0.18	38.63	1015	4.32	0.11	0.12	97.50
R-210	20.45	108	15.11	69	12.34	0.29	4.10	0.14	2.30	58	0.488	0.24	41.06	789	2.34	0.08	0.50	99.43
R-211	21.08	453	13.42	48	10.99	0.39	3.37	0.12	3.28	20	0.610	0.18	43.13	1117	2.24	0.06	0.51	99.38
R-212	9.42	307	12.55	3	22.45	0.12	7.18	0.21	1.64	31	3.052	0.17	33.79	662	6.40	0.17	<0.01	97.15
R-213	11.36	170	12.86	11	22.75	0.10	7.55	0.17	1.86	47	0.871	0.21	33.68	555	7.23	0.23	0.06	98.93
R-214	11.61	149	12.75	38	25.83	0.09	6.95	0.18	1.52	51	0.276	0.24	34.10	450	5.36	0.33	0.05	99.29
R-107R	20.50	480	2.81	2	4.82	5.47	0.55	0.15	4.91	15	0.087	0.06	57.21	306	0.27	<0.01	2.12	98.95
R-215	9.37	124	13.48	58	22.52	0.10	7.86	0.19	1.40	111	0.333	0.26	38.64	377	6.74	0.30	<0.01	99.26
R-215	14.13	275	12.98	27	17.23	0.16	6.10	0.15	2.22	33	2.622	0.19	36.96	814	4.98	0.15	0.08	97.95
R-217	7.21	124	12.87	16	25.08	0.06	9.29	0.21	1.10	26	3.524	0.39	29.74	439	7.54	0.24	<0.01	97.23
R-218	10.14	120	12.53	25	28.33	0.15	7.51	0.22	1.38	41	0.256	0.24	31.80	420	4.93	0.33	<0.01	97.82
R-219	7.91	115	11.93	4	29.31	0.22	8.30	0.23	1.22	35	0.215	0.16	31.13	286	6.87	0.37	0.10	97.96
R-220	18.48	260	13.40	25	14.37	0.22	4.26	0.12	2.66	20	0.182	0.18	39.92	843	4.01	0.13	0.39	98.32
R-221	14.70	187	12.66	13	20.87	0.17	5.84	0.15	2.05	37	0.458	0.20	35.93	653	4.77	0.23	0.14	98.16
R-222	4.43	91	11.83	<1	33.40	0.07	11.33	0.25	0.67	33	3.751	0.21	22.34	244	9.95	0.32	<0.01	98.56

**Appendix III**

**Drill Log DDH 95-2**

## DDH-95-2 - Drill Log

- 0-3.05m -Overburden
- 3.05-27.6m -Gabbro, coarse grained, light grey gabbro with approximately 30% mafics, predominantly biotite, local weak alteration to chlorite, weakly magnetic, foliated approximately 75 deg. to C.A., magnetic as coarse grains approximately 2-5%, local coarse euhedral trimmed plagioclase approximately 5 mm. Rusty fractures @ 45 deg. to C.A.
- @ approximately 13.7m, foliation is coarse biotite approximately 2-3 mm in aligned crystals - parallel to C.A. Local traces of pyrite at 45 deg. increase of biotite to approximately 40% of rock.
- 27.6-54.4m -Gabbro - light grey, fine to medium grained equigranular, mafics approximately 50%, more strongly magnetic fractures, 60 deg. to C.A. Mafics are biotite plus pyroxene, mixed zone.
- @ 38.7m down hole - local coarse grained sections up to 6 cm wide - strongly magnetic at 38.7m down. Mixed zone, varies from coarse grained to medium grained equigranular.
- @49.7-50.3m, sheared, rusty gabbro - shearing @ 45 deg. to C.A.
- Local 2-4 cm blue grey plagioclase rich section - crystals up to 1 cm coarser-grained sections.
- 54.4-61.3m -Gabbro/anorthosite mafics approximately 20%, minor magnetite blebs, weakly foliated @ 45 deg. to C.A. Coarse grained - mafics predominantly biotite with lesser pyroxene.
- @56m, 1 cm semi-massive magnetite with minor pyrite veinlet.
- appears to be dyke with 0.6m of anorthosite in middle with inclusions of gabbro along walls.
- 61.3-62.3m -Gabbro - mafic rich with mafics approximately 50%. Highly magnetic coarse bleb magnetite.
- 62.3-62.7m -Very coarse grained minor pyrrhotite, anorthosite dyke.
- 62.7-66.5m -Fine to coarse grained gabbro, highly magnetic with coarse magnetite and up to 5% pyrrhotite locally, mafics approximately 70% of rock. Mafics highly altered to chlorite.

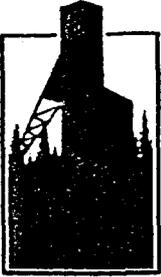
66.5-71.5m -Gabbro - very coarse grained mafics approximately 50%  
moderately magnetic with blebs of magnetite approximately  
5%. Mafics (biotite, pyroxene altered to chlorite).

71.5-72.6m -Anorthosite, pale grey, coarse grained, mafics approximately 15%.

72.6-91.5m -Gabbro - same as from 218-234.5', 66.5-71.5m  
75.9m  
-@ 249.1, local pyrrhotite approximately 5% - strongly magnetic.  
Mafics approximately 40-50%.

91.5m-E.O.H.

**Appendix IV**  
**Mineralogical Studies**



## OVERBURDEN DRILLING MANAGEMENT LIMITED

May 21, 1999

Mr. Ed Kruchkowski  
c/o AURORA CORROSION CONTROL  
3773 - 19th Street N.E.  
Calgary, Alberta T2E 6S8

fax: (403) 250-5872

Dear Mr. Kruchkowski:

Re: Resolution of Ti Mineralogy, British Columbia Titanium-Phosphate Project,  
26BT Resource Development Company Ltd.

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As proposed in my May 13 letter and agreed in our May 19 telephone discussions, we have performed a brief scanning electron microscope (SEM) visual and energy dispersive x-ray (EDS) analytical investigation on 26BT's gabbro samples to resolve reported differences between: 1) the Ti mineral species recovered in our heavy mineral processing of the mineralized drill core and those observed in other thin section studies; and 2)  $Fe_2O_3$ ,  $TiO_2$  and  $P_2O_5$  whole rock analyses and the quantity of  $Fe_2O_3$ ,  $TiO_2$  and  $P_2O_5$  recovered in our heavy mineral concentrates. These questions are outlined in Sudhir's May 14 letter, a copy of which is attached. Sudhir's questions relate specifically to Hole 94-4. We performed our tests on samples from Hole 95-2 because these samples were already mounted and polished ready for SEM analysis. However, the SEM results for all holes would be expected to be very similar as our heavy mineral processing results are very consistent between holes.

We used crusher rejects from four 10-foot sample intervals in our test work -- 30-40, 50-60, 130-140 and 140-150 feet. The reject material, consisting of 1-5 mm rock fragments, was cast in epoxy pucks, one side of which was ground and polished to a mirror finish suitable for SEM photography and EDS analysis. A brief SEM examination showed similar mineralogy in all four samples; therefore a single sample (130-140 foot interval) was photographed (Plate 1) and analyzed (Fig. 1) in detail.

SEM photography relies on density contrasts to highlight different mineral species. In 26BT's samples, Fe and Ti oxides are nearly white, marginally heavy apatite, pyroxene and biotite are medium grey and low-density plagioclase is dark grey (Plate 1). By volume, the subject gabbro consists of 50-60 percent plagioclase, 30-35 percent augite, 3-5 percent biotite, 10 percent Fe and Ti oxides and 1-2 percent apatite (Plates 1a to 1c).

**Mines  
Are  
Where WE  
Find Them.**

/... p.2

The Ti-bearing minerals (Table 1) are titanomagnetite, ilmenite, biotite and augite. Rutile is absent, even at micron scale, corroborating our earlier heavy mineral processing results where none was found. Titanomagnetite is on average ten times more abundant than ilmenite (Plates 1a, b) although in local patches the two minerals occur in subequal concentrations (Plate 1c). Both minerals occur in close association with the ferromagnesian silicate minerals (augite and biotite; Plates 1a to 1c), not with plagioclase. The titanomagnetite contains approximately 15 percent  $TiO_2$  in solid solution (Fig. 1a) whereas the ilmenite contains 55 percent (Fig. 1b). In some grains, part of the  $TiO_2$  has exsolved from the magnetite, forming thin (maximum 0.02 mm) parallel ilmenite lamellae (Plate 1d) and lowering the  $TiO_2$  content of the inter-lamellae titanomagnetite to 10 percent (Fig. 1c). The ilmenite contributes only 28 percent of the  $TiO_2$  in the gabbro compared to 57 percent from the titanomagnetite due to the much greater abundance of titanomagnetite (Table 1). The balance is contributed by the augite which contains 1 percent  $TiO_2$  (Fig. 1d) and biotite which contains 5 percent  $TiO_2$  (Fig. 1e).

Much of the gap between the  $Fe_2O_3$  content of the Fe-Ti oxide minerals in our concentrates and the 8-16 percent  $Fe_2O_3$  whole rock values (Table 2) is explained by the abundant augite and biotite which together would be expected to contribute about 6-8 percent  $Fe_2O_3$ . The  $Fe_2O_3$  gap narrows in relation to total  $Fe_2O_3$  as the titanomagnetite content of the rock increases. The remaining gap is explained by the very fine grain size of part of the titanomagnetite and ilmenite; 20-30 percent by volume is silt-sized ( $<0.1$  mm; Plate 1a), well below the 0.18-0.25 mm grain size used in our recovery tests which were intended to simulate recoveries achievable in an actual mining and milling operation. The larger, recoverable titanomagnetite and ilmenite grains are in the 0.2 to 0.4 mm range (Plates 1a to 1c) which is rather small compared to the grain size of productive deposits in anorthosites. Moreover, rather than having sharp, mill-friendly boundaries, much of the titanomagnetite is shrouded in biotite (Plates 1b, d).

The apatite occurs as isolated crystals, mainly in association with plagioclase (Plates 1b, c, d). Most grains are much smaller than the 0.18 mm cut-off used in our processing tests; this explains the missing  $P_2O_5$  mentioned by Sudhir.

An interesting feature of the gabbro is the presence of barian feldspar (hyalophane) lamellae in the plagioclase (Plates 1b, d, f; Figs. 1f, g). This explains the high Ba content (0.5-1.5 percent; Table 2) of the gabbro and the absence of barite in our heavy mineral concentrates.

Page 3

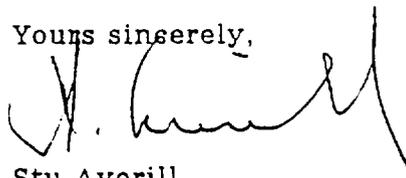
Mr. Kruchkowski

In summary, our SEM study has fully corroborated our earlier and ongoing heavy mineral processing results and has revealed additional details on the mineralogy of the gabbro. Sudhir mentioned that I appeared to be very negative about the project. It would not be appropriate for me to form an opinion on the project itself as many factors influence the viability of a titanium operation and the only factor I have considered is the mineralogy. However, I would have been remiss in my responsibilities if I had not reported from the outset, as I did on December 10, 1998, the apparent milling/metallurgical problems of the mineralization. Our SEM study has confirmed these problems and identified others. The problems are:

1. Rutile, the most valuable Ti ore mineral, is absent.
2. Approximately 60 percent of the  $TiO_2$  value resides in solid solution form in titanomagnetite, requiring chemical extraction.
3. Although significant ilmenite is present, part of it occurs as thin exsolution lamellae rather than discrete grains and would be difficult to separate from the titanomagnetite by milling.
4. Much of the titanomagnetite is shrouded in biotite which would be difficult to separate by milling and therefore dilute the titanomagnetite concentrate.
5. Approximately 20-30 percent by volume of the titanomagnetite and ilmenite occurs in grains too small to be free-milling.
6. Most of the byproduct apatite is too fine-grained to be free-milling.

The milling/metallurgical problems appear to be common to the mineralization in all four drill holes that we have tested and therefore may extend throughout the gabbro intrusive. Possibly some or all of the problems could be overcome in a deposit of sufficient grade but the mineralization encountered to date is of modest grade. I hope our test results are useful for resolving the future direction of the project.

Yours sincerely,



Stu Averill,  
President

cc Sudhir Jain

Plate 1 - SEM Photos of Representative Fragments of Crushed Gabbro from the 130-140 Foot Interval, Hole 95-2. Brightness of minerals increases with density. Scale bar is 0.1 or 0.01 mm (100 or 10 microns) as indicated.

Plate 1a - Overview of 15 fragments showing an average composition of 50-60 percent plagioclase (pl; dark grey), 30-40 percent augite + biotite + apatite (aug + bt + ap; medium grey) and 10 percent titanomagnetite ± ilmenite (tm, ilm; grey-white). Note that the titanomagnetite and ilmenite grains are closely associated with augite and biotite and that 20-30 percent (by volume) of the grains are silt-sized inclusions (<0.1 mm) which would not readily be liberated by milling.

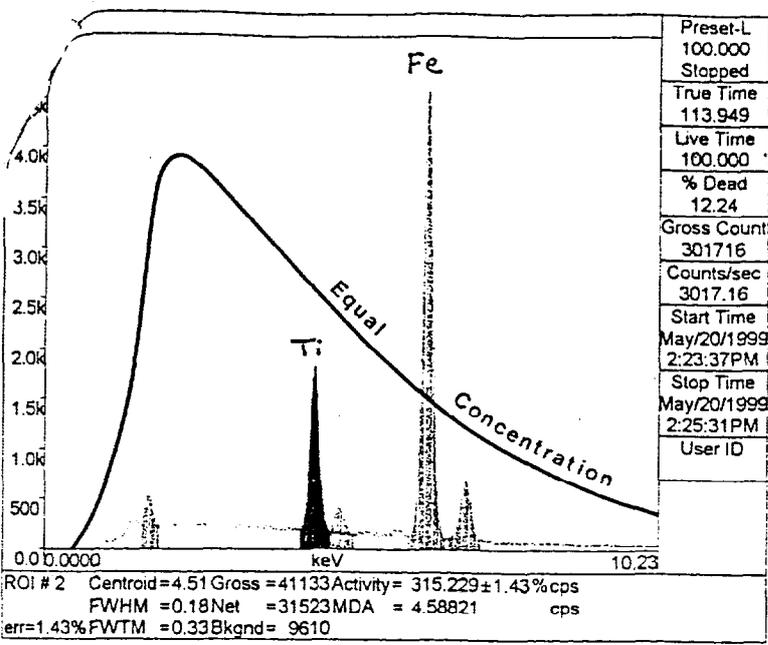
Plate 1b - Typical section showing a 10:1 ratio of titanomagnetite (tm; white) to ilmenite (im; very pale grey) and 1-2 percent apatite occurring as silt-sized inclusions (<0.1 mm) in plagioclase (pl; dark grey). Note: 1) the perthitic texture of some of the plagioclase, 2) the shrouding of the titanomagnetite by biotite (bt) which has the same medium grey tone as the augite (aug), and 3) the presence of ilmenite as thin exsolution lamellae in one titanomagnetite grain. The titanomagnetite contains approximately 15 percent TiO<sub>2</sub>, the biotite contains 5 percent and the augite 1 percent.

Plate 1c - Atypical section with an unusually low 1:1 ratio of titanomagnetite (tm; white) to ilmenite (im; very pale grey). Both oxides are closely associated with augite and biotite (aug, bt; both medium grey). Apatite (ap; pale grey crystals) is more closely associated with plagioclase (pl; dark grey), comprises 1-2 percent of the gabbro, and occurs mainly as silt-sized (<0.1 mm) inclusions which would not be liberated by milling.

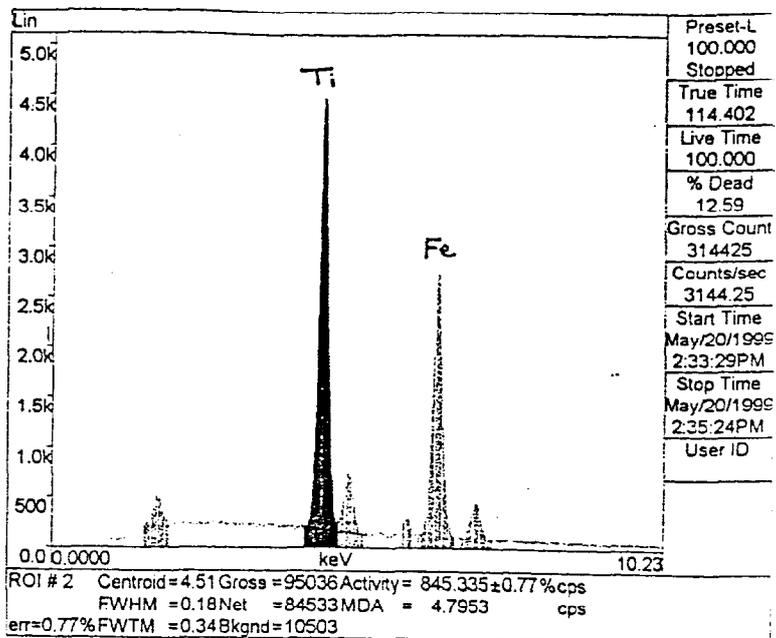
Plate 1d - Detail of the lamellar titanomagnetite-ilmenite grain of Plate 1b showing thin (0.005-0.02 mm) ilmenite (ilm; pale grey) exsolution lamellae in the titanomagnetite (tm; grey-white) which contains less (10 percent versus 15 percent) TiO<sub>2</sub> than unexsolved titanomagnetite. The grain is shrouded by biotite (bt; medium grey). Note the slightly perthitic texture of the plagioclase (pl; dark grey) and the presence of 2 percent apatite (ap; medium grey crystals) as silt-sized inclusions (<0.1 mm) in both the plagioclase and titanomagnetite.

Plate 1e - Extreme detail of a titanomagnetite grain (tm; grey-white) showing hints of submicroscopic (<0.001 mm), irregularly oriented ilmenite (ilm; pale grey) exsolution lamellae. The dark grey dendritic inclusions appear to be calcite (cal).

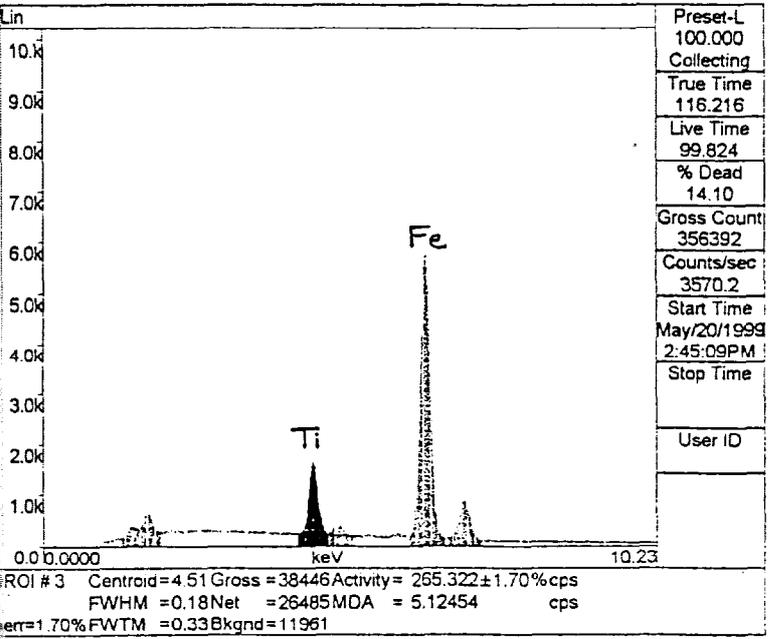
Plate 1f - Detail of a perthitic plagioclase grain showing pale grey hyalophane ((K,Ba)Al(Si,Al)<sub>3</sub>O<sub>8</sub>) lamellae in dark grey andesine ((Na,Ca)Al<sub>1-2</sub>Si<sub>2-3</sub>O<sub>8</sub>).



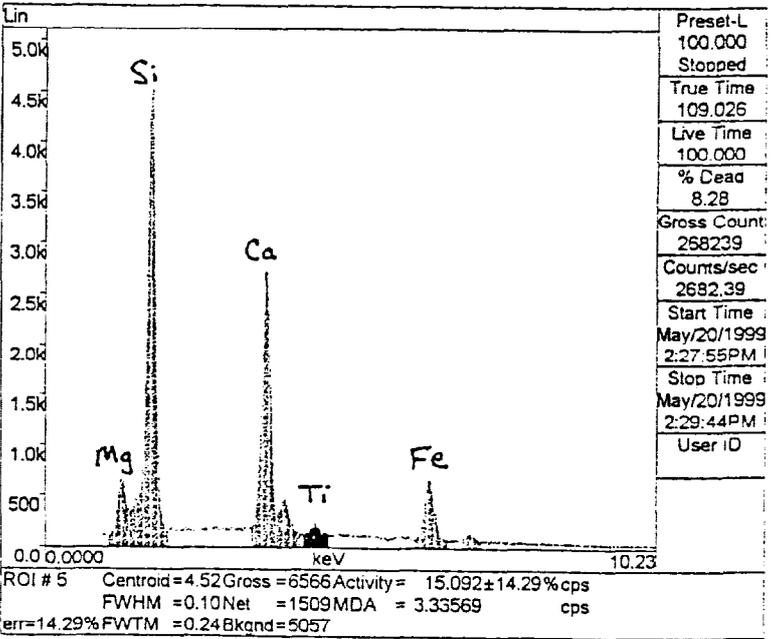
1a - Unexsolved titanomagnetite. TiO<sub>2</sub> content is approximately 15 percent.



1b - Ilmenite. TiO<sub>2</sub> content is approximately 55 percent.

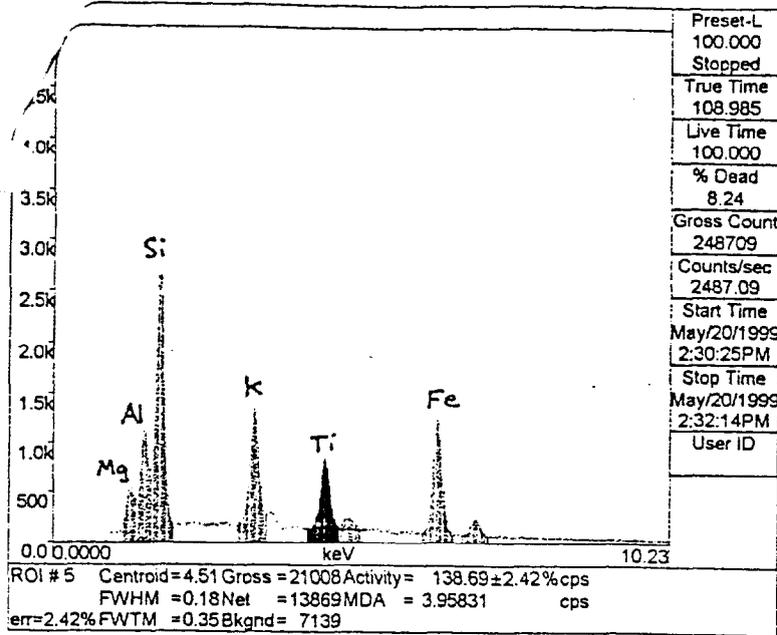


1c - Exsolved titanomagnetite. TiO<sub>2</sub> content is approximately 10 percent.

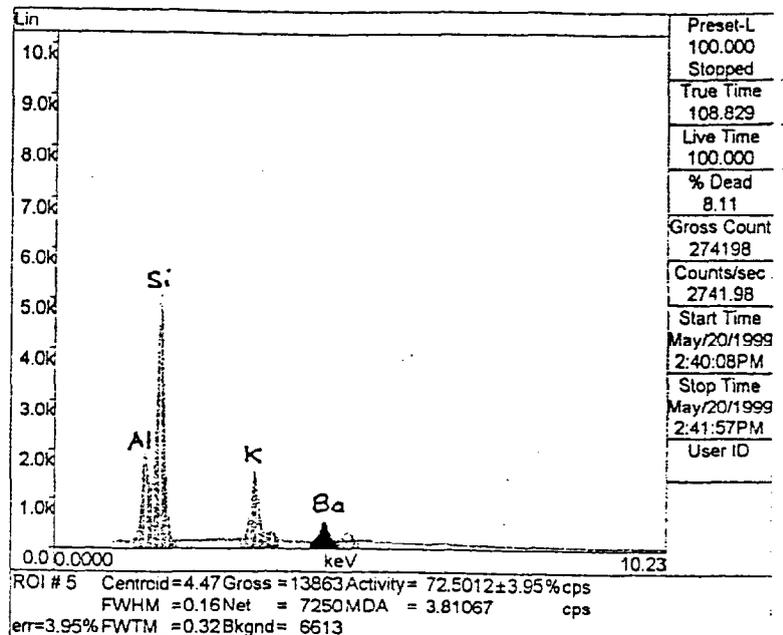


1d - Augite. TiO<sub>2</sub> content is approximately 1 percent.

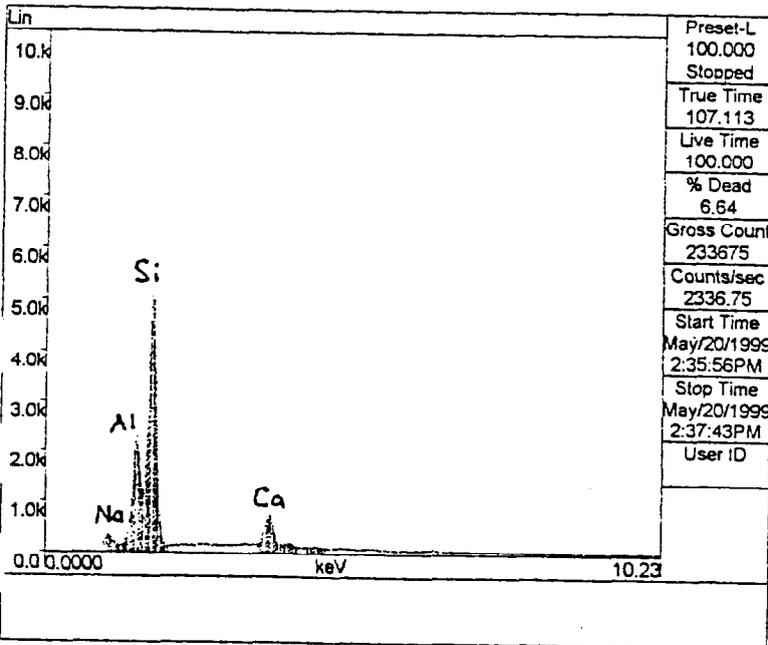
Figure 1 - EDS Analytical Spectra for Representative Mineral Grains in Gabbro from 130-140 Foot Interval, Hole 95-2. Peak heights for the same concentrations of different elements in any spectrum analyzed at the same magnification vary according to the bell curve line of Figure 1a. Peak heights for different spectra vary due to the different magnifications of analysis and the scale of the chart (5,000 versus 10,000 counts). Primary peaks for Fe and Ti are flanked by an unlabeled smaller secondary peak. Page 1 of 2.



1e - Blotite. TiO<sub>2</sub> content is approximately 5 percent.



1f - Hyalophane intergrowth in plagioclase. Ba content is approximately 5 percent.



1g - Plagioclase. Na:Ca ratio indicates an andesine composition.

Figure 1 - EDS Analytical Spectra for Representative Mineral Grains in Gabbro from 130-140 Foot Interval, Hole 95-2. Peak heights for the same concentrations of different elements in any spectrum analyzed at the same magnification vary according to the bell curve line of Figure 1a. Peak heights for different spectra vary due to the different magnifications of analysis and the scale of the chart (5,000 versus 10,000 counts). Primary peaks for Fe and Ti are flanked by an unlabeled smaller secondary peak. Page 2 of 2.

Mineral	% of Gabbro		Weight % TiO <sub>2</sub>	TiO <sub>2</sub> Contribution to Gabbro	
	Volume	Weight		Wt%	Proportion (%)
Plagioclase	50-60	45	0	0	0
Augite	30-35	30-35	1	0.3	9
Biotite	3-5	3-5	5	0.2	6
Titanomagnetite	8-10	13-15	15	2	57
Ilmenite*	1-2	2	55	1	28
Apatite	1-2	1-2	0	0	0
				3.5	100

\*Includes ilmenite exsolution lamellae in titanomagnetite.

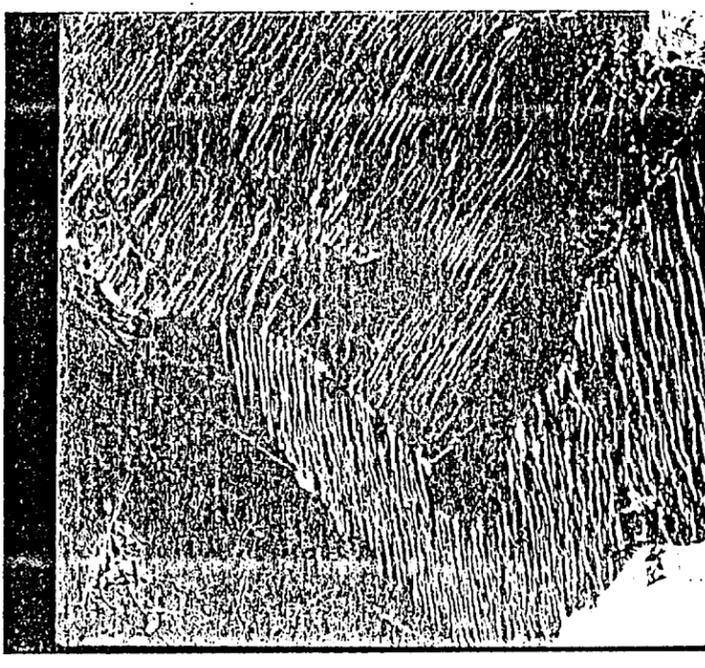
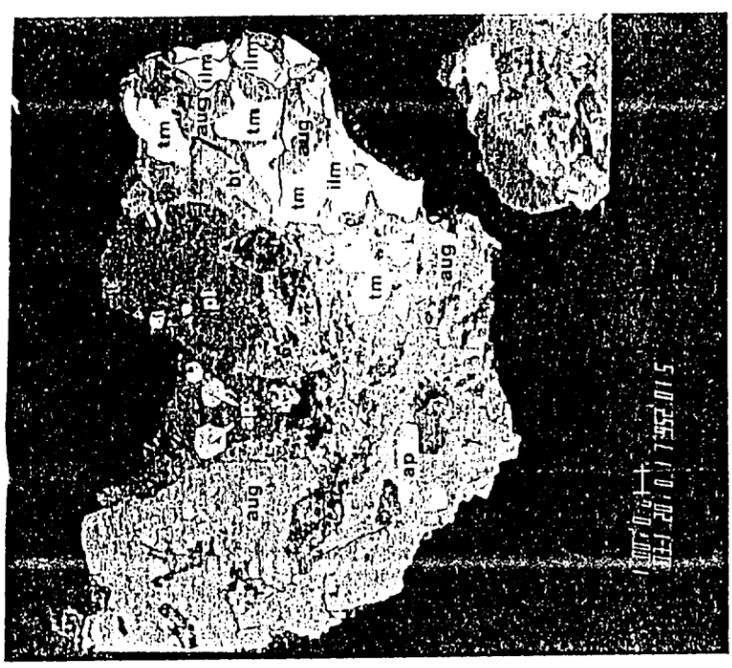
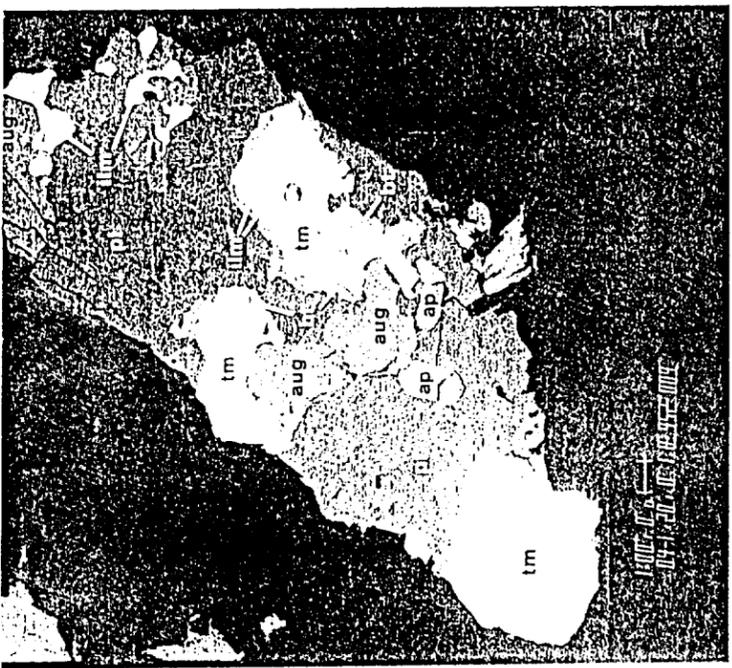
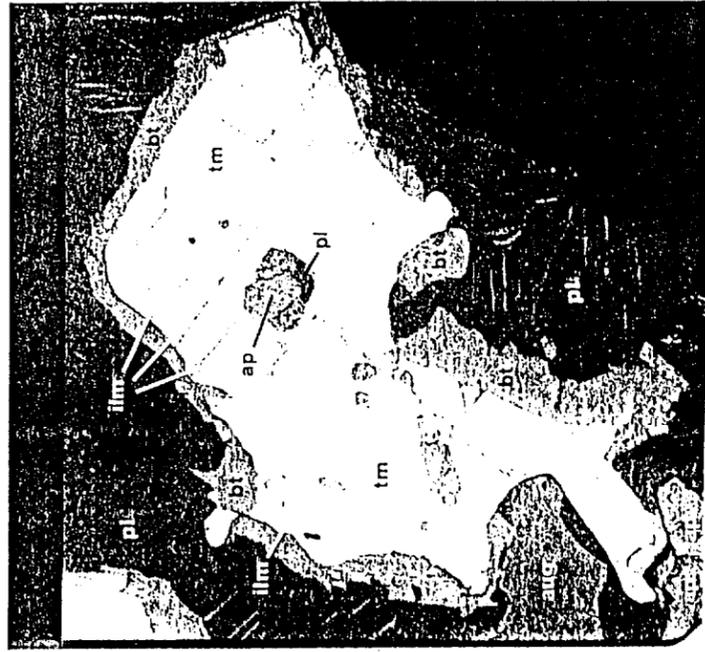
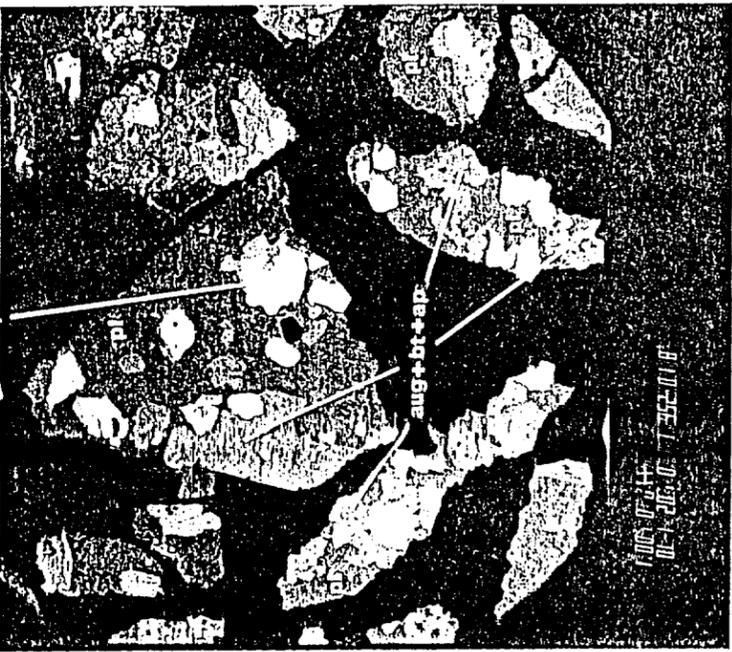
Table 1 - Mineralogy of Gabbro Illustrating Mineralogical Distribution of TiO<sub>2</sub>.

CLIENT: OVERBURDEN DRILLING MGMT LTD  
REPORT: C99-60250.1 ( COMPLETE )

DATE RECEIVED: 10-FEB-99 DATE PRINTED: 2-MAR-99 PAGE 1 OF 3 PROJECT: NONE

SAMPLE NUMBER	ELEMENT UNITS	SiO2 PCT	TiO2 PCT	Al2O3 PCT	Fe2O3* PCT	MnO PCT	MgO PCT	CaO PCT	Na2O PCT	K2O PCT	P2O5 PCT	LOI PCT	Total PCT	Ba PPM	Cr PPM	Sr PPM
95-2-10-20		50.93	2.83	16.92	9.17	0.14	2.99	5.32	4.55	2.97	1.09	0.79	99.95	>10000	76	1220
95-2-20-30		51.40	2.76	17.44	8.46	0.11	2.62	4.54	4.75	2.61	1.18	1.22	99.34	>10000	52	887
95-2-30-40		51.42	2.64	17.94	8.31	0.13	2.92	5.52	4.69	2.62	1.14	0.54	100.35	>10000	52	1043
95-2-40-50		51.39	2.58	17.89	8.01	0.13	2.81	5.55	4.77	2.53	1.10	0.49	99.66	>10000	60	1197
95-2-50-60		50.54	2.89	16.66	9.33	0.15	3.16	6.24	4.72	2.30	1.21	0.69	100.04	>10000	53	1106
95-2-60-70		50.15	3.03	16.06	9.92	0.16	3.37	6.30	4.54	2.41	1.31	0.59	100.19	>10000	51	1048
95-2-70-80		50.10	2.94	16.31	9.35	0.16	3.17	6.21	4.80	2.44	1.26	0.54	99.64	>10000	39	1055
95-2-80-90		49.47	3.34	16.17	11.21	0.20	3.30	6.80	4.62	1.90	1.27	0.44	100.40	>10000	50	1049
95-2-90-100		44.94	3.75	13.14	15.14	0.27	4.94	10.36	3.48	0.90	1.29	0.44	99.17	4590	41	700
95-2-100-110		43.93	3.90	12.48	16.07	0.28	4.80	10.07	3.28	0.83	0.91	0.60	97.68	4590	45	657
95-2-110-120		46.44	3.80	12.63	15.37	0.28	4.93	10.18	3.67	0.98	0.97	0.25	99.97	3955	39	569
95-2-120-130		46.57	3.49	12.08	15.04	0.29	4.97	9.88	3.81	1.10	1.03	1.03	99.83	4655	38	573
95-2-130-140		45.89	3.67	11.96	16.22	0.30	4.91	9.85	3.65	1.03	1.08	1.27	100.36	4580	35	603
95-2-140-150		47.10	3.37	12.93	15.09	0.28	4.68	9.40	3.91	1.36	0.82	0.59	100.14	5448	47	629
95-2-150-160		46.62	3.20	13.48	14.13	0.26	4.74	9.86	3.85	1.22	0.80	0.93	99.69	5183	52	683
95-2-160-170		46.63	3.13	11.98	15.40	0.32	4.80	10.29	3.68	1.22	0.91	0.69	99.62	5135	57	575
95-2-170-180		47.63	3.06	12.39	15.40	0.32	3.91	9.11	4.10	1.66	1.25	0.74	100.46	8320	62	387
95-2-180-190		54.20	1.92	17.91	8.75	0.14	1.42	4.90	5.98	2.24	0.37	0.65	100.10	>10000	57	490
95-2-190-200		56.00	1.74	19.45	6.91	0.11	0.67	3.52	6.54	2.56	0.11	0.79	100.13	>10000	63	582
95-2-200-210		46.50	3.55	9.92	21.56	0.51	2.54	8.20	3.96	1.96	0.66	<.05	99.76	3643	90	241
95-2-210-220		35.97	5.66	4.99	32.21	0.70	3.75	11.90	1.93	0.74	1.60	<.05	99.55	588	67	205
95-2-220-230		44.03	5.30	13.32	15.66	0.25	5.13	10.13	3.30	0.87	0.28	0.44	99.01	2235	58	750
95-2-230-240		46.23	4.53	14.16	13.50	0.21	4.22	9.37	3.72	1.27	0.37	1.61	99.89	5995	44	995
95-2-240-250		44.85	5.04	12.68	16.22	0.31	5.00	9.69	3.42	1.09	0.41	0.49	99.77	4871	46	767
95-2-250-260		45.87	4.32	13.62	14.83	0.27	4.54	9.58	3.75	1.05	0.62	0.63	99.77	5817	62	871
95-2-260-270		45.00	4.80	13.07	16.23	0.29	5.04	10.19	3.37	0.78	0.33	0.34	99.90	3704	70	782
95-2-270-280		45.33	4.35	14.45	15.97	0.25	4.17	9.15	3.65	0.86	0.39	0.40	99.61	5265	54	1217
95-2-280-290		49.37	2.89	17.37	11.77	0.17	2.68	7.82	4.74	1.12	0.68	0.45	100.05	8440	62	1279
95-2-290-300		45.57	4.08	14.15	15.64	0.23	4.93	9.97	3.45	0.88	0.44	0.29	100.17	4452	57	810

Table 2 - Intertek Testing Services Whole Rock Analyses for Hole 95-2.



## APPENDIX 3



### OVERBURDEN DRILLING MANAGEMENT LIMITED

June 30, 1999

Mr. Sudhir Jain  
26 BT RESOURCE DEVELOPMENT CO. LTD.  
MacLeod Place 1, Suite 200  
5920 MacLeod Trail S.W.  
Calgary, Alberta T2E 0K2

fax: (403) 212-0733

Dear Mr. Jain:

Re: Confirmation of Ti Mineralogy, Hole 94-4, British Columbia Titanium-Phosphate Project

As instructed on June 03, we have performed a brief scanning electron microscope (SEM) visual and energy dispersive x-ray spectrometry (EDS) analytical investigation of a single sample from the mineralized section in Hole 94-4. It will be recalled that your  $TiO_2$  analyses for this section (Table 1) are higher than those for other drill holes. As well, our earlier test work, particularly that described in my December 18, 1998 and June 01, 1999 reports, showed that the gabbro in Hole 94-4, unlike that in the other holes, is olivine-bearing and most of its  $TiO_2$  is held in ilmenite rather than titanomagnetite.

For our SEM/EDS study, we chose the sample from 65-75 feet because the  $TiO_2$  assay (7 percent), recovered ilmenite (7.7 percent) and  $TiO_2$  recovered as ilmenite ( $\approx 4$  percent) for this interval were typical of the 10-sample, 97.5 foot mineralized section. However, the mineralogy of the section is so consistent that any sample would have sufficed. As in our earlier (May 21) SEM/EDS study of the mineralization in Hole 95-2, we cast a representative subsample of the coarse (1-5 mm) crusher reject in an epoxy puck, ground and polished one side to a mirror finish, photographed the relationships of the Ti-oxides to other minerals by SEM (Plates 1 to 3) and analyzed the Ti-oxides by EDS (Figure 1).

The gabbro is unaltered; all minerals are primary (Plate 1). These minerals include 30-40 percent clinopyroxene (intermediate between diopside and hedenbergite), 25 percent olivine, 15-20 percent plagioclase and 15 percent FeTi-oxides plus accessory apatite and pyrrhotite. All minerals are anhedral but oxide-silicate grain boundaries are more complex than oxide-oxide or silicate-silicate boundaries (Plates 2, 3). Only two oxide minerals are present -- ilmenite and titanomagnetite. They occur mainly as 0.2-0.5 mm grains and their concentrations are subequal.

The ilmenite is relatively pure (Figure 1a) and therefore probably contains about 52 percent  $TiO_2$ . With 7-8 percent ilmenite present, the  $TiO_2$  -in-ilmenite content of the gabbro is roughly 4 percent. Interestingly, this matches the  $TiO_2$  -in-ilmenite recovered in our December 18 and June 01 tests on Hole 94-4. Our high recovery rate was probably achieved because the ilmenite is relatively coarse-grained and occurs only as discrete grains; ilmenite exsolution lamellae are not present in the titanomagnetite as in Hole 95-2. The titanomagnetite, which also constitutes 7-8 percent of the gabbro, appears to contain about 20 percent  $TiO_2$  (Figure 1b), accounting for a further 1.5 percent  $TiO_2$  and bringing the oxide total to 5.5 percent. The balance of the average 6 percent  $TiO_2$  assay value for the 97.5 foot mineralized section (Table 1) is probably held in the augite.

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.../p.2

Page 2  
Mr. Sudhir Jain

30 June 1999

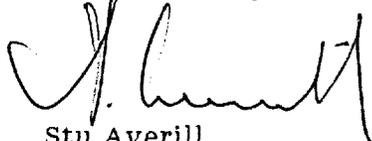
All minerals contain about 5 percent apatite as 0.01-0.05 mm (maximum 0.1-0.2 mm) inclusions but these inclusions are readily visible by SEM only in the ilmenite and titanomagnetite. Pyrrhotite is concentrated along the ilmenite and titanomagnetite boundaries; it occurs as minute (0.1-0.2 mm grains) that comprise less than 0.5 percent of the gabbro.

In summary, the Hole 94-4 olivine gabbro appears to contain about 4 percent  $TiO_2$  in ilmenite. The ilmenite has irregular grain boundaries but its 0.2-0.5 mm grain size and the absence of ilmenite exsolution lamellae in the titanomagnetite promote a very high rate of ilmenite recovery. Most of the remaining  $TiO_2$  is held in titanomagnetite which is also recoverable. Both oxides contain about 5 percent apatite inclusions but the apatite is very fine-grained and may be deleterious rather than a potential byproduct.

On a final note, I have enclosed Intertek's Zr analyses for the quartz diorite in Hole 96-3. The Zr content is only 0.1-0.15 percent.

I hope this information is helpful. Please call me if you have any questions.

Yours sincerely,



Stu Averill,  
President



CLIENT: OVERBURDEN DRILLING MGMT LTD  
REPORT: C99-60682.1 ( COMPLETE )

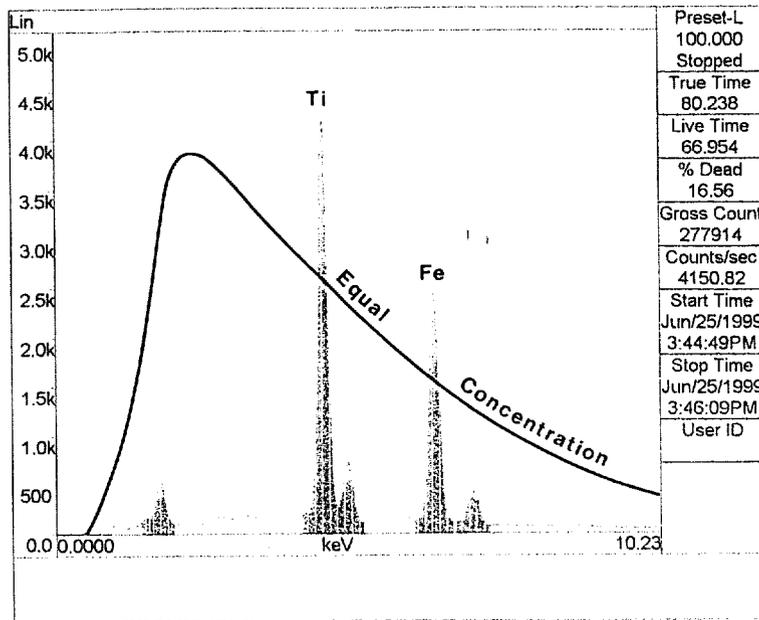
DATE RECEIVED: 31-MAR-99

DATE PRINTED: 20-APR-99 PAGE 1 OF 5

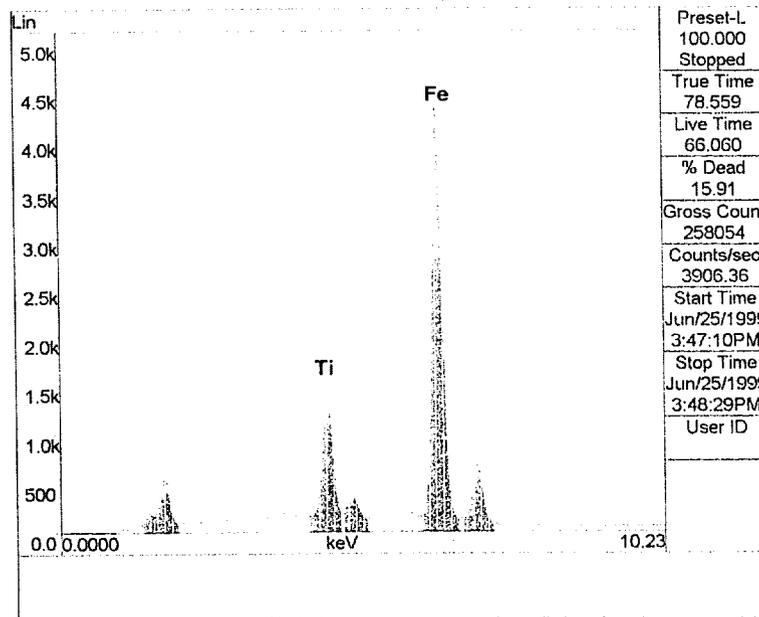
PROJECT: NONE

SAMPLE NUMBER	ELEMENT UNITS	SiO2 PCT	TiO2 PCT	Al2O3 PCT	Fe2O3* PCT	MnO PCT	MgO PCT	CaO PCT	Na2O PCT	K2O PCT	P2O5 PCT	LOI PCT	Total PCT	Ba PPM	Cr PPM	Sr PPM
94-4/2.5-15		41.07	5.76	11.74	18.60	0.31	5.98	10.91	2.75	0.27	2.50	0.20	100.36	1743	76	932
94-4/15-25		41.97	5.00	13.29	16.43	0.28	5.53	10.85	3.07	0.34	2.34	0.94	100.35	2063	51	1037
94-4/25-35		41.33	5.26	13.03	17.51	0.29	5.70	10.87	2.95	0.30	2.35	1.03	100.92	2010	52	1006
94-4/35-45		42.00	5.07	13.33	16.95	0.29	5.55	10.60	3.17	0.34	2.22	0.54	100.43	2412	55	1037
94-4/45-55		34.92	7.14	8.27	25.55	0.41	7.77	11.05	1.98	0.23	2.95	<0.05	100.49	1447	57	666
94-4/55-65		39.19	5.96	10.94	20.55	0.34	6.46	10.80	2.73	0.34	2.60	<0.05	100.22	2155	52	862
94-4/65-75		35.33	7.15	8.06	25.46	0.41	7.99	10.99	1.97	0.26	2.90	<0.05	100.76	1602	38	642
94-4/75-85		34.75	6.94	8.14	25.16	0.42	7.75	10.74	1.95	0.21	2.84	<0.05	99.14	1609	59	659
94-4/85-95		39.14	5.85	10.62	21.49	0.39	6.90	10.56	2.65	0.30	2.41	<0.05	100.62	2232	53	837
94-4/95-100		40.23	5.46	11.49	19.94	0.36	6.35	10.43	2.89	0.32	2.33	<0.05	100.15	2477	53	893

Table 1 - Intertek Testing Services Whole Rock Analyses for Hole 94-4.



1a - Ilmenite. TiO<sub>2</sub> content is approximately 52 percent.



1b - Titanomagnetite. TiO<sub>2</sub> content is approximately 20 percent.

**Figure 1 - EDS Analytical Spectra for Representative Ilmenite (1a) and Titanomagnetite (1b) Grains in Olivine Gabbro from 65-75 Foot Interval, Hole 94-4. Peak heights for the same concentrations of different elements vary according to the bell curve line. Primary peaks for Fe and Ti are flanked by an unlabeled smaller secondary peak.**



Plate 1 - Overview of fifteen fragments showing an average composition of 30-40 percent clinopyroxene (cpx; dark grey), 25 percent fayalitic (~Fo<sub>30</sub>) olivine (ol; medium grey), 15-20 percent plagioclase (pl; near-black), 7-8 percent ilmenite (ilm; pale grey), 7-8 percent titanomagnetite (tm; grey-white), 5 percent apatite (minute inclusions having medium grey tone similar to silicate minerals; therefore visible only in ilmenite and titanomagnetite grains) and <0.5 percent pyrrhotite (po; minute, bright white grains).

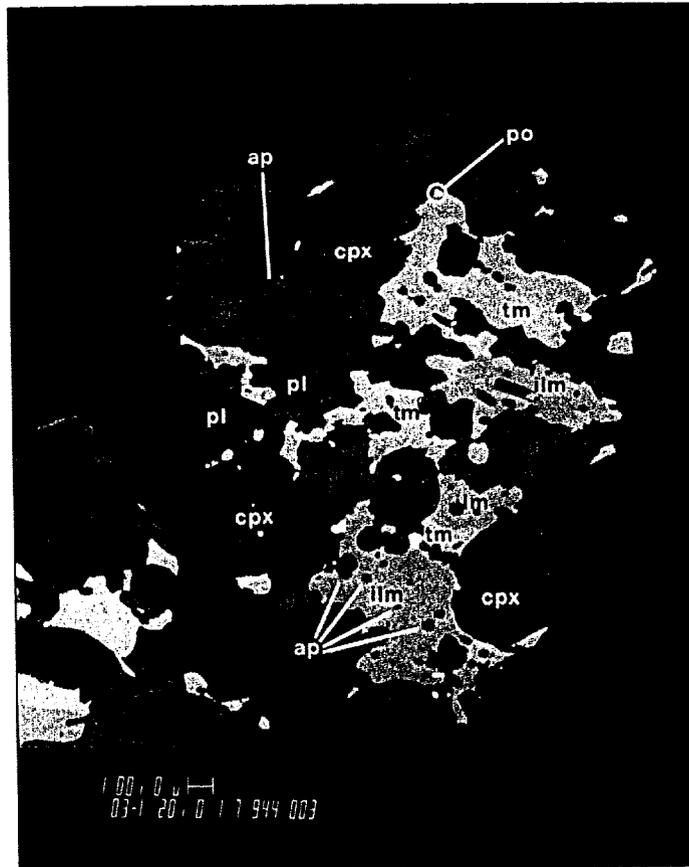


Plate 2 - Detail of a large, plagioclase-poor grain from Plate 1. Note the irregular grain boundaries and 0.2-0.5 mm grain size of the ilmenite and titanomagnetite, the high frequency of apatite inclusions (readily visible only in oxide minerals), the absence of ilmenite exsolution lamellae in the titanomagnetite, and the restriction of pyrrhotite to the margins of the ilmenite and titanomagnetite grains.

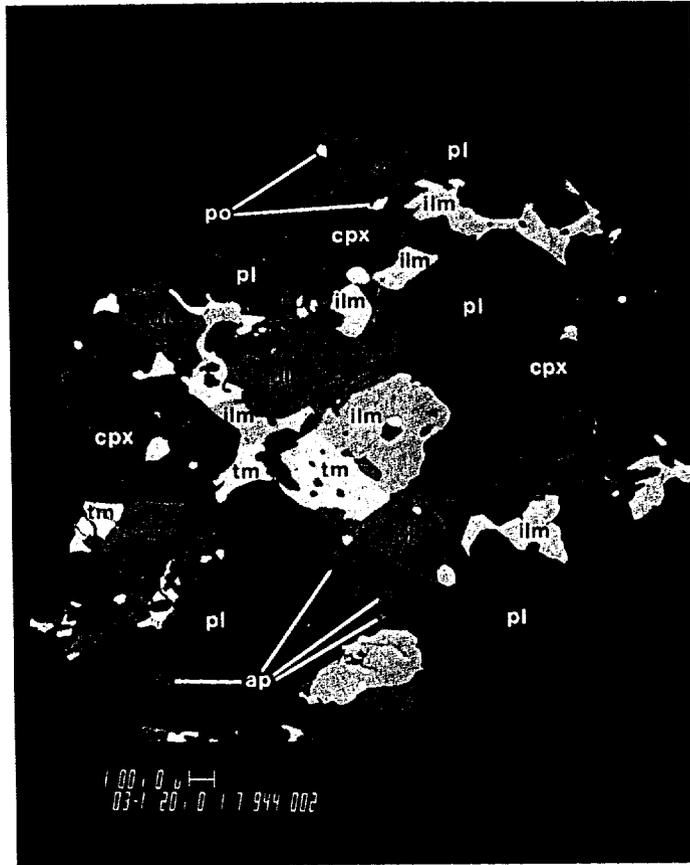


Plate 3 - Detail of a large, plagioclase-rich grain from Plate 1 showing the same relationships as Plate 2.

**ITS** Intertek Testing Services  
Chimitec

CLIENT: OVERBURDEN DRILLING MGNT LTD  
REPORT: C99-61162.0 ( COMPLETE )

DATE RECEIVED: 01-JUN-99

PROJECT: 26BTODM#955

DATE PRINTED: 23-JUN-99

PAGE 1 DE 1

SAMPLE NUMBER	ELEMENT UNITS	Zr PPM
96-3(40-50)		1089
96-3(50-60)		1593
96-3(60-70)		1173



## OVERBURDEN DRILLING MANAGEMENT LIMITED

June 01, 1999

Mr. Sudhir Jain  
26 BT RESOURCE DEVELOPMENT CO. LTD.  
MacLeod Place 1, Suite 200  
5920 MacLeod Trail S.W.  
Calgary, Alberta T2E 0K2

fax: (403) 212-0733

Dear Mr. Jain:

Re: Calculating Recoverable  $TiO_2$  and  $P_2O_5$  Grades from Ilmenite and Apatite Percentages,  
Hole 94-4, and Zr Grade from Zircon Content, Hole 96-3

---

Thank you for supplying the calculations that you used in your May 27 grade estimates for the above drill holes. Together with your May 26 telephone questions, these calculations made us realize that we had not supplied key figures needed to make grade calculations. These figures are the total weights for the 0.18 to 0.25 mm fraction.

Just to review, we crushed 2 kg from each 10-foot section to -2.0 mm but mineralogically processed only the 0.18 to 0.25 mm portion which we found to be: a) the most suitable grind size for a titanium milling operation as it consists almost entirely of liberated mineral grains rather than lithic grains, and b) representative of the whole sample (i.e. any or all of the sample ground to this size would give the same results). Consequently, the total weight of sample material on which the ilmenite and apatite recoveries for your ten Hole 94-4 samples should be based is the 0.18-0.25 mm crushed weight (1213.4 g; see supplementary table), not the total crushed weight figure (20,400 g) that you used. Obviously this has a major bearing on mineral recovery calculations!

Following is my calculation of  $TiO_2$  -in-ilmenite and  $P_2O_5$  -in-apatite recovery rates for Hole 94-4 using your format:

Total weight processed	1213.4 g
Total weight of HMC	752.7 g
Total weight of paramagnetic HMC	563.7 g
Average proportion of ilmenite in paramagnetic HMC, by volume	10-15%
Average proportion of ilmenite in paramagnetic HMC, by weight (x 1.3)	13-20%
Approximate weight of recoverable ilmenite in sample	75-115 g
Approximate grade of $TiO_2$ recoverable as ilmenite (basis 52 wt% contained $TiO_2$ )	3.2-4.9%
Average $TiO_2$ assay grade of samples	6.0%
Total weight of nonmagnetic HMC	39.8 g
Average proportion of apatite in nonmagnetic HMC, by volume	60%
Average proportion of apatite in nonmagnetic HMC, by weight (x 1.0)	60%
Approximate weight of recoverable apatite in sample	25 g
Approximate grade of $P_2O_5$ recoverable as apatite (basis 42% contained $P_2O_5$ )	0.8%
Average $P_2O_5$ assay grade of samples	2.5%

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Page 2  
Mr. Sudhir Jain

The 3.2 to 4.9 percent  $TiO_2$  recovery is lower than the 6.0 percent head grade but we know that about one-third of the  $TiO_2$  in Hole 94-4 occurs in titanomagnetite, pyroxene and biotite as outlined in my December 18, 1998 and May 21, 1999 reports. The apatite recovery is only 0.8 percent compared to the head grade of 2.5 percent due to the tendency of apatite to occur as inclusions finer than 0.18 mm in plagioclase and other minerals rather than as discrete grains like the titanium minerals as outlined in my May 21 report. Finer grinding at added cost would be required to achieve a satisfactory recovery rate.

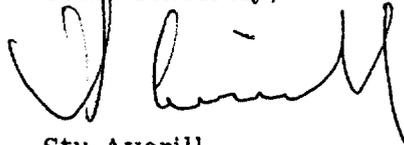
Turning to Hole 96-3, the weight of material processed from the three samples was 232.2 g, not 6,000 g. The corrected zircon values are shown below:

Total weight processed	232.2 g
Total weight of HMC	11.6 g
Total weight of nonmagnetic HMC	4.5 g
Average proportion of zircon in nonmagnetic HMC, by volume	20%
Average proportion of zircon in nonmagnetic HMC, by weight (x 1.25)	25%
Approximate weight of recoverable zircon in sample	1 g
Approximate grade of $ZrO_2$ recoverable as zircon (basis 67% contained $ZrO_2$ )	0.3%

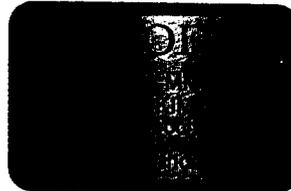
Since  $ZrO_2$  was not analyzed, we cannot calculate zircon recovery rates. The actual rates are probably low because zircon, to a greater extent than apatite, is an inclusion-forming accessory mineral similar to apatite. We have sent the three samples for analysis so that the recovery rates can be calculated.

I hope this information is helpful. We will now attend to identifying the reported rutile in the thin sections that we received today. The thin section descriptions suggest that any rutile present occurs as a microscopic alteration product of the ilmenite, augite and biotite and therefore is very fine-grained and would be difficult to recover.

Yours sincerely,



Stu Averill,  
President



FAXED  
June 01/99

SAMPLE NUMBER	Weight in Grams					TOTAL
	LIGHT MINERALS <SG 3.2	Heavy Minerals >SG 3.2			NONMAGNETIC (>1.0 amp)	
		TOTAL HEAVY MINERALS	FERROMAGNETIC	PARAMAGNETIC (<1.0 amp)		
94-4 (2.5-15 ft)	57.5	88.2	19.4	64.9	3.9	145.7
94-4(15-25 ft)	68.2	70.6	16.2	52.1	2.3	138.8
94-4(25-35 ft)	56.4	58.8	16.1	40.9	1.8	115.2
94-4(35-45 ft)	61.7	52.9	9.0	41.9	2.0	114.6
94-4(45-55 ft)	30.6	97.0	23.2	69.4	4.4	127.6
94-4(55-65 ft)	47.7	74.4	12.3	55.9	6.2	122.1
94-4(65-75 ft)	26.1	88.7	16.5	66.9	5.3	114.8
94-4(75-85 ft)	22.7	68.7	10.9	54.3	3.5	91.4
94-4(85-95 ft)	40.9	76.8	10.1	61.1	5.6	117.7
94-4(95-100 ft)	48.9	76.6	15.5	56.3	4.8	125.5
96-3(40-50 ft)	60.4	2.4	0.2	0.9	1.3	62.8
96-3(50-60 ft)	85.1	5.3	0.8	2.9	1.6	90.4
96-3(60-70 ft)	75.1	3.9	0.4	1.9	1.6	79.0



**OVERBURDEN DRILLING MANAGEMENT LIMITED**

May 25, 1999

Mr. Lorne Kelsch  
26 BT RESOURCE DEVELOPMENT CO. LTD.  
MacLeod Place 1, Suite 200  
5920 MacLeod Trail S.W.  
Calgary, Alberta T2E 0K2

fax: (403) 212-0733

Dear Mr. Kelsch:

Re: Titanium Mineralogy of Test Samples from Holes 96-1 and 96-3, British Columbia

Attached find our laboratory data for the nineteen 10-foot core samples tested from the above two drill holes. One other sample from Hole 96-1 had been tested earlier (December 10, 1998) but from a much deeper level (273 feet) and from an ultramafic (90 percent heavy minerals) rather than gabbroic section.

As in our other extensive tests, the principal Ti-oxide mineral is titanomagnetite with subordinate ilmenite and no rutile. The Hole 96-3 samples, which tend to be dioritic rather than gabbroic and are deficient in heavy minerals, also contain titanite and accessory zircon.

Some sections of the Hole 96-1 gabbro are hydrated and contain significant epidote and actinolite. These sections give lower grade magnetic (titanomagnetite-bearing) concentrates than fresh gabbro. As well, part of the apatite in this drill hole is too closely associated with magnetite to be fully separable from it.

I hope these observations are helpful. Please call me if you have any questions.

Yours sincerely,

Stu Averill,  
President



**FAXED**

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**OVERBURDEN DRILLING MANAGEMENT LIMITED**  
107-15 CAPELLA COURT, NEPEAN, ONTARIO, K2E 7X1  
TELEPHONE: (613) 226-1771/1774  
FAX NO.: (613) 226-8753  
EMAIL: odm@storm.ca

DATA TRANSMITTAL REPORT

DATE: 20-May-99

ATTENTION: **Mr. Lorne Kelsch**

CLIENT: **26 BT RESOURCE DEVELOPMENT CO. LTD.**  
MacLeod Place 1, Suite 200  
5920 MacLeod Trail S.W.  
Calgary, AB  
T2H 0K2

FAX NO.: (403) 212-0733

NO. OF PAGES:

PROJECT: Titanium 96-1 (55-65 ft) to 96-3 (290-300 ft)  
Mineralogy

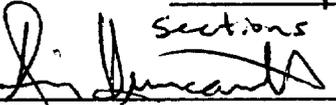
FILE NO: Ed Kruckowski 26BT (95-2).wb3

NO. OF SAMPLES: 19

THESE SAMPLES WERE PROCESSED FOR: Titanium-bearing minerals

SPECIFICATIONS: SUBMITTED BY CLIENT: 5-FOOT 1/4 NQ CORE SECTIONS.  
COMBINED INTO 10-FOOT SECTIONS AND CRUSHED TO <2.0 MM.  
PREPARED 0.18 MM TO 1.0 MM HEAVY MINERAL CONCENTRATE (S.G.>3.2)  
FROM 2 KG SPLIT OF CRUSHED PRODUCT.  
PARAMAGNETIC SEPARATION AND PICKING DONE ON 0.18 TO 0.25 MM  
FRACTION ONLY.  
ALL FRACTIONS ARE PRESENTLY STORED.

REMARKS: We have now completed our mineral study for  
all your core samples which reported >2% TiO<sub>2</sub>. Note however  
we did process samples 96-3 (40-50 ft), (50-60 ft) and (60-70 ft)  
sections even though TiO<sub>2</sub> was <2% as per your instructions.

  
Remy Huneault  
Laboratory Manager

## OVERBURDEN DRILLING MANAGEMENT LIMITED

PROJECT:  
TOTAL OF: 19 SAMPLES  
FILENAME: Ed Kruchkowski 26BT (95-2).wb3

Sample Number	Weight (kg)		Weight (g)														
	Total Rec'd and Crushed	Processed Split	Sieve Fractions			0.18 to 1.0 mm M.I. Separation (S.G. 3.20)											
			1.0 to 2.0 mm	0.18 to 1.0 mm	-0.18 mm	Total	M.I. Lights	FERROMAGNETIC HMC				NONFERROMAGNETIC HMC					
								Total Mag	-0.18 mm (wash)	0.18 to 0.25 mm	0.25 to 1.0 mm	Total Non Mag	-0.18 mm (wash)	0.18 to 0.25 mm	0.25 to 1.0 mm		
Titanium Mineralogy				*		*											
96-1(55-65)	5.35	2.00	477.0	679.4	843.6	574.3	220.9	76.8	6.5	14.0	56.3	276.6	40.2	58.5	177.9		
96-1(65-75)	5.10	2.00	479.2	691.8	829.0	611.2	224.5	85.6	6.5	14.0	65.1	301.1	33.6	64.2	203.3		
96-1(75-85)	5.05	2.00	504.5	651.2	844.3	529.8	198.1	100.0	6.2	14.7	79.1	231.7	34.6	53.1	144.0		
96-1(85-95)	4.85	2.00	457.9	720.1	822.0	614.0	234.1	109.2	7.4	15.6	86.2	270.7	32.1	58.3	180.3		
96-1(95-105)	5.00	2.00	530.4	720.9	748.7	578.0	145.5	84.1	9.4	10.0	64.7	348.4	57.2	61.2	230.0		
96-1(105-115)	4.75	2.00	536.8	674.4	788.8	529.4	183.9	83.9	8.9	11.5	63.5	261.6	48.9	48.8	163.9		
96-1(115-125)	4.10	2.00	549.1	645.7	805.2	563.8	208.0	88.7	5.6	12.7	70.4	267.1	33.8	53.8	179.5		
96-1(125-135)	5.55	2.00	454.2	642.8	903.0	583.1	196.5	115.7	5.4	16.8	93.5	270.9	31.2	56.9	182.8		
96-1(135-145)	5.50	2.00	434.0	696.2	869.8	630.2	223.4	119.0	6.1	15.5	97.4	287.8	37.2	61.0	189.6		
96-1(145-155)	5.35	2.00	485.1	693.0	821.9	630.0	246.0	78.5	5.2	11.6	61.7	305.5	34.6	57.3	213.6		
96-1(155-165)	5.20	2.00	582.3	682.7	735.0	534.6	167.7	94.7	9.8	14.8	70.1	272.2	41.1	56.5	174.6		
96-1(165-175)	5.25	2.00	466.9	696.3	836.8	602.0	194.0	149.8	9.8	21.5	118.5	258.2	32.6	56.2	169.4		
96-1(175-180)	2.35	2.00	643.2	641.3	715.5	433.8	238.5	56.8	4.1	7.9	44.8	138.5	26.2	32.2	80.1		
96-3(40-50)	3.40	2.00	577.8	574.8	847.4	442.4	430.8	1.0	0.2	0.2	0.6	10.6	3.3	2.2	5.1		
96-3(50-60)	3.35	2.00	528.0	638.8	833.2	565.6	542.9	4.8	1.0	0.8	3.0	17.9	4.5	4.5	8.9		
96-3(60-70)	4.15	2.00	477.8	611.8	910.4	477.6	464.2	2.2	0.6	0.4	1.2	11.2	2.9	3.5	4.8		
96-3(270-280)	3.75	2.00	608.5	614.2	777.3	462.8	262.2	49.5	8.3	8.0	33.2	151.1	24.4	36.5	90.2		
96-3(280-290)	3.20	2.00	446.6	696.1	857.3	479.0	413.8	27.1	4.4	5.1	17.6	38.1	6.5	9.0	22.6		
96-3(290-300)	4.80	2.00	446.6	606.7	946.7	544.6	475.6	30.5	3.3	6.3	20.9	38.5	5.1	9.1	24.3		

\* After initial dry sieving, weight of 0.18-1.0 mm fraction is further reduced 10-20 percent by oxalic acid wash to remove adhering -0.18 mm crusher dust prior to final M.I. separation.

Table 1 - Sample Processing Weights.

## OVERBURDEN DRILLING MANAGEMENT LIMITED

FILENAME: Ed Kruchkowski 26BT (95-2).wb3  
 PROJECT: Titanium Mineralogy  
 TOTAL OF 19 SAMPLES

SAMPLE NO.	FRACTION	SEPARATION AMPERAGE	MINERALOGY (VOLUME PERCENT)											REMARKS:
			MT	ILM	RUT	TT	CPX	OL	BT	EP	AP	GTH	PY	
96-1(55-65)	Ferromagnetic	NA	90-92	TR	0	0	3-5	0	0	0	5	0	0	SEM checks from 0.18-0.25 mm fraction: 4 representative Fe-oxide candidates = 4 titanomagnetite (5-10 wt% TiO <sub>2</sub> ).
	Paramagnetic	<1.0	3-5	1	0	0	80-85	0	0	5	2-3	0	TR	1-3% hornblende.
	Nonmagnetic	>1.0	0	0	0	0	45-55	0	0	TR	45-55	0	0.5	Trace hornblende.
96-1(65-75)	Ferromagnetic	NA	85-90	TR	0	0	5-10	0	RTR	TR	5	0	TR	
	Paramagnetic	<1.0	0	1	0	0	90-95	0	RTR	3-5	2-3	0	0	
	Nonmagnetic	>1.0	0	0	0	0	30-40	0	0	0.5	60-70	0	0.5	
96-1(75-85)	Ferromagnetic	NA	80-85	TR	0	0	10-20	0	0	RTR	3-5	0	0	
	Paramagnetic	<1.0	0	1	0	0	90-95	0	0	5-10	1-2	0	TR	
	Nonmagnetic	>1.0	0	0	0	0	45-55	0	RTR	2-3	45-55	0	TR	
96-1(85-95)	Ferromagnetic	NA	70-80	1	0	0	20-30	0	0	TR	5-10	0	TR	
	Paramagnetic	<1.0	0	2	0	0	70-80	0	0	10-15	1-2	0	0	1% hornblende. 5-10% actinolite.
	Nonmagnetic	>1.0	0	0	0	RTR	40-50	0	0	2	50-60	0	0.5	Trace actinolite.
96-1(95-105)	Ferromagnetic	NA	80-85	0.5	0	0	0	0	0	5	3-5	0	TR	5-10% actinolite.
	Paramagnetic	<1.0	0	TR	0	0	25-35	0	0	45-55	TR	0	TR	30-40% actinolite.
	Nonmagnetic	>1.0	0	0	0	0	30-40	0	0	30-40	30-40	0	2-3	5-10% actinolite.
96-1(105-115)	Ferromagnetic	NA	70-80	2	0	0	15-25	0	0	1	3-5	0	TR	
	Paramagnetic	<1.0	0	0.5	0	0	65-75	0	0	15-25	2	0	TR	Rare trace hornblende. 5-10% actinolite.
	Nonmagnetic	>1.0	0	0	0	0	45-55	0	0	10-15	30-40	0	0.5	Rare trace hornblende. 5-10% actinolite.
96-1(115-125)	Ferromagnetic	NA	75-85	2	0	0	10-15	0	0	0	5	0	0	Trace actinolite.
	Paramagnetic	<1.0	0	3-5	0	0	85-90	0	RTR	2	2-3	0	0	2-3% actinolite.
	Nonmagnetic	>1.0	0	0	0	0	40-50	0	0	1-2	50-60	0	1	Rare trace hornblende. Trace actinolite.
96-1(125-135)	Ferromagnetic	NA	75-85	2-3	0	0	10-20	0	0	RTR	5	0	0	Trace actinolite.
	Paramagnetic	<1.0	0	TR	0	0	90-95	0	0	1-2	2-3	0	RTR	Trace hornblende. 2-3% actinolite.
	Nonmagnetic	>1.0	0	0	0	0	45-55	0	0	1-2	45-55	0	0.5	Rare trace hornblende. Rare trace actinolite.
96-1(135-145)	Ferromagnetic	NA	75-85	2-3	0	0	10-20	0	0	0	5	0	0	SEM checks from 0.18-0.25 mm fraction: 3 representative Fe-oxide candidates = 3 titanomagnetite (5-10 wt% TiO <sub>2</sub> ).
	Paramagnetic	<1.0	0	0	0	0	90-95	0	RTR	1	3-5	0	RTR	Trace hornblende.
	Nonmagnetic	>1.0	0	0	0	0	40-50	0	0	0.5	50-60	0	1	Rare trace hornblende. Trace actinolite.
96-1(145-155)	Ferromagnetic	NA	75-85	1	0	0	10-20	0	0	0	5-10	0	0	
	Paramagnetic	<1.0	0	TR	0	0	90-95	0	0	1-2	1-2	0	TR	3-5% actinolite.
	Nonmagnetic	>1.0	0	0	0	0	40-50	0	0	1	50-60	0	TR	

FILENAME: Ed Kruchkowski 26BT (95-2).wb3  
 PROJECT: Titanium Mineralogy  
 TOTAL OF 19 SAMPLES

SAMPLE NO.	FRACTION	SEPARATION AMPERAGE	MINERALOGY (VOLUME PERCENT)											REMARKS:
			MT	ILM	RUT	TT	CPX	OL	BT	EP	AP	GTH	PY	
96-1(155-165)	Ferromagnetic	NA	40-50	5-10	0	0	30-40	0	0	1-2	1-3	0	0	Trace actinolite.
	Paramagnetic	<1.0	0	TR	0	0	70-80	0	0	20-30	0.5	0	TR	
	Nonmagnetic	>1.0	0	0	0	0	50-60	0	0	1-2	40-50	0	2	
96-1(165-175)	Ferromagnetic	NA	55-65	1-2	0	0	20-30	0	0	0.5	2-3	0	0	3% actinolite. 1% actinolite.
	Paramagnetic	<1.0	0	1-2	0	0	70-80	0	0	15-25	0.5	0	RTR	
	Nonmagnetic	>1.0	0	0	0	0	40-50	0	0	1-2	50-60	0	3-5	
96-1(175-180)	Ferromagnetic	NA	50-60	1-2	0	0	30-40	0	0	1-2	5-10	0	TR	Trace actinolite. SEM checks from 0.18-0.25 mm fraction: 2 representative pale yellow-brown titanite candidates = 2 titanite.
	Paramagnetic	<1.0	0	0.5	0	RTR	30-40	0	0	60-70	TR	0	0.5	
	Nonmagnetic	>1.0	0	0	0	15-20	50-60	0	0	1-2	15-20	0	5-7	
96-3(40-50)	Ferromagnetic	NA	90-92	1	0	0	1-3	0	0	0	5	0	0	SEM checks from 0.18-0.25 mm fraction: 4 representative Fe-oxide candidates = 4 titanomagnetite (~5 wt% TiO <sub>2</sub> ). Trace hornblende. 1% zircon.
	Paramagnetic	<1.0	0	0.5	0	1-2	30-40	0	0	TR	TR	0	0	
	Nonmagnetic	>1.0	0	0	0	50-60	15-20	0	0	0	1	0	RTR	
96-3(50-60)	Ferromagnetic	NA	90-95	TR	0	2-3	1-2	0	RTR	0	1	0	0	2-3% hornblende. Rare trace zircon. 95-97% hornblende. Trace zircon. "Hornblende" is a mixture of both green-black hornblende and green-black clinopyroxene.
	Paramagnetic	<1.0	0	RTR	0	3-5	0	0	0	0	0	0	0	
	Nonmagnetic	>1.0	0	0	0	55-65	0	0	0	0	0.5	0	0	
96-3(60-70)	Ferromagnetic	NA	95-97	0	0	1	TR	0	0	TR	2-3	0	0	95% hornblende. Rare trace zircon. "Hornblende" is a mixture of both green-black hornblende and green-black clinopyroxene.
	Paramagnetic	<1.0	0	0	0	5	0	0	0	0	0	0	0	
	Nonmagnetic	>1.0	0	0	0	45-55	10-15	0	0	0	0	0	0	
96-3(270-280)	Ferromagnetic	NA	30-40	1	0	RTR	60-70	0	0	0	0	0	0	5-10% hornblende. 0.5% hornblende. 1-2% zircon.
	Paramagnetic	<1.0	0	0.5	0	0.5	90-95	0	0	0.5	0	0	0	
	Nonmagnetic	>1.0	0	0	0	5-10	65-70	0	0	RTR	20-30	0	1	

FILENAME: Ed Kruchkowski 26BT (95-2).wb3  
 PROJECT: Titanium Mineralogy  
 TOTAL OF 19 SAMPLES

SAMPLE NO.	FRACTION	SEPARATION AMPERAGE	MINERALOGY (VOLUME PERCENT)											REMARKS:
			MT	ILM	RUT	TT	CPX	OL	BT	EP	AP	GTH	PY	
96-3(280-290)	Ferromagnetic	NA	60-70	1	0	TR	30-40	0	0	0	0	0	0	5% homblende. Rare trace zircon.
	Paramagnetic	<1.0	0	15-25	0	2-3	65-75	0	0	TR	1-2	0	0	
	Nonmagnetic	>1.0	0	0	0	15-20	45-55	0	0	2-3	15-20	0	0	10-15% homblende. 1% zircon.
96-3(290-300)	Ferromagnetic	NA	60-70	20-30	0	1	5	0	0	0	5	0	0	Rare trace actinolite. 0.5% zircon.
	Paramagnetic	<1.0	0	5-10	0	3-5	75-85	0	0	RTR	0.5	0	0	
	Nonmagnetic	>1.0	0	0	0	50-60	5-10	0	0	0	20-30	0	RTR	2-3% zircon.

Table 2 - Mineralogy of the 0.18-0.25 mm Heavy Mineral Fraction. Heavy lithic grains, where present, are classified according to their dominant contained heavy mineral species.

## OVERBURDEN DRILLING MANAGEMENT LIMITED

SAMPLE NUMBER	Weight (g) of Heavy Minerals in 0.18 to 0.25 mm Fraction			
	TOTAL	FERROMAGNETIC	PARAMAGNETIC (<1.0 amp)	NONMAGNETIC (>1.0 amp)
96-1(55-65)	72.5	14.0	55.6	2.9
96-1(65-75)	78.2	14.0	61.2	3.0
96-1(75-85)	67.8	14.7	50.5	2.6
96-1(85-95)	73.9	15.6	55.6	2.7
96-1(95-105)	71.2	10.0	58.5	2.7
96-1(105-115)	60.3	11.5	46.0	2.8
96-1(115-125)	66.5	12.7	51.8	2.0
96-1(125-135)	73.7	16.8	53.7	3.2
96-1(135-145)	76.5	15.5	57.1	3.9
96-1(145-155)	68.9	11.6	53.2	4.1
96-1(155-165)	71.3	14.8	52.8	3.7
96-1(165-175)	77.7	21.5	52.6	3.6
96-1(175-180)	40.1	7.9	27.5	4.7
96-3(40-50)	2.4	0.2	0.9	1.3
96-3(50-60)	5.3	0.8	2.9	1.6
96-3(60-70)	3.9	0.4	1.9	1.6
96-3(270-280)	44.5	8.0	33.6	2.9
96-3(280-290)	14.1	5.1	8.1	0.9
96-3(290-300)	15.4	6.3	7.4	1.7

Table 3 - Magnetic Susceptibility of Heavy Minerals in 0.18 to 0.25 mm Fraction. No paramagnetic separation done on other HMC fractions.



# Intertek Testing Services

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CLIENT: OVERBURDEN DRILLING MGMT LTD  
 REPORT: C99-60682.1 ( COMPLETE )

DATE RECEIVED: 31-MAR-99

PROJECT: NONE  
 DATE PRINTED: 20-APR-99

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SAMPLE NUMBER	ELEMENT UNITS	SiO2 PCT	TiO2 PCT	.12O3 PCT	Fe2O3* PCT	MnO PCT	MgO PCT	CaO PCT	Na2O PCT	K2O PCT	P2O5 PCT	LOI PCT	Total PCT
96-1/55-65		42.51	3.69	12.14	14.91	0.19	8.11	14.94	1.57	0.56	0.59	1.55	100.89
96-1/65-75		42.06	3.66	11.40	15.20	0.20	8.47	14.85	1.48	0.61	0.52	1.76	100.36
96-1/75-85		40.51	4.30	11.75	15.65	0.22	7.94	15.06	1.49	0.64	1.14	1.59	100.43
96-1/85-95		41.71	3.73	11.94	14.94	0.20	7.84	14.92	1.48	0.59	0.59	2.01	100.08
96-1/95-105		38.90	3.62	11.45	15.79	0.19	8.20	15.85	0.84	0.29	0.85	2.88	99.06
96-1/105-115		40.71	3.79	12.05	15.41	0.21	8.04	15.07	1.36	0.53	0.81	2.06	100.19
96-1/115-125		42.20	3.78	11.58	15.29	0.21	8.23	15.23	1.57	0.44	0.46	1.29	100.40
96-1/125-135		42.06	3.75	11.44	15.21	0.21	8.19	15.27	1.61	0.37	0.53	1.23	100.00
96-1/135-145		42.61	3.65	11.65	14.95	0.21	8.27	15.25	1.67	0.42	0.45	1.03	100.29
96-1/145-155		42.79	3.57	11.64	14.74	0.20	8.01	15.03	1.79	0.42	0.36	1.43	100.11
96-1/155-165		39.25	3.63	10.87	16.04	0.21	8.14	15.84	1.22	0.28	0.70	2.73	99.03
96-1/165-175		36.63	4.49	10.36	17.78	0.23	7.55	15.53	1.15	0.36	1.27	2.57	98.04
96-1/175-180		40.35	2.56	13.48	11.34	0.17	7.00	17.83	0.96	0.49	0.50	5.10	99.88
96-3/20-30		47.78	1.17	13.40	8.41	0.27	4.26	19.09	1.64	1.61	0.45	2.44	100.61
96-3/30-40		56.67	0.76	16.87	5.33	0.18	1.37	8.21	4.18	4.85	0.21	1.43	100.18
96-3/40-50		57.71	1.41	15.99	6.06	0.13	2.92	5.63	5.39	2.57	0.27	2.66	100.82
96-3/50-60		62.54	0.69	16.03	4.38	0.19	1.51	2.86	6.56	3.57	0.09	1.78	100.26
96-3/60-70		56.83	1.50	14.97	6.59	0.23	2.81	5.72	4.38	2.80	0.25	4.69	100.83
96-3/70-80		60.80	0.75	13.45	5.02	0.24	3.28	6.03	5.54	2.68	0.09	2.19	100.10
96-3/80-90		55.50	1.49	12.31	7.92	0.21	5.42	9.08	4.11	1.38	0.28	3.03	100.81
96-3/90-100		56.95	1.12	12.71	6.36	0.19	5.56	10.29	2.94	1.39	0.25	2.32	100.16
96-3/100-110		66.89	0.61	10.51	5.70	0.13	4.39	6.82	1.55	0.50	0.15	2.97	100.28
96-3/110-120		58.83	0.86	14.12	7.33	0.35	2.77	5.88	6.02	2.08	0.24	1.38	99.95
96-3/120-130		59.17	0.28	11.86	7.69	0.50	3.36	7.56	5.13	1.89	0.11	3.03	100.64
96-3/130-140		67.75	0.20	9.41	6.65	0.37	3.04	5.49	4.99	1.17	0.12	0.99	100.22
96-3/270-280		43.19	3.69	10.31	14.34	0.25	7.12	12.60	2.37	0.85	1.48	3.23	99.52
96-3/280-290		41.36	3.81	12.24	13.26	0.24	4.22	10.66	1.48	0.96	1.67	9.34	99.28
96-3/290-300		54.65	2.16	14.85	9.34	0.18	2.21	4.98	5.87	2.97	0.75	2.13	100.16



# Intertek Testing Services

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 REPORT: C99-60682.1 ( COMPLETE )

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SAMPLE NUMBER	ELEMENT UNITS	Ba PPM	Cr PPM	Sr PPM
96-1/55-65		163	338	850
96-1/65-75		160	358	823
96-1/75-85		157	269	929
96-1/85-95		170	322	953
96-1/95-105		74	254	1614
96-1/105-115		138	274	1230
96-1/115-125		135	366	853
96-1/125-135		137	373	813
96-1/135-145		141	374	814
96-1/145-155		156	347	770
96-1/155-165		118	360	895
96-1/165-175		140	168	816
96-1/175-180		171	85	866
96-3/20-30		365	91	309
96-3/30-40		586	74	457
96-3/40-50		278	51	342
96-3/50-60		217	55	187
96-3/60-70		306	96	258
96-3/70-80		200	73	173
96-3/80-90		281	139	301
96-3/90-100		222	85	385
96-3/100-110		84	142	393
96-3/110-120		390	50	320
96-3/120-130		329	22	199
96-3/130-140		247	96	88
96-3/270-280		273	194	495
96-3/280-290		181	<10	293
96-3/290-300		342	37	364



## **OVERBURDEN DRILLING MANAGEMENT LIMITED**

Mr. Ed Kruchkowski  
c/o AURORA CORROSION CONTROL  
3773 - 19th Street N.E.  
Calgary, Alberta T2E 6S8

May 21, 1999

fax: (403) 250-5872

Dear Mr. Kruchkowski:

Re: Resolution of Ti Mineralogy, British Columbia Titanium-Phosphate Project,  
26BT Resource Development Company Ltd.

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As proposed in my May 13 letter and agreed in our May 19 telephone discussions, we have performed a brief scanning electron microscope (SEM) visual and energy dispersive x-ray (EDS) analytical investigation on 26BT's gabbro samples to resolve reported differences between: 1) the Ti mineral species recovered in our heavy mineral processing of the mineralized drill core and those observed in other thin section studies; and 2)  $\text{Fe}_2\text{O}_3$ ,  $\text{TiO}_2$  and  $\text{P}_2\text{O}_5$  whole rock analyses and the quantity of  $\text{Fe}_2\text{O}_3$ ,  $\text{TiO}_2$  and  $\text{P}_2\text{O}_5$  recovered in our heavy mineral concentrates. These questions are outlined in Sudhir's May 14 letter, a copy of which is attached. Sudhir's questions relate specifically to Hole 94-4. We performed our tests on samples from Hole 95-2 because these samples were already mounted and polished ready for SEM analysis. However, the SEM results for all holes would be expected to be very similar as our heavy mineral processing results are very consistent between holes.

We used crusher rejects from four 10-foot sample intervals in our test work -- 30-40, 50-60, 130-140 and 140-150 feet. The reject material, consisting of 1-5 mm rock fragments, was cast in epoxy pucks, one side of which was ground and polished to a mirror finish suitable for SEM photography and EDS analysis. A brief SEM examination showed similar mineralogy in all four samples; therefore a single sample (130-140 foot interval) was photographed (Plate 1) and analyzed (Fig. 1) in detail.

SEM photography relies on density contrasts to highlight different mineral species. In 26BT's samples, Fe and Ti oxides are nearly white, marginally heavy apatite, pyroxene and biotite are medium grey and low-density plagioclase is dark grey (Plate 1). By volume, the subject gabbro consists of 50-60 percent plagioclase, 30-35 percent augite, 3-5 percent biotite, 10 percent Fe and Ti oxides and 1-2 percent apatite (Plates 1a to 1c).

**Mines  
Are  
Where WE  
Find Them.**

/... p.2

The Ti-bearing minerals (Table 1) are titanomagnetite, ilmenite, biotite and augite. Rutile is absent, even at micron scale, corroborating our earlier heavy mineral processing results where none was found. Titanomagnetite is on average ten times more abundant than ilmenite (Plates 1a, b) although in local patches the two minerals occur in subequal concentrations (Plate 1c). Both minerals occur in close association with the ferromagnesian silicate minerals (augite and biotite; Plates 1a to 1c), not with plagioclase. The titanomagnetite contains approximately 15 percent  $\text{TiO}_2$  in solid solution (Fig. 1a) whereas the ilmenite contains 55 percent (Fig. 1b). In some grains, part of the  $\text{TiO}_2$  has exsolved from the magnetite, forming thin (maximum 0.02 mm) parallel ilmenite lamellae (Plate 1d) and lowering the  $\text{TiO}_2$  content of the inter-lamellae titanomagnetite to 10 percent (Fig. 1c). The ilmenite contributes only 28 percent of the  $\text{TiO}_2$  in the gabbro compared to 57 percent from the titanomagnetite due to the much greater abundance of titanomagnetite (Table 1). The balance is contributed by the augite which contains 1 percent  $\text{TiO}_2$  (Fig. 1d) and biotite which contains 5 percent  $\text{TiO}_2$  (Fig. 1e).

Much of the gap between the  $\text{Fe}_2\text{O}_3$  content of the Fe-Ti oxide minerals in our concentrates and the 8-16 percent  $\text{Fe}_2\text{O}_3$  whole rock values (Table 2) is explained by the abundant augite and biotite which together would be expected to contribute about 6-8 percent  $\text{Fe}_2\text{O}_3$ . The  $\text{Fe}_2\text{O}_3$  gap narrows in relation to total  $\text{Fe}_2\text{O}_3$  as the titanomagnetite content of the rock increases. The remaining gap is explained by the very fine grain size of part of the titanomagnetite and ilmenite; 20-30 percent by volume is silt-sized ( $<0.1$  mm; Plate 1a), well below the 0.18-0.25 mm grain size used in our recovery tests which were intended to simulate recoveries achievable in an actual mining and milling operation. The larger, recoverable titanomagnetite and ilmenite grains are in the 0.2 to 0.4 mm range (Plates 1a to 1c) which is rather small compared to the grain size of productive deposits in anorthosites. Moreover, rather than having sharp, mill-friendly boundaries, much of the titanomagnetite is shrouded in biotite (Plates 1b, d).

The apatite occurs as isolated crystals, mainly in association with plagioclase (Plates 1b, c, d). Most grains are much smaller than the 0.18 mm cut-off used in our processing tests; this explains the missing  $\text{P}_2\text{O}_5$  mentioned by Sudhir.

An interesting feature of the gabbro is the presence of barian feldspar (hyalophane) lamellae in the plagioclase (Plates 1b, d, f; Figs. 1f, g). This explains the high Ba content (0.5-1.5 percent; Table 2) of the gabbro and the absence of barite in our heavy mineral concentrates.

Page 3

Mr. Kruchkowski

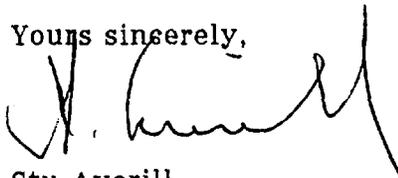
14

In summary, our SEM study has fully corroborated our earlier and ongoing heavy mineral processing results and has revealed additional details on the mineralogy of the gabbro. Sudhir mentioned that I appeared to be very negative about the project. It would not be appropriate for me to form an opinion on the project itself as many factors influence the viability of a titanium operation and the only factor I have considered is the mineralogy. However, I would have been remiss in my responsibilities if I had not reported from the outset, as I did on December 10, 1998, the apparent milling/metallurgical problems of the mineralization. Our SEM study has confirmed these problems and identified others. The problems are:

1. Rutile, the most valuable Ti ore mineral, is absent.
2. Approximately 60 percent of the  $TiO_2$  value resides in solid solution form in titanomagnetite, requiring chemical extraction.
3. Although significant ilmenite is present, part of it occurs as thin exsolution lamellae rather than discrete grains and would be difficult to separate from the titanomagnetite by milling.
4. Much of the titanomagnetite is shrouded in biotite which would be difficult to separate by milling and therefore dilute the titanomagnetite concentrate.
5. Approximately 20-30 percent by volume of the titanomagnetite and ilmenite occurs in grains too small to be free-milling.
6. Most of the byproduct apatite is too fine-grained to be free-milling.

The milling/metallurgical problems appear to be common to the mineralization in all four drill holes that we have tested and therefore may extend throughout the gabbro intrusive. Possibly some or all of the problems could be overcome in a deposit of sufficient grade but the mineralization encountered to date is of modest grade. I hope our test results are useful for resolving the future direction of the project.

Yours sincerely,



Stu Averill,  
President

cc Sudhir Jain

**Plate 1 - SEM Photos of Representative Fragments of Crushed Gabbro from the 130-140 Foot Interval, Hole 95-2.** Brightness of minerals increases with density. Scale bar is 0.1 or 0.01 mm (100 or 10 microns) as indicated.

Plate 1a - Overview of 15 fragments showing an average composition of 50-60 percent plagioclase (pl; dark grey), 30-40 percent augite + biotite + apatite (aug + bt + ap; medium grey) and 10 percent titanomagnetite ± ilmenite (tm, ilm; grey-white). Note that the titanomagnetite and ilmenite grains are closely associated with augite and biotite and that 20-30 percent (by volume) of the grains are silt-sized inclusions (<0.1 mm) which would not readily be liberated by milling.

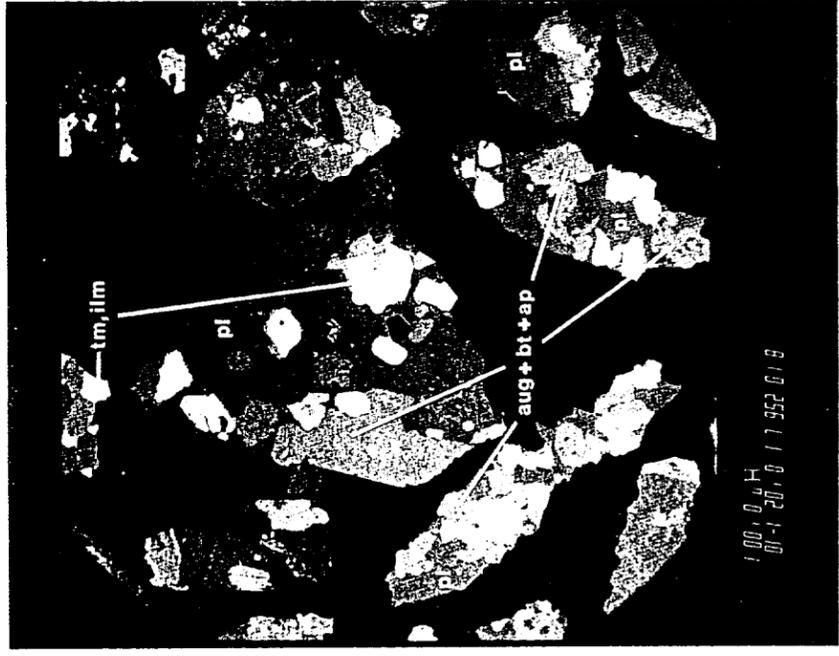
Plate 1b - Typical section showing a 10:1 ratio of titanomagnetite (tm; white) to ilmenite (ilm; very pale grey) and 1-2 percent apatite occurring as silt-sized inclusions (<0.1 mm) in plagioclase (pl; dark grey). Note: 1) the perthitic texture of some of the plagioclase, 2) the shrouding of the titanomagnetite by biotite (bt) which has the same medium grey tone as the augite (aug), and 3) the presence of ilmenite as thin exsolution lamellae in one titanomagnetite grain. The titanomagnetite contains approximately 15 percent TiO<sub>2</sub>, the biotite contains 5 percent and the augite 1 percent.

Plate 1c - Atypical section with an unusually low 1:1 ratio of titanomagnetite (tm; white) to ilmenite (ilm; very pale grey). Both oxides are closely associated with augite and biotite (aug, bt; both medium grey). Apatite (ap; pale grey crystals) is more closely associated with plagioclase (pl; dark grey), comprises 1-2 percent of the gabbro, and occurs mainly as silt-sized (<0.1 mm) inclusions which would not be liberated by milling.

Plate 1d - Detail of the lamellar titanomagnetite-ilmenite grain of Plate 1b showing thin (0.005-0.02 mm) ilmenite (ilm; pale grey) exsolution lamellae in the titanomagnetite (tm; grey-white) which contains less (10 percent versus 15 percent) TiO<sub>2</sub> than unexsolved titanomagnetite. The grain is shrouded by biotite (bt; medium grey). Note the slightly perthitic texture of the plagioclase (pl; dark grey) and the presence of 2 percent apatite (ap; medium grey crystals) as silt-sized inclusions (<0.1 mm) in both the plagioclase and titanomagnetite.

Plate 1e - Extreme detail of a titanomagnetite grain (tm; grey-white) showing hints of submicroscopic (<0.001 mm), irregularly oriented ilmenite (ilm; pale grey) exsolution lamellae. The dark grey dendritic inclusions appear to be calcite (cal).

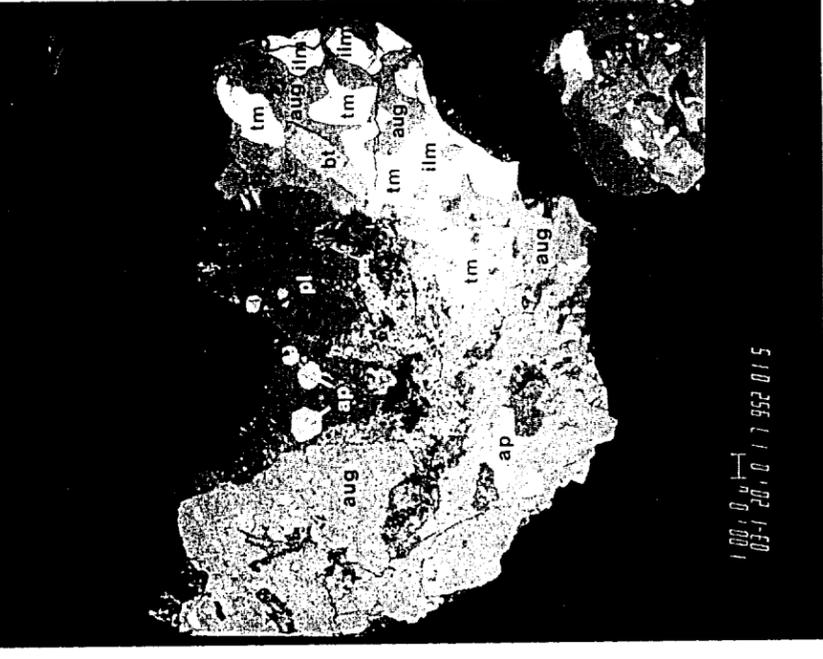
Plate 1f - Detail of a perthitic plagioclase grain showing pale grey hyalophane ((K,Ba)Al(Si,Al)<sub>3</sub>O<sub>8</sub>) lamellae in dark grey andesine ((Na,Ca)Al<sub>1-2</sub>Si<sub>2-3</sub>O<sub>8</sub>)).



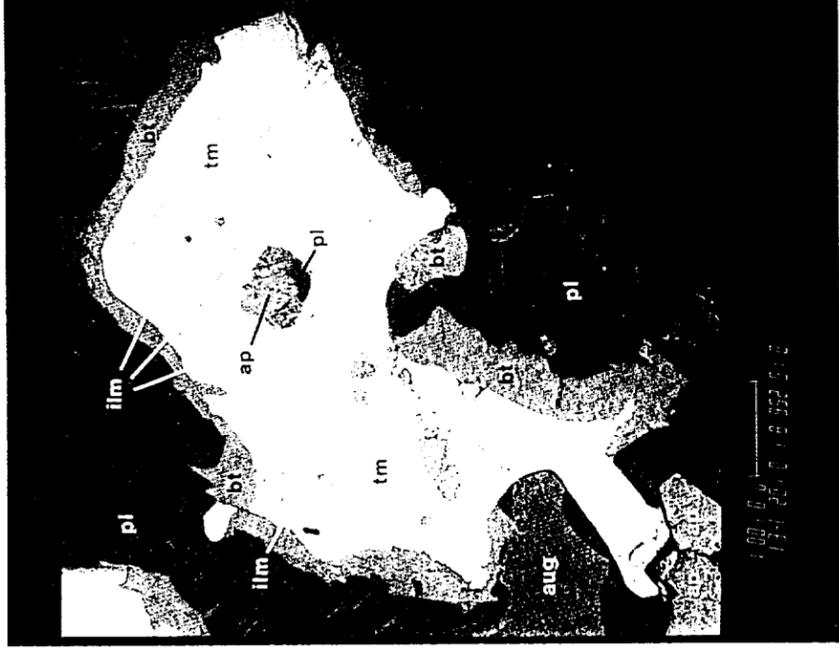
1a)



1b)



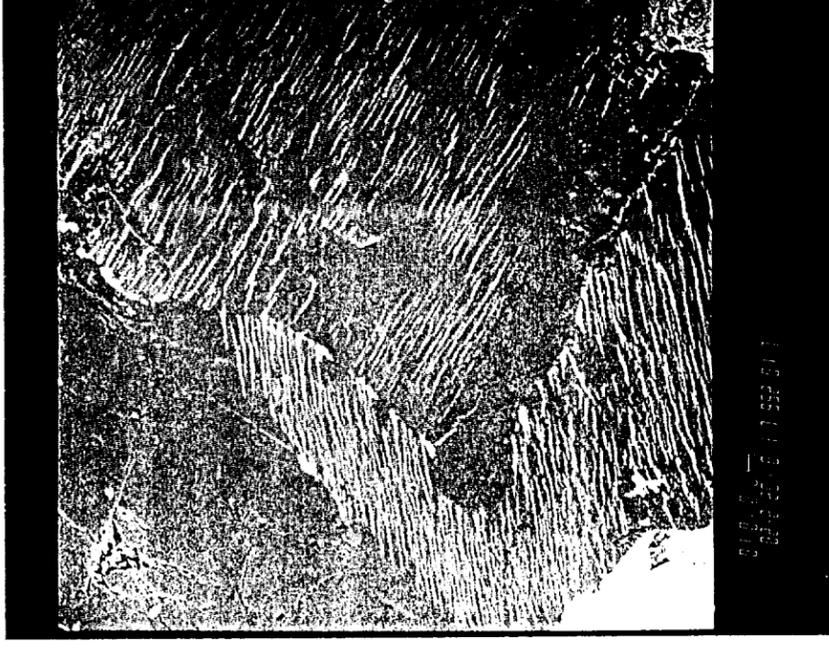
1c)



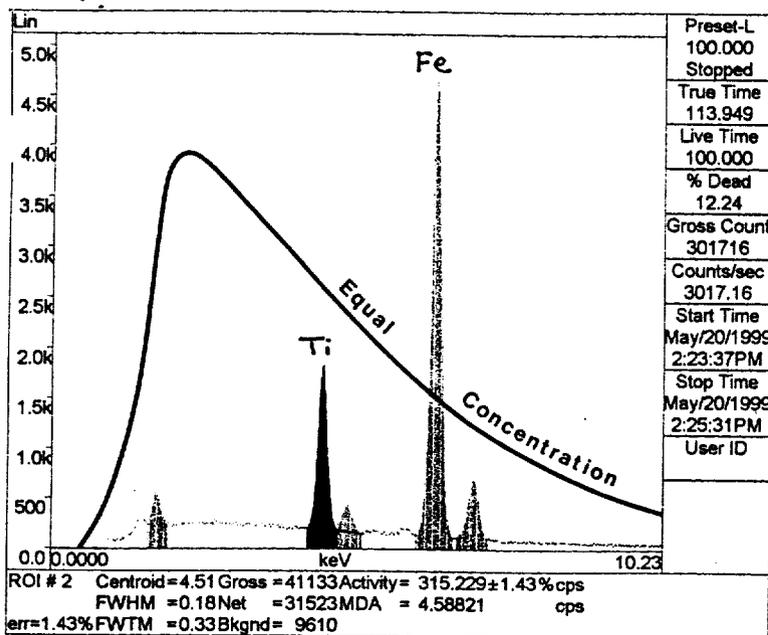
1d)



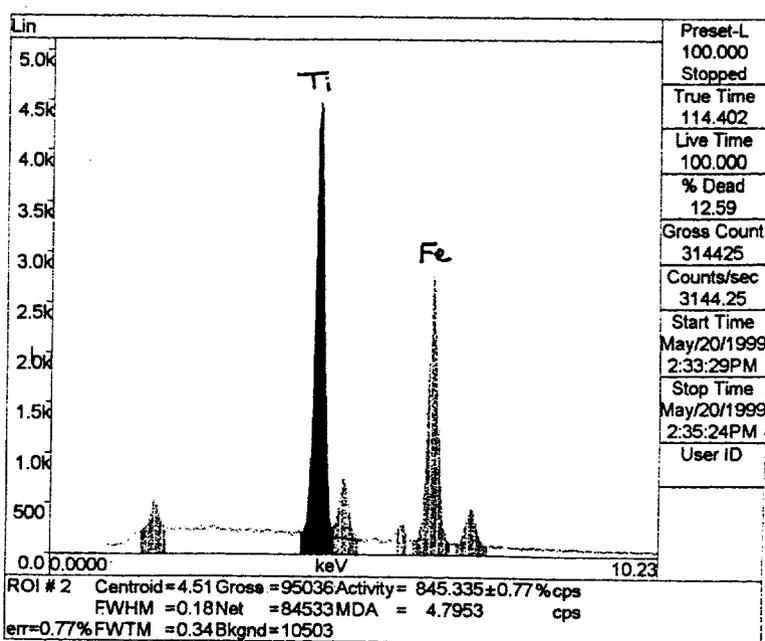
1e)



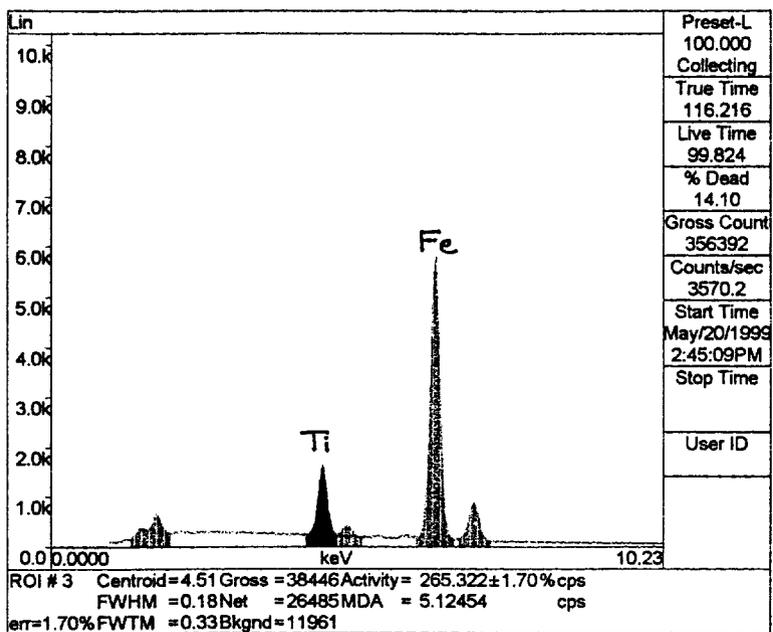
1f)



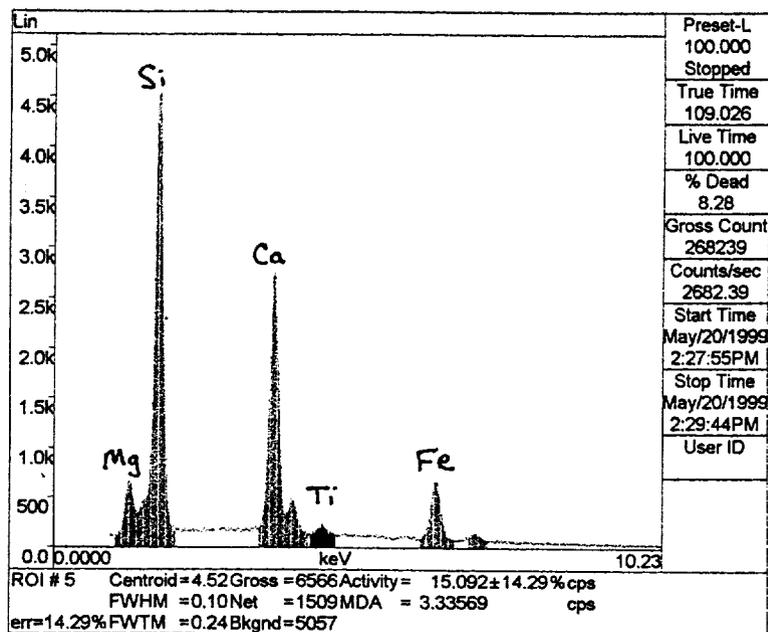
1a - Unexsolved titanomagnetite. TiO<sub>2</sub> content is approximately 15 percent.



1b - Ilmenite. TiO<sub>2</sub> content is approximately 55 percent.

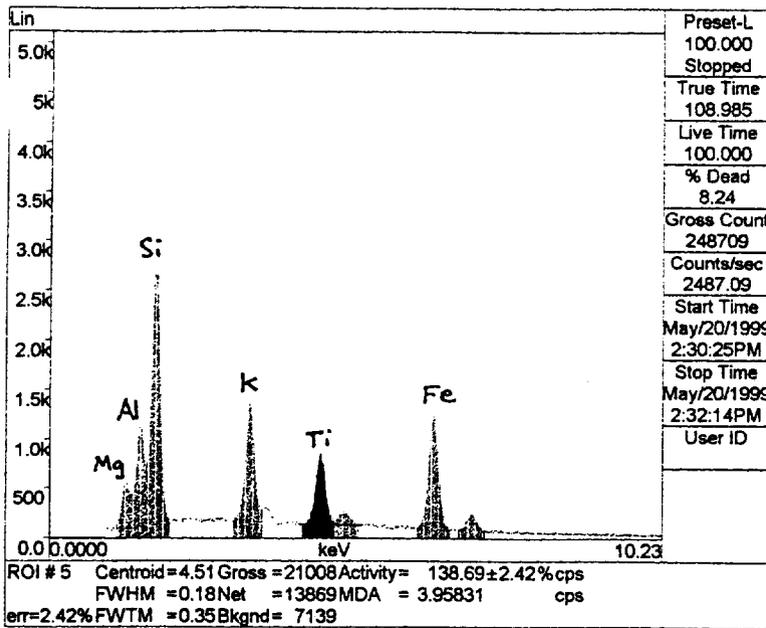


1c - Exsolved titanomagnetite. TiO<sub>2</sub> content is approximately 10 percent.

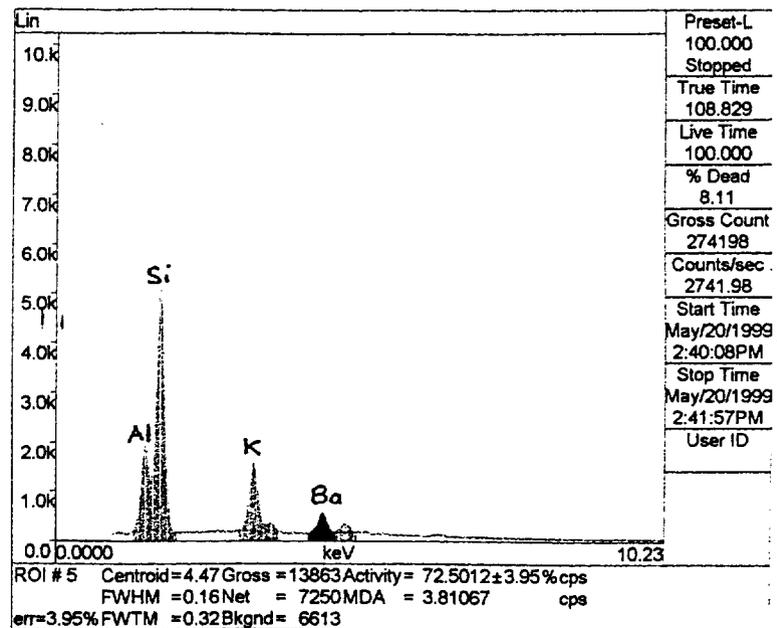


1d - Augite. TiO<sub>2</sub> content is approximately 1 percent.

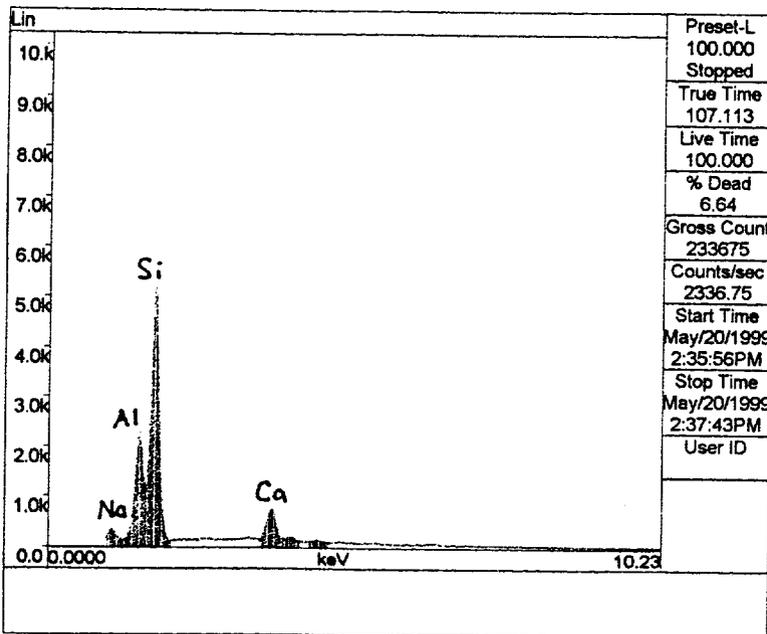
Figure 1 - EDS Analytical Spectra for Representative Mineral Grains in Gabbro from 130-140 Foot Interval, Hole 95-2. Peak heights for the same concentrations of different elements in any spectrum analyzed at the same magnification vary according to the bell curve line of Figure 1a. Peak heights for different spectra vary due to the different magnifications of analysis and the scale of the chart (5,000 versus 10,000 counts). Primary peaks for Fe and Ti are flanked by an unlabeled smaller secondary peak. Page 1 of 2.



1e - Blotite. TiO<sub>2</sub> content is approximately 5 percent.



1f - Hyalophane intergrowth in plagioclase. Ba content is approximately 5 percent.



1g - Plagioclase. Na:Ca ratio indicates an andesine composition.

re 1 - EDS Analytical Spectra for Representative Mineral Grains in Gabbro from 130-140 Foot Interval, Hole 95-2. Peak heights for the same concentrations of different elements in any spectrum analyzed at the same magnification vary according to the bell curve line of Figure 1a. Peak heights for different spectra vary due to the different magnifications of analysis and the scale of the chart (5,000 versus 10,000 counts). Primary peaks for Fe and Ti are flanked by an unlabeled smaller secondary peak. Page 2 of 2.

Mineral	% of Gabbro		Weight % TiO <sub>2</sub>	TiO <sub>2</sub> Contribution to Gabbro	
	Volume	Weight		Wt%	Proportion (%)
Plagioclase	50-60	45	0	0	0
Augite	30-35	30-35	1	0.3	9
Biotite	3-5	3-5	5	0.2	6
Titanomagnetite	8-10	13-15	15	2	57
Ilmenite*	1-2	2	55	1	28
Apatite	1-2	1-2	0	0	0
				3.5	100

\*Includes ilmenite exsolution lamellae in titanomagnetite.

Table 1 - Mineralogy of Gabbro Illustrating Mineralogical Distribution of TiO<sub>2</sub>.

CLIENT: OVERBURDEN DRILLING MGMT LTD  
REPORT: C99-60250.1 ( COMPLETE )

DATE RECEIVED: 10-FEB-99 DATE PRINTED: 2-MAR-99 PAGE 1 OF 3

PROJECT: NONE

SAMPLE NUMBER	ELEMENT UNITS	SiO2 PCT	Al2O3 PCT	Fe2O3* PCT	MnO PCT	MgO PCT	CaO PCT	Na2O PCT	K2O PCT	P2O5 PCT	LOI PCT	Total PCT	Ba PPM	Cr PPM	Sr PPM	
95-2-10-20		50.93	2.83	16.92	9.17	0.14	2.99	5.32	4.55	2.97	1.09	0.75	99.95	>10000	76	1220
95-2-20-30		51.40	2.76	17.44	8.46	0.11	2.62	4.54	4.75	2.61	1.18	1.22	99.34	>10000	52	887
95-2-30-40		51.42	2.64	17.94	8.31	0.13	2.92	5.52	4.69	2.62	1.14	0.54	100.35	>10000	52	1043
95-2-40-50		51.39	2.58	17.89	8.01	0.13	2.81	5.55	4.77	2.53	1.10	0.49	99.66	>10000	60	1197
95-2-50-60		50.54	2.89	16.66	9.33	0.15	3.16	6.24	4.72	2.30	1.21	0.68	100.04	>10000	53	1106
95-2-60-70		50.15	3.03	16.06	9.92	0.16	3.37	6.30	4.54	2.41	1.31	0.59	100.19	>10000	51	1048
95-2-70-80		50.10	2.94	16.31	9.35	0.16	3.17	6.21	4.80	2.44	1.26	0.54	99.64	>10000	39	1055
95-2-80-90		49.47	3.34	16.17	11.21	0.20	3.30	6.80	4.62	1.90	1.27	0.44	100.40	>10000	50	1049
95-2-90-100		44.94	3.75	13.14	15.14	0.27	4.94	10.36	3.48	0.90	1.29	0.44	99.17	4590	41	700
95-2-100-110		43.93	3.90	12.48	16.07	0.28	4.80	10.07	3.28	0.83	0.91	0.60	97.68	4590	45	657
95-2-110-120		46.44	3.80	12.63	15.37	0.28	4.93	10.18	3.67	0.98	0.97	0.25	99.97	3955	39	569
95-2-120-130		46.57	3.49	12.08	15.04	0.29	4.97	9.88	3.81	1.10	1.03	1.03	99.83	4655	38	573
95-2-130-140		45.89	3.67	11.96	16.22	0.30	4.91	9.85	3.65	1.03	1.08	1.27	100.36	4580	35	603
95-2-140-150		47.10	3.37	12.93	15.09	0.28	4.68	9.40	3.91	1.36	0.82	0.59	100.14	5448	47	629
95-2-150-160		46.62	3.20	13.48	14.13	0.26	4.74	9.86	3.83	1.22	0.80	0.93	99.69	5183	52	683
95-2-160-170		46.63	3.13	11.98	15.40	0.32	4.80	10.29	3.68	1.22	0.91	0.69	99.62	5135	57	575
95-2-170-180		47.63	3.06	12.39	15.40	0.32	3.91	9.11	4.10	1.66	1.25	0.74	100.46	8320	62	387
95-2-180-190		54.20	1.92	17.91	8.75	0.14	1.42	4.90	5.98	2.24	0.37	0.65	100.10	>10000	57	490
95-2-190-200		56.00	1.74	19.45	6.91	0.11	0.67	3.52	6.54	2.56	0.11	0.79	100.13	>10000	63	582
95-2-200-210		46.50	3.55	9.92	21.56	0.51	2.54	8.20	3.96	1.96	0.66	<.005	99.76	3643	90	241
95-2-210-220		35.97	5.66	4.99	32.21	0.70	3.75	11.90	1.93	0.74	1.60	<.005	99.55	588	67	205
95-2-220-230		44.03	5.30	13.32	15.66	0.25	5.13	10.13	3.30	0.87	0.28	0.44	99.01	2235	58	750
95-2-230-240		46.23	4.53	14.16	13.50	0.21	4.22	9.37	3.72	1.27	0.37	1.61	99.89	5995	44	995
95-2-240-250		44.85	5.04	12.68	16.22	0.31	5.00	9.69	3.42	1.09	0.41	0.49	99.77	4871	46	767
95-2-250-260		45.87	4.32	13.62	14.83	0.27	4.54	9.58	3.75	1.05	0.62	0.63	99.77	5817	62	871
95-2-260-270		45.00	4.80	13.07	16.23	0.29	5.04	10.19	3.37	0.78	0.33	0.34	99.90	3704	70	782
95-2-270-280		45.33	4.35	14.45	15.97	0.25	4.17	9.15	3.65	0.86	0.39	0.40	99.61	5265	54	1217
95-2-280-290		49.37	2.89	17.37	11.77	0.17	2.68	7.82	4.74	1.12	0.68	0.45	100.05	8440	62	1279
95-2-290-300		45.57	4.08	14.15	15.64	0.23	4.93	9.97	3.45	0.88	0.44	0.29	100.17	4452	57	810

Table 2 - Intertek Testing Services Whole Rock Analyses for Hole 95-2.

**OVERBURDEN DRILLING MANAGEMENT LIMITED**  
107-15 CAPELLA COURT, NEPEAN, ONTARIO, K2E 7X1  
TELEPHONE: (613) 226-1771/1774  
FAX NO.: (613) 226-8753  
EMAIL: odm@storm.ca

DATA TRANSMITTAL REPORT

DATE: 12-May-99

ATTENTION: **Mr. Lorne Kelsch**

CLIENT: **26 BT RESOURCE DEVELOPMENT CO. LTD.**  
MacLeod Place 1, Suite 200  
5920 MacLeod Trail S.W.  
Calgary, AB  
T2H 0K2

FAX NO.: (403) 212-0733

NO. OF PAGES: 5

PROJECT: Titanium 94-4 (2.5-15 ft) to 94-4 (95-100 ft)  
Mineralogy

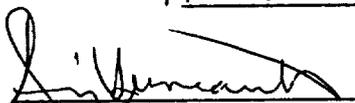
FILE NO: Ed Kruchkowski 26BT (95-2).wb3

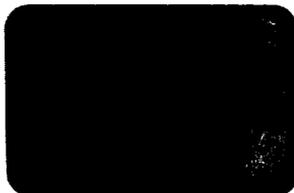
NO. OF SAMPLES: 10

THESE SAMPLES WERE PROCESSED FOR: Titanium-bearing minerals

SPECIFICATIONS: SUBMITTED BY CLIENT: 5-FOOT 1/4 NQ CORE SECTIONS.  
COMBINED INTO 10-FOOT SECTIONS AND CRUSHED TO <2.0 MM.  
PREPARED 0.18 MM TO 1.0 MM HEAVY MINERAL CONCENTRATE (S.G.>3.2)  
FROM 2 KG SPLIT OF CRUSHED PRODUCT.  
PARAMAGNETIC SEPARATION AND PICKING DONE ON 0.18 TO 0.25 MM  
FRACTION ONLY.  
ALL FRACTIONS ARE PRESENTLY STORED.

REMARKS: Note that for three samples the weight of material  
processed deviated from the standard 2.00 kg.  
This has no bearing on the mineralogical results.

  
Remy Huneault  
Laboratory Manager



FAXED

## OVERBURDEN DRILLING MANAGEMENT LIMITED

PROJECT:  
TOTAL OF: 10 SAMPLES  
FILENAME: Ed Kruchkowski 26BT (95-2).wb3

Sample Number	Weight (kg)		Weight (g)													
	Total Rec'd and Crushed	Processed Split	Sieve Fractions			0.18 to 1.0 mm M.I. Separation (S.G. 3.20)										
			1.0 to 2.0 mm	0.18 to 1.0 mm	-0.18 mm	Total	M.I. Lights	FERROMAGNETIC HMC				NONFERROMAGNETIC HMC				
								Total Mag	-0.18 mm (wash)	0.18 to 0.25 mm	0.25 to 1.0 mm	Total Non Mag	-0.18 mm (wash)	0.18 to 0.25 mm	0.25 to 1.0 mm	
Titanium Mineralogy				*		*										
94-4 (2.5-15 ft)	3.50	2.50	415.6	915.8	1168.6	859.5	379.0	173.0	14.1	19.4	139.5	307.5	30.3	68.8	208.4	
94-4(15-25 ft)	4.30	2.40	424.9	793.3	1181.8	744.8	369.6	125.1	5.3	16.2	103.6	250.1	19.3	54.4	176.4	
94-4(25-35 ft)	4.70	2.00	417.2	662.7	920.1	615.6	311.3	123.2	5.2	16.1	101.9	181.1	15.6	42.7	122.8	
94-4(35-45 ft)	4.60	2.00	379.3	688.2	932.5	659.7	344.7	98.6	4.0	9.0	85.6	216.4	11.0	43.9	161.5	
94-4(45-55 ft)	5.10	2.00	318.5	666.0	1015.5	635.1	161.4	166.3	8.6	23.2	134.5	307.4	25.3	73.8	208.3	
94-4(55-65 ft)	5.45	2.00	330.9	665.2	1003.9	637.6	239.8	103.8	5.7	12.3	85.8	294.0	22.3	62.1	209.6	
94-4(65-75 ft)	5.15	2.00	353.1	671.5	975.4	626.7	140.6	202.2	9.2	16.5	176.5	283.9	23.7	72.2	188.0	
94-4(75-85 ft)	5.95	1.50	257.7	522.0	720.3	493.7	113.1	145.0	9.8	10.9	124.3	235.6	21.6	57.8	156.2	
94-4(85-95 ft)	4.90	2.00	354.9	667.2	977.9	634.5	209.1	121.4	6.7	10.1	104.6	304.0	22.9	66.7	214.4	
94-4(95-100 ft)	2.85	2.00	303.8	647.8	1048.4	619.4	236.6	124.1	6.0	15.5	102.6	258.7	25.9	61.1	171.7	

\* After initial dry sieving, weight of 0.18-1.0 mm fraction is further reduced 5-10 percent by oxalic acid wash to remove adhering -0.18 mm crusher dust prior to final M.I. separation.

Table 1 - Sample Processing Weights.

## OVERBURDEN DRILLING MANAGEMENT LIMITED

FILENAME: Ed Kruchkowski 26BT (95-2).wb3  
 PROJECT: Titanium Mineralogy  
 TOTAL OF 10 SAMPLES

SAMPLE NO.	FRACTION	SEPARATION AMPERAGE	MINERALOGY (VOLUME PERCENT)											REMARKS:
			MT	ILM	RUT	TT	CPX	OL	BT	EP	AP	GTH	PY	
94-4 (2.5-15 ft)	Ferromagnetic	NA	89-90	2	0	0	5-10	1	RTR	0	3-5	0	0	SEM checks from 0.18-0.25 mm fraction: 4 representative Fe-oxide candidates = 4 titanomagnetite (<15 wt% TiO <sub>2</sub> ). SEM checks from 0.18-0.25 mm fraction: 2 yellow olivine versus apatite candidates = 2 fayalite olivine. 3% hornblende. Rare trace of hornblende.
	Paramagnetic	<1.0	0	15-20	0	0	70-75	10-15	RTR	0	3-5	0	0	
	Nonmagnetic	>1.0	0	RTR	0	0	40-50	0	RTR	0	50-60	0	RTR	
94-4(15-25 ft)	Ferromagnetic	NA	50-60	2	0	0	30-40	0.5	RTR	0	3-5	0	0	3% hornblende. Rare trace of hornblende.
	Paramagnetic	<1.0	0	10-15	0	0	70-75	10-15	1-2	0	5	0	0	
	Nonmagnetic	>1.0	0	TR	0	0	40-50	0	TR	0	50-60	0	RTR	
94-4(25-35 ft)	Ferromagnetic	NA	75-80	3	0	0	15-20	1-2	TR	0	2-3	0	0	1-2% hornblende. 1% hornblende.
	Paramagnetic	<1.0	0	5-10	0	0	70-75	15	RTR	0	5	0	0	
	Nonmagnetic	>1.0	0	TR	0	0	45-55	0	RTR	0	45-55	0	1	
94-4(35-45 ft)	Ferromagnetic	NA	80-85	2	0	0	5-10	5	RTR	0	5	0	0	3-5% hornblende. 1-2% hornblende.
	Paramagnetic	<1.0	0	10	0	0	60-65	20-30	0.5	0	3-5	0	0	
	Nonmagnetic	>1.0	0	0.5	0	0	45-55	0	0.5	0	45-55	0	RTR	
94-4(45-55 ft)	Ferromagnetic	NA	80-90	1-2	0	0	5-10	5-10	TR	0	3-5	0	0	1-2% hornblende.
	Paramagnetic	<1.0	0	5-10	0	0	70-75	20	2	0	3	0	0	
	Nonmagnetic	>1.0	0	0	0	0	20	1	0.5	0	70-80	0	RTR	
94-4(55-65 ft)	Ferromagnetic	NA	85-90	1	0	0	5	5	TR	0	3-5	0	0	0.5% hornblende.
	Paramagnetic	<1.0	0	10	0	0	55-65	20-30	2	0	3	0	0	
	Nonmagnetic	>1.0	0	0	0	0	20-25	1	TR	0	70-80	0	0	
94-4(65-75 ft)	Ferromagnetic	NA	70-75	1	0	0	20	3	TR	0	3	0	0	Trace of hornblende. 2% hornblende. 1% hornblende.
	Paramagnetic	<1.0	0	10	0	0	70-75	10-20	3-5	0	3	0	0	
	Nonmagnetic	>1.0	0	RTR	0	0	30-40	TR	1	0	60-70	0	0	
94-4(75-85 ft)	Ferromagnetic	NA	60-65	1	0	0	20	10	RTR	0	5	0	0	SEM checks from 0.18-0.25 mm fraction: 4 representative Fe-oxide candidates = 4 titanomagnetite (10-15 wt% TiO <sub>2</sub> ). SEM checks from 0.18-0.25 mm fraction: 2 representative brown pyroxene candidates = 2 diopside-hedenbergite (<1 wt% TiO <sub>2</sub> ). 0.5% hornblende.
	Paramagnetic	<1.0	0	10	0	0	45-50	30-40	RTR	0	3-5	0	0	
	Nonmagnetic	>1.0	0	0	0	0	45-50	1	1	0	45-50	0	0	
94-4(85-95 ft)	Ferromagnetic	NA	60-65	1	0	0	10-20	10	RTR	0	10	0	0	0.5% hornblende.
	Paramagnetic	<1.0	0	15-20	0	0	40-50	25-35	TR	0	5	0	0	
	Nonmagnetic	>1.0	0	0	0	0	45-50	1	TR	0	45-50	0	0	
94-4(95-100 ft)	Ferromagnetic	NA	60-65	2	0	0	15-25	10	RTR	0	5-10	0	0	Trace of hornblende.
	Paramagnetic	<1.0	0	5	0	0	60-65	30	RTR	0	2	0	0	
	Nonmagnetic	>1.0	0	0	0	0	30-40	1	TR	0	60-70	0	0	

Table 2 - Mineralogy of the 0.18-0.25 mm Heavy Mineral Fraction. Heavy lithic grains, where present, are classified according to their dominant contained heavy mineral species.

**OVERBURDEN DRILLING MANAGEMENT LIMITED**

SAMPLE NUMBER	Weight (g) of Heavy Minerals in 0.18 to 0.25 mm Fraction			
	TOTAL	FERROMAGNETIC	PARAMAGNETIC (<1.0 amp)	NONMAGNETIC (>1.0 amp)
94-4 (2.5-15 ft)	88.2	19.4	64.9	3.9
94-4(15-25 ft)	70.6	16.2	52.1	2.3
94-4(25-35 ft)	58.8	16.1	40.9	1.8
94-4(35-45 ft)	52.9	9.0	41.9	2.0
94-4(45-55 ft)	97.0	23.2	69.4	4.4
94-4(55-65 ft)	74.4	12.3	55.9	6.2
94-4(65-75 ft)	88.7	16.5	66.9	5.3
94-4(75-85 ft)	68.7	10.9	54.3	3.5
94-4(85-95 ft)	76.8	10.1	61.1	5.6
94-4(95-100 ft)	76.6	15.5	56.3	4.8

Table 3 - Magnetic Susceptibility of Heavy Minerals in 0.18 to 0.25 mm Fraction. No paramagnetic separation done on other HMC fractions.



PROJECT: NONE

CLIENT: OVERBURDEN DRILLING MGMT LTD  
REPORT: C99-60682.1 ( COMPLETE )

DATE RECEIVED: 31-MAR-99

DATE PRINTED: 20-APR-99 PAGE 1 OF 5

SAMPLE NUMBER	ELEMENT UNITS	SiO2 PCT	TiO2 PCT	Al2O3 PCT	Fe2O3* PCT	MnO PCT	MgO PCT	CaO PCT	Na2O PCT	K2O PCT	P2O5 PCT	LOI PCT	Total PCT	Ba PPM	Cr PPM	Sr PPM
94-4/2.5-15		41.07	5.76	11.74	18.60	0.31	5.98	10.91	2.75	0.27	2.50	0.20	100.36	1743	76	932
94-4/15-25		41.97	5.00	13.29	16.43	0.28	5.53	10.85	3.07	0.34	2.34	0.94	100.35	2063	51	1037
94-4/25-35		41.33	5.26	13.03	17.51	0.29	5.70	10.87	2.95	0.30	2.35	1.03	100.92	2010	52	1006
94-4/35-45		42.00	5.07	13.33	16.95	0.29	5.55	10.60	3.17	0.34	2.22	0.54	100.43	2412	55	1037
94-4/45-55		34.92	7.14	8.27	25.55	0.41	7.77	11.05	1.98	0.23	2.95	<0.05	100.49	1447	57	666
94-4/55-65		39.19	5.96	10.94	20.55	0.34	6.46	10.80	2.73	0.34	2.60	<0.05	100.22	2155	52	862
94-4/65-75		35.33	7.15	8.06	25.46	0.41	7.99	10.99	1.97	0.26	2.90	<0.05	100.76	1602	38	642
94-4/75-85		34.75	6.94	8.14	25.16	0.42	7.75	10.74	1.95	0.21	2.84	<0.05	99.14	1609	59	659
94-4/85-95		39.14	5.85	10.62	21.49	0.39	6.90	10.56	2.65	0.30	2.41	<0.05	100.62	2232	53	837
94-4/95-100		40.23	5.46	11.49	19.94	0.36	6.35	10.43	2.89	0.32	2.33	<0.05	100.19	2477	53	893
94-6/5-15		47.48	3.96	12.96	15.64	0.14	5.66	8.62	3.20	0.45	0.26	2.35	100.81	128	41	721
94-6/15-25		48.54	3.59	14.13	14.86	0.16	5.21	7.57	3.33	0.53	0.24	2.55	100.79	139	63	756
94-6/25-35		48.41	3.79	13.00	14.90	0.16	5.46	8.80	3.01	0.47	0.23	2.42	100.75	131	64	749
94-6/35-45		39.98	4.93	12.72	18.92	0.20	7.04	11.33	1.65	0.56	0.32	2.58	100.32	158	48	778
94-6/45-55		39.86	4.92	12.53	18.94	0.20	7.12	12.21	1.56	0.44	0.32	2.33	100.54	152	53	945
94-6/55-65		39.13	5.21	11.89	19.60	0.21	7.40	11.84	1.46	0.37	0.32	2.65	100.18	128	47	842
94-6/65-75		39.23	5.16	12.23	19.33	0.20	7.28	11.90	1.49	0.43	0.30	2.67	100.33	151	36	881
94-6/75-85		39.25	5.09	12.12	19.15	0.20	7.35	12.42	1.38	0.38	0.38	2.79	100.62	133	29	1028
94-6/85-95		38.70	5.34	11.44	20.81	0.22	7.74	11.66	1.44	0.38	0.32	2.24	100.37	147	34	626
94-6/95-100		38.75	5.60	11.41	20.98	0.22	7.82	11.80	1.47	0.34	0.31	1.98	100.77	143	24	561

Table 4 - Intertek Testing Services Whole Rock Analyses of Test Samples.



**OVERBURDEN DRILLING MANAGEMENT LIMITED**

May 13, 1999

Mr. Lorne Kelsch  
26 BT RESOURCE DEVELOPMENT CO. LTD.  
MacLeod Place 1, Suite 200  
5920 MacLeod Trail S.W.  
Calgary, Alberta T2E 0K2

fax: (403) 212-0733

Dear Mr. Kelsch:

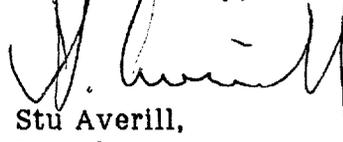
Re: Titanium-Bearing Mineral Species in Gabbro, British Columbia

Attached find our laboratory data for the third drill hole, No. 94-6, covered in our most recent tests. As before, the principal Ti-bearing oxide is titanomagnetite; ilmenite is much less common and rutile and titanite are absent.

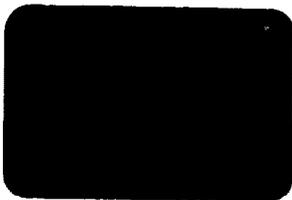
Ed Kruschowski has reported apparent discrepancies between our test results and Rio Tinto's. We find this curious as we actually do a lot of Ti-mineral work for Rio; however we are addressing your concerns by examining polished mounts of the coarsest crusher rejects from a few samples by scanning electron microscope (SEM). Our main objective is to show the type of titanomagnetite present (*i.e.* ilmenite and magnetite intergrowths versus ilmenite exsolution lamellae in magnetite versus chemical substitution Ti for Fe in magnetite).

I hope these observations are helpful. Please call me if you have any questions.

Yours sincerely,



Stu Averill,  
President



**FAXED**

**Mines  
Are  
Where WE  
Find Them.**

**OVERBURDEN DRILLING MANAGEMENT LIMITED**  
107-15 CAPELLA COURT, NEPEAN, ONTARIO, K2E 7X1  
TELEPHONE: (613) 226-1771/1774  
FAX NO.: (613) 226-8753  
EMAIL: odm@storm.ca

DATA TRANSMITTAL REPORT

DATE: 12-May-99

ATTENTION: **Mr. Lorne Kelsch**

CLIENT: **26 BT RESOURCE DEVELOPMENT CO. LTD.**  
MacLeod Place 1, Suite 200  
5920 MacLeod Trail S.W.  
Calgary, AB  
T2H 0K2

FAX NO.: (403) 212-0733

NO. OF PAGES: 5

PROJECT: Titanium 94-6 (5-15 ft) to 94-6 (95-100 ft)  
Mineralogy

FILE NO: Ed Kruchkowski 26BT (95-2).wb3

NO. OF SAMPLES: 10

THESE SAMPLES WERE PROCESSED FOR: Titanium-bearing minerals

SPECIFICATIONS: SUBMITTED BY CLIENT: 5-FOOT 1/4 NQ CORE SECTIONS.  
COMBINED INTO 10-FOOT SECTIONS AND CRUSHED TO <2.0 MM.  
PREPARED 0.18 MM TO 1.0 MM HEAVY MINERAL CONCENTRATE (S.G.>3.2)  
FROM 2 KG SPLIT OF CRUSHED PRODUCT.  
PARAMAGNETIC SEPARATION AND PICKING DONE ON 0.18 TO 0.25 MM  
FRACTION ONLY.  
ALL FRACTIONS ARE PRESENTLY STORED.

REMARKS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

  
\_\_\_\_\_  
Remy Huneault  
Laboratory Manager



## OVERBURDEN DRILLING MANAGEMENT LIMITED

PROJECT:  
TOTAL OF: 10 SAMPLES  
FILENAME: Ed Kruchkowski 26BT (95-2).wb3

Sample Number	Weight (kg)		Weight (g)															
	Total Rec'd and Crushed	Processed Split	Sieve Fractions			0.18 to 1.0 mm M.I. Separation (S.G. 3.20)												
			1.0 to 2.0 mm	0.18 to 1.0 mm	-0.18 mm	Total	M.I. Lights	FERROMAGNETIC HMC				NONFERROMAGNETIC HMC						
								Total Mag	-0.18 mm (wash)	0.18 to 0.25 mm	0.25 to 1.0 mm	Total Non Mag	-0.18 mm (wash)	0.18 to 0.25 mm	0.25 to 1.0 mm			
Titanium Mineralogy				*		*												
94-6 (5-15 ft)	3.95	2.00	508.9	671.7	819.4	557.3	266.3	63.5	3.2	9.4	50.9	227.5	26.1	44.2	157.2			
94-6(15-25 ft)	3.50	2.00	493.6	714.9	791.5	602.1	397.5	39.3	2.2	5.2	31.9	165.3	20.3	33.0	112.0			
94-6(25-35 ft)	4.65	2.00	471.0	703.9	825.1	597.7	338.0	55.9	3.4	7.2	45.3	203.8	27.3	43.2	133.3			
94-6(35-45 ft)	4.35	2.00	531.9	696.8	771.3	594.0	203.2	88.2	3.6	11.4	73.2	302.6	30.0	64.0	208.6			
94-6(45-55 ft)	4.60	2.00	589.4	629.4	781.2	414.0	108.2	76.2	5.1	12.1	59.0	229.6	31.4	46.0	152.2			
94-6(55-65 ft)	4.85	2.00	573.1	689.6	737.3	552.4	157.4	99.3	5.3	14.1	79.9	295.7	31.2	60.4	204.1			
94-6(65-75 ft)	3.65	2.00	677.8	628.0	694.2	409.7	139.8	74.9	5.2	11.5	58.2	195.0	31.4	39.8	123.8			
94-6(75-85 ft)	4.95	2.00	608.7	703.7	687.6	538.0	147.8	86.2	3.8	10.8	71.6	304.0	30.1	60.9	213.0			
94-6(85-95 ft)	4.60	2.00	642.2	669.8	688.0	435.2	128.6	117.2	7.3	20.1	89.8	189.4	31.3	40.8	117.3			
94-6(95-100 ft)	2.65	2.00	511.2	713.8	775.0	647.8	167.4	161.9	4.3	19.7	137.9	318.5	23.8	67.1	227.6			

\* After initial dry sieving, weight of 0.18-1.0 mm fraction is further reduced 10-20 percent by oxalic acid wash to remove adhering -0.18 mm crusher dust prior to final M.I. separation.

Table 1 - Sample Processing Weights.

FILENAME: Ed Kruchkowski 26BT (95-2).wb3  
 PROJECT: Titanium Mineralogy  
 TOTAL OF 10 SAMPLES

SAMPLE NO.	FRACTION	SEPARATION AMPERAGE	MINERALOGY (VOLUME PERCENT)											REMARKS:
			MT	ILM	RUT	TT	CPX	OL	BT	EP	AP	GTH	PY	
94-6 (5-15 ft)	Ferromagnetic	NA	85-90	2	0	0	5-10	0	0	2	0	0	0	SEM checks from 0.18-0.25 mm fraction: 4 representative Fe-oxide candidates = 4 intergrowths of titanomagnetite, titanite and augite.
	Paramagnetic	<1.0	0	2-3	0	0	50-60	0	0	10-15	0	0	0	SEM checks from 0.18-0.25 mm fraction: 2 black ilmenite candidates = 2 ilmenite. 20-30% hornblende.
	Nonmagnetic	>1.0	0	0	0	0	50-60	0	0	30-40	0	0	0	SEM checks from 0.18-0.25 mm fraction: 2 brown clinopyroxene versus titanite candidates = 2 augite (-1 wt% TiO <sub>2</sub> ). 5% hornblende.
94-6(15-25 ft)	Ferromagnetic	NA	85-95	2	0	0	5-10	0	0	TR	0	0	0	
	Paramagnetic	<1.0	0	3	0	0	70-80	0	0	15-20	0	0	0	5-10% hornblende.
	Nonmagnetic	>1.0	0	0	0	0	40-50	0	0	40-50	0	0	0	3-5% hornblende.
94-6(25-35 ft)	Ferromagnetic	NA	75-85	1	0	0	10-20	0	0	1	0	0	0	
	Paramagnetic	<1.0	0	1	0	0	60-70	0	0	20-30	0	0	0	5-10% hornblende.
	Nonmagnetic	>1.0	0	0	0	0	60-65	0	0	35-40	0	0	0	5% hornblende.
94-6(35-45 ft)	Ferromagnetic	NA	80-90	TR	0	0	10-20	0	0	1	0	0	0	
	Paramagnetic	<1.0	0	1-2	0	0	60-70	0	0	10-15	0	0	0	10-20% hornblende.
	Nonmagnetic	>1.0	0	0	0	0	60-70	0	RTR	30-40	0	0	0	5% hornblende.
94-6(45-55 ft)	Ferromagnetic	NA	85-95	2	0	0	5-15	0	0	RTR	0	0	0	SEM checks from 0.18-0.25 mm fraction: 4 representative Fe-oxide candidates = 4 titanomagnetite (10-20 wt% TiO <sub>2</sub> ).
	Paramagnetic	<1.0	0	1	0	0	45-55	0	0	40-50	0	0	0	5-10% hornblende.
	Nonmagnetic	>1.0	0	0	0	0	65-75	0	0	20-30	TR	0	0	5% hornblende.
94-6(55-65 ft)	Ferromagnetic	NA	80-90	1	0	0	10-20	0	0	RTR	0	0	0	
	Paramagnetic	<1.0	0	1	0	0	55-65	0	0	20-30	0	0	0	10-20% hornblende.
	Nonmagnetic	>1.0	0	0	0	0	75-80	0	0	20	0	0	0	2% hornblende.
94-6(65-75 ft)	Ferromagnetic	NA	90-95	2	0	0	5-10	0	0	TR	0	0	0	
	Paramagnetic	<1.0	0	2	0	0	60-70	0	0	20-30	0	0	0	10-20% hornblende.
	Nonmagnetic	>1.0	0	0	0	0	60-70	0	0	30-40	TR	0	0	1-2% hornblende.
94-6(75-85 ft)	Ferromagnetic	NA	80-90	2	0	0	10-15	0	0	RTR	0	0	0	
	Paramagnetic	<1.0	0	2	0	0	60-70	0	0	15-25	0	0	0	10-20% hornblende.
	Nonmagnetic	>1.0	0	0	0	0	60-70	0	0	20-30	TR	0	0	3-5% hornblende.
94-6(85-95 ft)	Ferromagnetic	NA	80-90	2	0	0	10-20	0	0	0.5	0	0	0	
	Paramagnetic	<1.0	0	3-5	0	0	85-90	0	0	5	0	0	0	5-10% hornblende.
	Nonmagnetic	>1.0	0	0	0	0	95-97	0	0	3-5	TR	0	RTR	Trace hornblende.
94-6(95-100 ft)	Ferromagnetic	NA	85-90	3	0	0	10-15	0	0	RTR	0	0	0	
	Paramagnetic	<1.0	0	RTR	0	0	80-90	0	0	2	0	0	0	10-20% hornblende.
	Nonmagnetic	>1.0	0	0	0	0	95-100	0	0	1	RTR	0	0	Trace hornblende.

Table 2 - Mineralogy of the 0.18-0.25 mm Heavy Mineral Fraction. Heavy lithic grains, where present, are classified according to their dominant contained heavy mineral species.

## OVERBURDEN DRILLING MANAGEMENT LIMITED

SAMPLE NUMBER	Weight (g) of Heavy Minerals in 0.18 to 0.25 mm Fraction			
	TOTAL	FERROMAGNETIC	PARAMAGNETIC (<1.0 amp)	NONMAGNETIC (>1.0 amp)
94-6 (5-15 ft)	53.6	9.4	42.0	2.2
94-6(15-25 ft)	38.2	5.2	30.3	2.7
94-6(25-35 ft)	50.4	7.2	40.6	2.6
94-6(35-45 ft)	75.4	11.4	60.7	3.3
94-6(45-55 ft)	58.1	12.1	43.2	2.8
94-6(55-65 ft)	74.5	14.1	58.0	2.4
94-6(65-75 ft)	51.3	11.5	37.1	2.7
94-6(75-85 ft)	71.7	10.8	57.9	3.0
94-6(85-95 ft)	60.9	20.1	39.5	1.3
94-6(95-100 ft)	86.8	19.7	65.2	1.9

Table 3 - Magnetic Susceptibility of Heavy Minerals in 0.18 to 0.25 mm Fraction. No paramagnetic separation done on other HMC fractions.



# Intertek Testing Services

## Chimitec Bondar Clegg

# Rapport Lab Geochimie

## Geochemical Lab Report

CLIENT: OVERBURDEN DRILLING MGMT LTD  
 REPORT: C99-60682.1 ( COMPLETE )

DATE RECEIVED: 31-MAR-99 DATE PRINTED: 20-APR-99 PAGE 1 OF 5 PROJECT: NONE

SAMPLE NUMBER	ELEMENT UNITS	SiO2 PCT	TI02 PCT	Al2O3 PCT	Fe2O3* PCT	MnO PCT	MgO PCT	CaO PCT	Na2O PCT	K2O PCT	P2O5 PCT	LOI PCT	Total PCT	Ba PPM	Cr PPM	Sr PPM
94-4/2.5-15		41.07	5.76	11.74	18.60	0.31	5.98	10.91	2.75	0.27	2.50	0.20	100.36	1743	76	932
94-4/15-25		41.97	5.00	13.29	16.43	0.28	5.53	10.85	3.07	0.34	2.34	0.94	100.35	2063	51	1037
94-4/25-35		41.33	5.26	13.03	17.51	0.29	5.70	10.87	2.95	0.30	2.35	1.03	100.92	2010	52	1006
94-4/35-45		42.00	5.07	13.33	16.95	0.29	5.55	10.60	3.17	0.34	2.22	0.54	100.43	2412	55	1037
94-4/45-55		34.92	7.16	8.27	25.55	0.41	7.77	11.05	1.98	0.23	2.95	-0.05	100.49	1447	57	666
94-4/55-65		39.19	5.96	10.94	20.55	0.34	6.46	10.80	2.73	0.34	2.60	-0.05	100.22	2155	52	862
94-4/65-75		35.33	7.15	8.06	25.46	0.41	7.99	10.99	1.97	0.26	2.90	-0.05	100.76	1602	38	642
94-4/75-85		34.75	6.94	8.14	25.16	0.42	7.75	10.74	1.95	0.21	2.84	-0.05	99.14	1609	59	659
94-4/85-95		39.14	5.85	10.62	21.49	0.39	6.90	10.56	2.45	0.30	2.41	-0.05	100.62	2232	53	837
94-4/95-100		40.23	5.46	11.49	19.94	0.36	6.35	10.43	2.89	0.32	2.33	-0.05	100.15	2477	53	893
94-6/5-15		47.48	3.96	12.96	15.64	0.14	5.66	8.62	3.20	0.45	0.26	2.35	100.81	128	41	721
94-6/15-25		48.54	3.59	14.13	14.86	0.16	5.21	7.57	3.33	0.53	0.24	2.55	100.79	139	43	756
94-6/25-35		48.41	3.79	13.00	14.90	0.16	5.46	8.80	3.01	0.47	0.23	2.42	100.75	131	64	749
94-6/35-45		39.98	4.93	12.72	18.92	0.20	7.04	11.33	1.45	0.56	0.32	2.58	100.32	158	48	778
94-6/45-55		39.86	4.92	12.53	18.94	0.20	7.12	12.21	1.56	0.44	0.32	2.33	100.54	152	53	945
94-6/55-65		39.13	5.21	11.89	19.60	0.21	7.40	11.84	1.46	0.37	0.32	2.65	100.18	128	47	842
94-6/65-75		39.23	5.16	12.23	19.33	0.20	7.28	11.90	1.49	0.43	0.30	2.67	100.33	151	36	881
94-6/75-85		39.25	5.09	12.12	19.15	0.20	7.35	12.42	1.38	0.38	0.38	2.79	100.62	133	29	1028
94-6/85-95		38.70	5.34	11.44	20.81	0.22	7.74	11.66	1.44	0.38	0.32	2.24	100.37	147	34	626
94-6/95-100		38.75	5.60	11.41	20.98	0.22	7.82	11.80	1.47	0.34	0.31	1.98	100.77	143	24	561

Table 4 - Intertek Testing Services Whole Rock Analyses of Test Samples.



**OVERBURDEN DRILLING MANAGEMENT LIMITED**

May 10, 1999

Mr. Lorne Kelsch  
26 BT RESOURCE DEVELOPMENT CO. LTD.  
MacLeod Place 1, Suite 200  
5920 MacLeod Trail S.W.  
Calgary, Alberta T2E 0K2

fax: (403) 212-0733

Dear Mr. Kelsch:

Re: Titanium Mineralogy of Test Samples from DDH 95-2, British Columbia

Attached in data five tables find our test results from the eighteen upper 10-foot core intervals in the above diamond drill hole.

As in the nine lower 10-foot intervals reported on April 16, 1999 and in our initial tests on Holes 99-4 and 96-1 reported on December 10 and 18, 1998, the principal Ti-bearing oxide is titanomagnetite. Unlike the earlier samples, some samples of the present batch, notably in the interval from 10 to 80 feet, are enriched in biotite which is also Ti-bearing (~5% TiO<sub>2</sub>). Only a small portion of this biotite is concentrated in heavy mineral fraction with the Ti-oxides; therefore we have added a table (No. 5) showing its abundance in the original drill core. The maximum concentration is 10-15 percent which would contribute about 0.5 percent or 1/6 of the 3 percent total average TiO<sub>2</sub> content of the rock.

I hope these observations are helpful. Please call me if you have any questions.

Yours sincerely,

Stu Averill,  
President



**FAXED**

**Mines  
Are  
Where WE  
Find Them.**

OVERBURDEN DRILLING MANAGEMENT LIMITED  
107-15 CAPELLA COURT, NEPEAN, ONTARIO, K2E 7X1  
TELEPHONE: (613) 226-1771/1774  
FAX NO.: (613) 226-8753  
EMAIL: odm@storm.ca

DATA TRANSMITTAL REPORT

1.1

DATE: 10-May-99

ATTENTION: Mr. Lorne Kelsch

CLIENT: 26 BT RESOURCE DEVELOPMENT CO. LTD.  
MacLeoad Place 1, Suite 200  
5920 MacLeoad Trail S.W.  
Calgary, AB  
T2H 0K2

FAX NO.: (403) 212-0733

NO. OF PAGES:

PROJECT: Titanium 95-2 (10-20) to 95-2 (200-210)  
Mineralogy

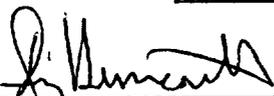
FILE NO: Ed Kruchkowski 26BT (95-2).wb3

NO. OF SAMPLES: 18

THESE SAMPLES WERE PROCESSED FOR: Titanium-bearing minerals

SPECIFICATIONS: SUBMITTED BY CLIENT: 5-FOOT 1/4 NQ CORE SECTIONS.  
COMBINED INTO 10-FOOT SECTIONS AND CRUSHED TO <2.0 MM.  
PREPARED 0.18 MM TO 1.0 MM HEAVY MINERAL CONCENTRATE (S.G.>3.2)  
FROM 2 KG SPLIT OF CRUSHED PRODUCT.  
PARAMAGNETIC SEPARATION AND PICKING DONE ON 0.18 TO 0.25 MM  
FRACTION ONLY.  
ALL FRACTIONS ARE PRESENTLY STORED.

REMARKS: Hole 94-4 is now completed and data will follow  
soon.



Remy Huneault  
Laboratory Manager

## OVERBURDEN DRILLING MANAGEMENT LIMITED

PROJECT:  
TOTAL OF: 18 SAMPLES  
FILENAME: Ed Kruchkowski 26BT (95-2).wb3

Sample Number	Weight (kg)		Weight (g)															
	Total Rec'd and Crushed	Processed Split	Sieve Fractions			0.18 to 1.0 mm M.I. Separation (S.G. 3.20)												
			1.0 to 2.0 mm	0.18 to 1.0 mm	-0.18 mm	Total	M.I. Lights	FERROMAGNETIC HMC				NONFERROMAGNETIC HMC						
								Total Mag	-0.18 mm (wash)	0.18 to 0.25 mm	0.25 to 1.0 mm	Total Non Mag	-0.18 mm (wash)	0.18 to 0.25 mm	0.25 to 1.0 mm			
Titanium Mineralogy				*		*												
95-2 (10-20 ft)	2.45	2.00	527.8	674.3	797.9	558.9	452.5	31.1	3.0	5.6	22.5	75.3	10.9	20.4	44.0			
95-2 (20-30 ft)	2.20	2.00	526.9	689.5	783.6	585.8	504.5	22.3	2.1	3.0	17.2	59.0	6.8	17.0	35.2			
95-2 (30-40 ft)	3.95	2.00	489.2	667.5	843.3	576.3	461.8	25.6	2.9	3.6	19.1	88.9	7.9	27.1	53.9			
95-2 (40-50 ft)	4.25	2.00	500.4	655.2	844.4	566.4	472.0	22.9	2.8	1.8	18.3	71.5	6.6	19.3	45.6			
95-2 (50-60 ft)	4.25	2.00	457.3	673.1	869.6	581.8	478.6	34.7	3.6	4.1	27.0	68.5	5.4	18.1	45.0			
95-2 (60-70 ft)	4.15	2.00	469.4	651.1	879.5	578.8	464.8	39.6	3.6	5.0	31.0	74.4	6.1	20.4	47.9			
95-2 (70-80 ft)	4.40	2.00	470.5	639.9	889.6	573.7	467.4	30.8	3.7	4.2	22.9	75.5	6.3	22.1	47.1			
95-2 (80-90 ft)	4.30	2.00	501.4	588.5	910.1	525.5	412.3	40.0	4.6	6.1	29.3	73.2	10.0	18.8	44.4			
95-2 (90-100 ft)	4.60	2.00	487.1	536.5	976.4	436.6	213.7	123.7	13.3	17.9	92.5	99.2	17.5	28.2	53.5			
95-2 (100-110 ft)	3.95	2.00	466.3	556.6	977.1	441.4	214.4	115.7	15.5	21.0	79.2	111.3	20.9	33.8	56.6			
95-2 (110-120 ft)	4.95	2.00	447.7	583.0	969.3	479.7	238.9	114.4	12.9	19.7	81.8	126.4	22.0	36.9	67.5			
95-2 (120-130 ft)	5.10	2.00	428.0	636.9	935.1	475.9	262.5	91.2	13.1	16.7	61.4	122.2	24.5	33.3	64.4			
95-2 (130-140 ft)	4.10	2.00	444.5	619.4	936.1	479.5	258.6	105.7	10.8	19.1	75.8	115.2	19.9	30.2	65.1			
95-2 (140-150 ft)	4.45	2.00	439.6	606.6	953.8	503.2	294.2	95.0	11.3	17.0	66.7	114.0	20.1	26.3	67.6			
95-2 (150-160 ft)	4.10	2.00	524.5	574.5	901.0	481.9	276.1	78.8	8.5	14.4	55.9	127.0	23.6	28.1	75.3			
95-2 (160-170 ft)	4.55	2.00	449.8	583.9	966.3	483.6	240.2	88.1	8.8	12.8	66.5	155.3	24.0	33.8	97.5			
95-2 (170-180 ft)	4.65	2.00	461.5	566.9	971.6	487.7	304.7	82.0	7.6	14.6	59.8	101.0	15.7	24.3	61.0			
95-2 (200-210 ft)	4.35	2.00	492.2	580.8	927.0	532.6	272.4	106.6	8.3	18.0	80.3	153.6	22.2	31.5	99.9			

\* After initial dry sieving, weight of 0.18-1.0 mm fraction is further reduced 10-20 percent by oxalic acid wash to remove adhering -0.18 mm crusher dust prior to final M.I. separation.

Table 1 - Sample Processing Weights.

FILENAME: Ed Kruchkowski 26BT (95-2).wb3  
 PROJECT: Titanium Mineralogy  
 TOTAL OF 18 SAMPLES

SAMPLE NO.	FRACTION	SEPARATION AMPERAGE	MINERALOGY (VOLUME PERCENT)											REMARKS:	
			MT	ILM	RUT	TT	CPX	OL	BT	EP	AP	GTH	PY		
95-2 (10-20 ft)	Ferromagnetic	NA	80	0	0	0	0	0	0	20	0	0	0	0	SEM checks from 0.18-0.25 mm fraction: 4 representative Fe-oxide candidates = 4 titanomagnetite (~10 wt% TiO <sub>2</sub> ); and 4 representative biotite candidates = 4 biotite (~5 wt% TiO <sub>2</sub> ). Note: biotite could not be dismantled after SEM analysis.
	Paramagnetic	<1.0	0	3	0	0	10	0	85-90	0	0	0	0	0	SEM checks from 0.18-0.25 mm fraction: 2 representative ilmenite candidates = 2 ilmenite.
	Nonmagnetic	>1.0	0	0	0	0	5	0	85	0	10	0	0	0	SEM checks from 0.18-0.25 mm fraction: 3 representative apatite candidates = 3 apatite.
95-2 (20-30 ft)	Ferromagnetic	NA	85-90	0.5	0	0	0	0	10	0	3	0	0	0	Apatite is intergrown with magnetite.
	Paramagnetic	<1.0	0	5	0	0	5	0	90	0	0	0	0	0	
	Nonmagnetic	>1.0	0	0	0	0	5	0	85-90	0	3	0	0	0	
95-2 (30-40 ft)	Ferromagnetic	NA	85-90	3-5	0	0	1	0	5	0	3-5	0	0	0	
	Paramagnetic	<1.0	0	3	0	0	3	0	95-100	0	1	0	0	0	
	Nonmagnetic	>1.0	0	0	0	0	1	0	85-90	0	5-10	0	0	0	
95-2 (40-50 ft)	Ferromagnetic	NA	75	5	0	0	10-20	0	5	0	5	0	0	0	
	Paramagnetic	<1.0	0	1	0	0	3	0	95	0	1	0	0	0	
	Nonmagnetic	>1.0	0	0	0	0	15	0	65	0	20	0	0	0	
95-2 (50-60 ft)	Ferromagnetic	NA	70-75	10	0	0	10	0.5	5	0	1	0	0	0	SEM check from 0.18-0.25 mm fraction: 1 yellow-green olivine versus epidote candidate = 1 fayalite olivine.
	Paramagnetic	<1.0	0	10	0	0	20-25	0.5	65-70	0	TR	0	0	0	
	Nonmagnetic	>1.0	0	0	0	0	15	0	70	0	15	0	0	0	
95-2 (60-70 ft)	Ferromagnetic	NA	70-75	5	0	0	10	3	3	0	3	0	0	0	
	Paramagnetic	<1.0	0	10	0	0	20-30	3	60-70	0	TR	0	0	0	
	Nonmagnetic	>1.0	0	0	0	0	20-30	0	60-70	0	10	0	0	0	
95-2 (70-80 ft)	Ferromagnetic	NA	85-90	3	0	0	5-7	1	1	0	1	0	0	0	
	Paramagnetic	<1.0	0	5-7	0	0	15	3	75-80	0	TR	0	0	0	
	Nonmagnetic	>1.0	0	0	0	0	5-10	0	75-85	0	10-15	0	0	0	
95-2 (80-90 ft)	Ferromagnetic	NA	85-90	5	0	0	5	TR	TR	0	3-5	0	0	0	SEM checks from 0.18-0.25 mm fraction: 4 representative Fe-oxide candidates = 4 titanomagnetite (~10 wt% TiO <sub>2</sub> ).
	Paramagnetic	<1.0	0	25	0	0	40	25	10	0	TR	0	0	0	
	Nonmagnetic	>1.0	0	0	0	0	75-80	0	3	0	20-25	0	0	0	
95-2 (90-100 ft)	Ferromagnetic	NA	70-75	3-5	0	0	15-20	0	1	0	5	0	0	0	
	Paramagnetic	<1.0	0	5	0	0	40	5	50	0	TR	0	0	0	
	Nonmagnetic	>1.0	0	0	0	0	30-40	0	5	0	60	0	0	TR	
95-2 (100-110 ft)	Ferromagnetic	NA	90-95	2	0	0	5-10	RTR	TR	0	1	0	0	0	
	Paramagnetic	<1.0	0	3	0	0	80-85	TR	15	RTR	3-5	0	0	0	
	Nonmagnetic	>1.0	0	0	0	0	45-50	0	0.5	0	50	0	0	3	
95-2 (110-120 ft)	Ferromagnetic	NA	85-90	1-2	0	0	10	0	0	0	3	0	0	0	
	Paramagnetic	<1.0	0	5	0	0	85-90	0	5	0	2	0	0	0	
	Nonmagnetic	>1.0	0	0	0	0	40-50	0	2	0	50-60	0	1	0	

Table 2 - Mineralogy of the 0.18-0.25 mm Heavy Mineral Fraction. Heavy lithic grains, where present, are classified according to their dominant contained heavy mineral species.

FILENAME: Ed Kruchkowski 26BT (95-2).wb3  
 PROJECT: Titanium Mineralogy  
 TOTAL OF 18 SAMPLES

SAMPLE NO.	FRACTION	SEPARATION AMPERAGE	MINERALOGY (VOLUME PERCENT)											REMARKS:
			MT	ILM	RUT	TT	CPX	OL	BT	EP	AP	GTH	PY	
95-2 (120-130 ft)	Ferromagnetic	NA	80-85	1	0	0	15-20	0	TR	0	3	0	0	
	Paramagnetic	<1.0	0	3-5	0	0	90-95	0	2	0	0.5	0	0	
	Nonmagnetic	>1.0	0	0	0	0	45-50	0	5	0	45-50	0	3-5	
95-2 (130-140 ft)	Ferromagnetic	NA	90-95	1	0	0	5	0	TR	0	2	0	TR	
	Paramagnetic	<1.0	0	5-7	0	0	90-95	TR	0.5	0	0.5	0	0	
	Nonmagnetic	>1.0	0	0	0	0	45-50	0	RTR	0	45-50	0	3	
95-2 (140-150 ft)	Ferromagnetic	NA	90-95	1	0	0	5	0	0	0	1	0	0	
	Paramagnetic	<1.0	0	15-20	0	0	80-85	0	1	0	1	0	1	
	Nonmagnetic	>1.0	0	0	0	0	45-50	0	1	0	45-50	0	5-10	
95-2 (150-160 ft)	Ferromagnetic	NA	90-95	3	0	0	3-5	0	0.5	0	3-5	0	0	
	Paramagnetic	<1.0	0	2	0	0	95	0	3	0	TR	0	0	
	Nonmagnetic	>1.0	0	0	0	TR	45-50	0	RTR	0	45-50	0	3	
95-2 (160-170 ft)	Ferromagnetic	NA	85-90	1	0	0	10	0	TR	0	1	0	RTR	SEM checks from 0.18-0.25 mm fraction: 3 representative Fe-oxide candidates = 3 titanomagnetite (<10 wt% TiO2) ± exsolved ilmenite.
	Paramagnetic	<1.0	0	0.5	0	0	95-100	0	1	0	0.5	0	0	
	Nonmagnetic	>1.0	0	0	0	0	40-50	0	TR	0	50-60	0	1	Rare trace of molybdenite.
95-2 (170-180 ft)	Ferromagnetic	NA	90-95	TR	0	0	5-10	0	0	0	1	0	0	
	Paramagnetic	<1.0	0	0.5	0	0	95-97	0	3	0	RTR	0	0	
	Nonmagnetic	>1.0	0	0	0	0	60-70	0	TR	0	20-30	0	5	Rare trace of spinel.
95-2 (200-210 ft)	Ferromagnetic	NA	85-90	0	0	0	10	0	0	0	1	0	0	
	Paramagnetic	<1.0	0	0.5	0	0	95-97	0	3	0	0.5	0	0	
	Nonmagnetic	>1.0	0	0	0	15-20	20	0	0	0	60-70	0	3-5	SEM checks from 0.18-0.25 mm fraction: 2 brown titanite candidates = 2 titanite; and 2 pink-grey zircon versus garnet candidates = 2 zircon. Estimate 3.5% zircon in nonmagnetic >1.0 amp fraction.

Table 2 - Mineralogy of the 0.18-0.25 mm Heavy Mineral Fraction. Heavy lithic grains, where present, are classified according to their dominant contained heavy mineral species.

## OVERBURDEN DRILLING MANAGEMENT LIMITED

SAMPLE NUMBER	Weight (g) of Heavy Minerals in 0.18 to 0.25 mm Fraction			
	TOTAL	FERROMAGNETIC	PARAMAGNETIC (<1.0 amp)	NONMAGNETIC (>1.0 amp)
95-2 (10-20 ft)	26.0	5.6	18.5	1.9
95-2 (20-30 ft)	20.0	3.0	14.4	2.6
95-2 (30-40 ft)	30.7	3.6	24.1	3.0
95-2 (40-50 ft)	21.1	1.8	16.9	2.4
95-2 (50-60 ft)	22.2	4.1	16.2	1.9
95-2 (60-70 ft)	25.4	5.0	18.4	2.0
95-2 (70-80 ft)	26.3	4.2	19.7	2.4
95-2 (80-90 ft)	24.9	6.1	17.3	1.5
95-2 (90-100 ft)	46.1	17.9	26.6	1.6
95-2 (100-110 ft)	54.8	21.0	31.9	1.9
95-2 (110-120 ft)	56.6	19.7	34.2	2.7
95-2 (120-130 ft)	50.0	16.7	30.9	2.4
95-2 (130-140 ft)	49.3	19.1	27.7	2.5
95-2 (140-150 ft)	43.3	17.0	23.9	2.4
95-2 (150-160 ft)	42.5	14.4	25.6	2.5
95-2 (160-170 ft)	46.6	12.8	31.6	2.2
95-2 (170-180 ft)	38.9	14.6	22.8	1.5
95-2 (200-210 ft)	49.5	18.0	30.3	1.2

Table 3 - Magnetic Susceptibility of Heavy Minerals in 0.18 to 0.25 mm Fraction. No paramagnetic separation done on other HMC fractions.

CLIENT = OVERBURDEN DRILLING MGMT LTD  
REPORT = C99-60250.1 ( COMPLETE )

DATE RECEIVED: 10-FEB-99 DATE PRINTED: 2-MAR-99 PAGE 1 OF 3 PROJECT: NONE

SAMPLE NUMBER	ELEMENT UNITS	SiO2 PCT	TiO2 PCT	Al2O3 PCT	Fe2O3* PCT	MnO PCT	MgO PCT	CaO PCT	Na2O PCT	K2O PCT	P2O5 PCT	LOI PCT	Total PCT	Ba PPM	Cr PPM	Sr PPM
95-2-10-20		50.93	2.83	16.92	9.17	0.14	2.99	5.32	4.55	2.97	1.09	0.79	99.95	>10000	76	1220
95-2-20-30		51.40	2.76	17.44	8.46	0.11	2.62	4.54	4.75	2.61	1.18	1.22	99.34	>10000	52	887
95-2-30-40		51.42	2.64	17.94	8.31	0.13	2.92	5.52	4.69	2.62	1.14	0.54	100.35	>10000	52	1043
95-2-40-50		51.39	2.58	17.89	8.01	0.13	2.81	5.55	4.77	2.53	1.10	0.49	99.66	>10000	60	1197
95-2-50-60		50.54	2.89	16.66	9.33	0.15	3.16	6.24	4.72	2.30	1.21	0.69	100.04	>10000	53	1106
95-2-60-70		50.15	3.03	16.06	9.92	0.16	3.37	6.30	4.54	2.41	1.31	0.59	100.19	>10000	51	1048
95-2-70-80		50.10	2.94	16.31	9.35	0.16	3.17	6.21	4.80	2.44	1.26	0.54	99.64	>10000	39	1055
95-2-80-90		49.47	3.34	16.17	11.21	0.20	3.30	6.80	4.62	1.90	1.27	0.44	100.48	>10000	50	1049
95-2-90-100		44.94	3.75	13.14	15.14	0.27	4.94	10.36	3.48	0.90	1.29	0.44	99.17	4590	41	700
95-2-100-110		43.93	3.90	12.48	16.07	0.28	4.80	10.07	3.28	0.83	0.91	0.60	97.68	4590	45	657
95-2-110-120		46.44	3.80	12.63	15.37	0.28	4.93	10.18	3.67	0.98	0.97	0.25	99.97	3955	39	569
95-2-120-130		46.57	3.49	12.08	15.04	0.29	4.97	9.88	3.81	1.10	1.03	1.03	99.83	4655	38	573
95-2-130-140		45.89	3.67	11.96	16.22	0.30	4.91	9.85	3.65	1.03	1.08	1.27	100.36	4580	35	603
95-2-140-150		47.10	3.37	12.93	15.09	0.28	4.68	9.40	3.91	1.36	0.82	0.59	100.14	5448	47	629
95-2-150-160		46.62	3.20	13.48	14.13	0.26	4.74	9.86	3.85	1.22	0.80	0.93	99.69	5183	52	683
95-2-160-170		46.63	3.13	11.98	15.40	0.32	4.80	10.29	3.68	1.22	0.91	0.69	99.62	5135	57	575
95-2-170-180		47.63	3.06	12.39	15.40	0.32	3.91	9.11	4.10	1.66	1.25	0.74	100.46	8320	62	387
95-2-180-190		54.20	1.92	17.91	8.75	0.14	1.42	4.90	5.98	2.24	0.37	0.65	100.10	>10000	57	490
95-2-190-200		56.00	1.74	19.45	6.91	0.11	0.67	3.52	6.54	2.56	0.11	0.79	100.13	>10000	63	582
95-2-200-210		46.50	3.55	9.92	21.56	0.51	2.54	8.20	3.96	1.96	0.66	<.05	99.76	3643	90	241
95-2-210-220		35.97	5.66	4.99	32.21	0.70	3.75	11.90	1.93	0.74	1.60	<.05	99.55	588	67	205
95-2-220-230		44.03	5.30	13.32	15.66	0.25	5.13	10.13	3.30	0.87	0.28	0.44	99.01	2235	58	750
95-2-230-240		46.23	4.53	14.16	13.50	0.21	4.22	9.37	3.72	1.27	0.37	1.61	99.89	5995	44	995
95-2-240-250		44.85	5.04	12.68	16.22	0.31	5.00	9.69	3.42	1.09	0.41	0.49	99.77	4871	46	767
95-2-250-260		45.87	4.32	13.62	14.83	0.27	4.54	9.58	3.75	1.05	0.62	0.63	99.77	5817	62	871
95-2-260-270		45.00	4.80	13.07	16.23	0.29	5.04	10.19	3.37	0.78	0.33	0.34	99.90	3704	70	782
95-2-270-280		45.33	4.35	14.45	15.97	0.25	4.17	9.15	3.65	0.86	0.39	0.40	99.61	5265	54	1217
95-2-280-290		49.37	2.89	17.37	11.77	0.17	2.68	7.82	4.74	1.12	0.68	0.45	100.05	8440	62	1279
95-2-290-300		45.57	4.08	14.15	15.64	0.23	4.93	9.97	3.45	0.88	0.44	0.29	100.17	4452	57	810

Table 4 - Intertek Testing Services Whole Rock Analyses of Test Samples.

Sample Number	% Biotite
95-2 (10-20 ft)	15
95-2 (20-30 ft)	3-5
95-2 (30-40 ft)	10
95-2 (40-50 ft)	10
95-2 (50-60 ft)	5
95-2 (60-70 ft)	5
95-2 (70-80 ft)	5-7
95-2 (80-90 ft)	7-10
95-2 (90-100 ft)	2-3
95-2 (100-110 ft)	TR
95-2 (110-120 ft)	1-2
95-2 (120-130 ft)	1-2
95-2 (130-140 ft)	3
95-2 (140-150 ft)	1
95-2 (150-160 ft)	TR
95-2 (160-170 ft)	1
95-2 (170-180 ft)	1
95-2 (200-210 ft)	0
95-2 (210-220 ft)	1
95-2 (220-230 ft)	5
95-2 (230-240 ft)	1
95-2 (240-250 ft)	1
95-2 (250-260 ft)	1
95-2 (260-270 ft)	TR
95-2 (270-280 ft)	1
95-2 (280-290 ft)	2
95-2 (290-300 ft)	TR

Table 5 - Biotite Content of Drill Core.



**OVERBURDEN DRILLING MANAGEMENT LIMITED**

Mr. Lorne Kelsch  
26 BT RESOURCE DEVELOPMENT CO. LTD.  
MacLeod Place 1, Suite 200  
5920 MacLeod Trail S.W.  
Calgary, Alberta T2E 0K2

April 16, 1999

fax: (403) 212-0733

Dear Mr. Kelsch:

Re: Titanium Mineralogy of Test Samples from DDH 95-2, British Columbia

Attached find our test results from the nine lower 10-foot intervals in the above diamond drill hole.

Our general processing procedures are outlined in my earlier (December 10 and 18, 1998) reports on Holes 94-4 and 96-1. Based on these earlier tests, we utilized only the milled 0.18-0.25 mm fraction which consists mainly of liberated mineral grains. This fraction should be representative of the entire sample as its weight is very consistent (Table 1).

As before, the principal Ti-bearing oxide is titanomagnetite (Table 2) which concentrates in the ferromagnetic fraction (Table 3). Ilmenite is not plentiful although we did note some as exsolution lamellae in the ferromagnetic titanomagnetite in addition to the usual liberated grains in the paramagnetic fraction. Titanite is rare and rutile is absent.

We haven't calculated the relative  $TiO_2$  contributions of the titanomagnetite and ilmenite but they appear to be within the range defined by the other two drill holes and to explain the 2-5%  $TiO_2$  analyses (Table 4). We noted, however, that the biotite in the samples is also Ti-bearing and this will have to be taken into account in the upper part of the drill hole which is relatively biotite-rich. Most of the biotite is not heavy.

I hope these observations are helpful. Please call me if you have any questions.

Yours sincerely,

Stu Averill,  
President

**FAXED**  
16/04/99

**Mines  
Are  
Where WE  
Find Them.**

107-15 Capella Court Nepean, Ontario K2E 7X1 Tel. 613-226-1771 FAX 613-226-8753

**OVERBURDEN DRILLING MANAGEMENT LIMITED**  
107-15 CAPELLA COURT, NEPEAN, ONTARIO, K2E 7X1  
TELEPHONE: (613) 226-1771/1774  
FAX NO.: (613) 226-8753  
EMAIL: odm@storm.ca

DATA TRANSMITTAL REPORT  
1,1

DATE: 16-Apr-99

ATTENTION: **Mr. Lorne Kelsch**

CLIENT: **26 BT RESOURCE DEVELOPMENT CO. LTD.**  
MacLeaod Place 1, Suite 200  
5920 MacLeaod Trail S.W.  
Calgary, AB  
T2H 0K2

FAX NO.: (403) 212-0733

NO. OF PAGES:

PROJECT: Titanium 95-2 (210-220 ft) to 95-2 (290-300 ft)  
Mineralogy

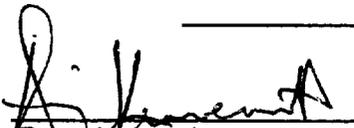
FILE NO: Ed Kruchkowski 26BT (March 31).wb3

NO. OF SAMPLES: 9

THESE SAMPLES WERE PROCESSED FOR: Titanium-bearing minerals

SPECIFICATIONS: SUBMITTED BY CLIENT: 5-FOOT 1/4 NQ CORE SECTIONS.  
COMBINED INTO 10-FOOT SECTIONS AND CRUSHED TO <2.0 MM.  
PREPARED 0.18 MM TO 1.0 MM HEAVY MINERAL CONCENTRATE (S.G.>3.2)  
FROM 2 KG SPLIT OF CRUSHED PRODUCT.  
PARAMAGNETIC SEPARATION AND PICKING DONE ON 0.18 TO 0.25 MM  
FRACTION ONLY.  
ALL FRACTIONS ARE PRESENTLY STORED.

REMARKS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

  
Remy Huneault  
Laboratory Manager

## OVERBURDEN DRILLING MANAGEMENT LIMITED

PROJECT:

TOTAL OF: 9 SAMPLES

FILENAME: Ed Kruchkowski 26BT (March 31).wb3

Sample Number	Weight (kg)		Weight (g)															
	Total Rec'd and Crushed	Processed Split	Sieve Fractions			0.18 to 1.0 mm M.I. Separation (S.G. 3.20)												
			1.0 to 2.0 mm	0.18 to 1.0 mm	-0.18 mm	Total	M.I. Lights	MAGNETIC HMC				NONMAGNETIC HMC						
								Total Mag	-0.18 mm (wash)	0.18 to 0.25 mm	0.25 to 1.0 mm	Total Non Mag	-0.18 mm (wash)	0.18 to 0.25 mm	0.25 to 0.5 mm	0.5 to 1.0 mm		
Titanium Mineralogy				*		*												
95-2 (210-220 ft)	5.00	2.00	442.4	599.7	957.9	590.3	98.1	187.9	34.7	27.0	126.2	304.3	63.6	56.5	99.2	85.0		
95-2 (220-230 ft)	4.80	2.00	486.8	558.9	954.3	556.5	285.7	81.7	12.2	7.1	62.4	189.1	42.6	27.9	67.9	50.7		
95-2 (230-240 ft)	4.55	2.00	429.6	620.3	950.1	618.9	408.1	72.5	16.2	10.8	45.5	138.3	36.6	23.1	47.2	31.4		
95-2 (240-250 ft)	4.45	2.00	445.0	584.5	970.5	579.2	310.6	76.8	12.2	11.8	52.8	191.8	47.8	33.2	60.2	50.6		
95-2 (250-260 ft)	5.05	2.00	416.5	576.0	1007.5	574.9	330.7	81.1	16.8	12.3	52.0	163.1	41.9	29.2	52.9	39.1		
95-2 (260-270 ft)	4.80	2.00	440.7	563.1	996.2	560.3	282.5	92.6	13.6	10.6	68.4	185.2	33.6	33.2	66.5	51.9		
95-2 (270-280 ft)	4.55	2.00	457.1	570.0	972.9	567.4	325.9	98.9	13.1	11.8	74.0	142.6	24.8	28.4	49.9	39.5		
95-2 (280-290 ft)	4.35	2.00	441.0	575.1	983.9	572.2	421.6	63.0	9.9	10.3	42.8	87.6	16.6	18.8	32.9	19.3		
95-2 (290-300 ft)	5.05	2.00	482.5	548.8	968.7	547.3	293.3	92.7	13.7	12.5	66.5	161.3	32.3	26.9	56.4	45.7		

\* Weight of 0.18-0.25 mm fraction is reduced slightly by loss of crusher dust in suspension during wash procedure between crushing and M.I. separation.

Table 1 - Sample Processing Weights.

FILENAME: Ed Kruchkowski 26BT (March 31).wb3  
 PROJECT: Titanium Mineralogy  
 TOTAL OF 9 SAMPLES

SAMPLE NO.	FRACTION	SEPARATION AMPERAGE	MINERALOGY (VOLUME PERCENT)											REMARKS:
			MT	ILM	RUT	TT	CPX	OL	BT	EP	AP	GTH	PY	
95-2 (210-220 ft)	Ferromagnetic	NA	~100	0	0	0	0	0	0	0	0	0	0	SEM checks from 0.18-0.25 mm fraction: 5 representative black oxide = 5 titanomagnetite ± exsolved ilmenite (polished section work is needed to confirm extent of exsolution).
	Paramagnetic	<1.0	0	TR	0	0	100	0	TR	0	TR	0	TR	SEM checks from 0.18-0.25 mm fraction: 2 black oxide = ilmenite; and 2 brown orthopyroxene versus clinopyroxene candidates = 2 clinopyroxene (Ti-bearing augite).
	Nonmagnetic	>1.0	0	0	0	TR	5	0	0	0	90-95	0	2	SEM checks from 0.18-0.25 mm fraction: 5 water-clear to grey apatite versus epidote candidates = 5 apatite; and 1 orange titanite versus staurolite candidate = 1 titanite.
95-2 (220-230 ft)	Ferromagnetic	NA	~100	0	0	0	0	0	0	0	0	0	0	
	Paramagnetic	<1.0	0	TR	0	0	100	0	TR	0	0	0	RTR	
	Nonmagnetic	>1.0	0	0	0	TR	80-85	0	0	0	15	0	1-2	
95-2 (230-240 ft)	Ferromagnetic	NA	99	0	0	0	TR	0	TR	0	TR	0	0	
	Paramagnetic	<1.0	0	3	0	0	97	0	TR	0	TR	0	0	
	Nonmagnetic	>1.0	0	0	0	RTR	75-80	0	RTR	0	20	0	1	
95-2 (240-250 ft)	Ferromagnetic	NA	99-100	0	0	0	0	0	RTR	0	0	0	RTR	
	Paramagnetic	<1.0	0	10	0	0	85-90	0	TR	0	0.5	0	RTR	
	Nonmagnetic	>1.0	0	0	0	RTR	75-80	0	RTR	0	20	0	2	
95-2 (250-260 ft)	Ferromagnetic	NA	99-100	0	0	0	0	0	RTR	0	TR	0	0	SEM checks from 0.25-0.50 mm fraction: 5 magnetite candidates = 5 titanomagnetite ± exsolved ilmenite.
	Paramagnetic	<1.0	0	10	0	0	85-90	0	2	0	2	0	0	SEM checks from 0.25-0.50 mm fraction: 5 green to brown clinopyroxene versus orthopyroxene candidates = 5 augite; 3 ilmenite candidates = 3 ilmenite; and 2 brown biotite versus phlogopite candidates = 2 biotite (~6 wt% TiO2). Analyzed biotite grains could not be encapsulated.
	Nonmagnetic	>1.0	0	0	0	0	20-30	0	0	0	60-70	0	15	SEM checks from 0.25-0.50 mm fraction: 5 white to grey apatite versus feldspar candidates = 5 apatite.
95-2 (260-270 ft)	Ferromagnetic	NA	99-100	0	0	0	0	0	TR	0	TR	0	0	
	Paramagnetic	<1.0	0	10-15	0	0	85-90	0	TR	0	1	0	0	
	Nonmagnetic	>1.0	0	0	0	0	20-30	0	0	0	70	0	7	
95-2 (270-280 ft)	Ferromagnetic	NA	99-100	0	0	0	0	0	TR	0	TR	0	0	
	Paramagnetic	<1.0	0	5	0	0	85-90	0	5	0	1	0	0	
	Nonmagnetic	>1.0	0	0	0	0	40-70	0	3	0	50-60	0	7	
95-2 (280-290 ft)	Ferromagnetic	NA	99-100	0	0	0	0	0	TR	0	TR	0	0	
	Paramagnetic	<1.0	0	10-15	0	0	70-75	0	15	0	TR	0	0	
	Nonmagnetic	>1.0	0	0	0	0	50	0	0.5	0	30-40	RTR	10-15	
95-2 (290-300 ft)	Ferromagnetic	NA	98-99	0	0	0	0	0	TR	0	1	0	0	
	Paramagnetic	<1.0	0	5	0	0	60-65	0	30-35	0	1	0	0	
	Nonmagnetic	>1.0	0	0	0	0	30-40	0	30	0	30-40	RTR	5	

Table 2 - Mineralogy of the 0.18-0.25 mm Heavy Mineral Fraction. Heavy lithic grains, where present, are classified according to their dominant contained heavy mineral species.

**OVERBURDEN DRILLING MANAGEMENT LIMITED**

SAMPLE NUMBER	Weight (g) of Heavy Minerals in 0.18 to 0.25 mm Fraction			
	TOTAL	FERROMAGNETIC	PARAMAGNETIC (<1.0 amp)	NONMAGNETIC (>1.0 amp)
95-2 (210-220 ft)	84.0	27.0	53.7	3.3
95-2 (220-230 ft)	35.3	7.1	26.0	2.2
95-2 (230-240 ft)	34.1	10.8	21.4	1.9
95-2 (240-250 ft)	45.9	11.8	31.5	2.6
95-2 (250-260 ft)	42.8	12.3	29.0	1.5
95-2 (260-270 ft)	44.5	10.6	32.3	1.6
95-2 (270-280 ft)	40.5	11.8	27.2	1.5
95-2 (280-290 ft)	29.5	10.3	17.6	1.6
95-2 (290-300 ft)	39.5	12.5	25.7	1.3

Table 3 - Magnetic Susceptibility of Heavy Minerals in 0.18 to 0.25 mm Fraction. No paramagnetic separation done on other HMC fractions.

0001



# Intertek Testing Services

## Chimitec Bondar Clegg

# Rapport Lab Geochimie

## Geochemical Lab Report

CLIENT: OVERBURDEN DRILLING MGMT LTD  
 REPORT: C99-60250.1 ( COMPLETE )

DATE RECEIVED: 10-FEB-99 DATE PRINTED: 2-MAR-99 PAGE 1 OF 3 PROJECT: NONE

SAMPLE NUMBER	ELEMENT UNITS	SiO2 PCT	TiO2 PCT	Al2O3 PCT	Fe2O3* PCT	MnO PCT	MgO PCT	CaO PCT	Na2O PCT	K2O PCT	P2O5 PCT	LOI PCT	Total PCT	Ba PPM	Cr PPM	Sr PPM
95-2-10-20		50.93	2.83	16.92	9.17	0.14	2.99	5.32	4.55	2.97	1.09	0.79	99.95	>10000	76	1220
95-2-20-30		51.40	2.76	17.44	8.46	0.11	2.62	4.54	4.75	2.61	1.18	1.22	99.34	>10000	52	887
95-2-30-40		51.42	2.64	17.94	8.31	0.13	2.92	5.52	4.69	2.62	1.14	0.54	100.35	>10000	52	1043
95-2-40-50		51.39	2.58	17.89	8.01	0.13	2.81	5.55	4.77	2.53	1.10	0.49	99.66	>10000	60	1197
95-2-50-60		50.54	2.89	16.66	9.33	0.15	3.16	6.24	4.72	2.30	1.21	0.69	100.04	>10000	53	1106
95-2-60-70		50.15	3.03	16.06	9.92	0.16	3.37	6.30	4.54	2.41	1.31	0.59	100.19	>10000	51	1048
95-2-70-80		50.10	2.94	16.31	9.35	0.16	3.17	6.21	4.80	2.44	1.26	0.54	99.64	>10000	39	1055
95-2-80-90		49.47	3.34	16.17	11.21	0.20	3.30	6.80	4.62	1.90	1.27	0.44	100.40	>10000	50	1049
95-2-90-100		44.94	3.75	13.14	15.14	0.27	4.94	10.36	3.48	0.90	1.29	0.44	99.17	4590	41	700
95-2-100-110		43.93	3.90	12.48	16.07	0.28	4.80	10.07	3.28	0.83	0.91	0.60	97.68	4590	45	657
95-2-110-120		46.44	3.80	12.63	15.37	0.28	4.93	10.18	3.67	0.98	0.97	0.25	99.97	3955	39	569
95-2-120-130		46.57	3.49	12.08	15.04	0.29	4.97	9.88	3.81	1.10	1.03	1.03	99.83	4655	38	573
95-2-130-140		45.89	3.67	11.96	16.22	0.30	4.91	9.85	3.65	1.03	1.08	1.27	100.36	4580	35	603
95-2-140-150		47.10	3.37	12.93	15.09	0.28	4.68	9.40	3.91	1.36	0.82	0.59	100.14	5448	47	629
95-2-150-160		46.62	3.20	13.48	14.13	0.26	4.74	9.86	3.85	1.22	0.80	0.93	99.69	5183	52	683
95-2-160-170		46.63	3.13	11.98	15.40	0.32	4.80	10.29	3.68	1.22	0.91	0.69	99.62	5135	57	575
95-2-170-180		47.63	3.06	12.39	15.40	0.32	3.91	9.11	4.10	1.66	1.25	0.74	100.46	8320	62	387
95-2-180-190		54.20	1.92	17.91	8.75	0.14	1.42	4.90	5.98	2.24	0.37	0.65	100.10	>10000	57	490
95-2-190-200		56.00	1.74	19.45	6.91	0.11	0.67	3.52	6.54	2.56	0.11	0.79	100.13	>10000	63	582
95-2-200-210		46.50	3.55	9.92	21.56	0.51	2.54	8.20	3.96	1.96	0.66	<.05	99.76	3643	90	241
95-2-210-220		35.97	5.66	4.99	32.21	0.70	3.75	11.90	1.93	0.74	1.60	<.05	99.55	588	67	205
95-2-220-230		44.03	5.30	13.32	15.66	0.25	5.13	10.13	3.30	0.87	0.28	0.44	99.01	2235	58	750
95-2-230-240		46.23	4.53	14.16	13.90	0.21	4.22	9.37	3.72	1.27	0.37	1.61	99.89	5995	44	995
95-2-240-250		44.85	5.04	12.68	16.22	0.31	5.00	9.69	3.42	1.09	0.41	0.49	99.77	4871	46	767
95-2-250-260		45.87	4.32	13.62	14.83	0.27	4.54	9.58	3.75	1.05	0.62	0.63	99.77	5817	62	871
95-2-260-270		45.00	4.80	13.07	16.23	0.29	5.04	10.19	3.37	0.78	0.33	0.34	99.90	3704	70	782
95-2-270-280		45.33	4.35	14.45	15.97	0.25	4.17	9.15	3.65	0.86	0.39	0.40	99.61	5265	54	1217
95-2-280-290		49.37	2.89	17.37	11.77	0.17	2.68	7.82	4.74	1.12	0.68	0.45	100.05	8440	62	1279
95-2-290-300		45.57	4.08	14.15	15.64	0.23	4.93	9.97	3.45	0.88	0.44	0.29	100.17	4452	57	810

ITS CHIMITEC BONDARCLEGG  
 03/02/99 MAR 11:01 FAX 18198250256

Table 4 - Intertek Testing Services Whole Rock Analyses of Test Samples.



**OVERBURDEN DRILLING MANAGEMENT LIMITED**

Mr. Ed Kruchkowski  
c/o AURORA CORROSION CONTROL  
3773 - 19th Street N.E.  
Calgary, Alberta T2E 6S8

December 23, 1998

fax: (403) 250-5872

Dear Mr. Kruchkowski:

Re: Titanium Mineralogy of Test Samples from Mafic Intrusion, British Columbia

We are mailing our final report on the above work today. Table 1 of the copy that we faxed to you on December 18 contained some calculation errors. We have revised it and added a supplementary table showing the weight breakdown of the subfractions that constitute the paramagnetic fraction of Table 1.

Have a great Christmas!

Yours sincerely,

Stu Averill,  
President

**Mines  
Are  
Where WE  
Find Them.**



## **OVERBURDEN DRILLING MANAGEMENT LIMITED**

Mr. Ed Kruchkowski  
c/o AURORA CORROSION CONTROL  
3773 - 19th Street N.E.  
Calgary, Alberta T2E 6S8

December 18, 1998

fax: (403) 250-5872

Dear Mr. Kruchkowski:

Re: Titanium Mineralogy of Test Samples from Mafic Intrusion, British Columbia

We have completed our test work on the two small NQ core samples that you supplied from Holes 94-4 (85 foot depth) and 96-1 (273 foot depth) and I am pleased to report the final results. The text of my report differs slightly from the preliminary one submitted on December 10 and more data tables are included.

I understand that assays of about 6 percent  $TiO_2$  have been reported for both samples. The objective of our work was to determine: 1) the mill grind size required to effectively liberate the Ti-bearing minerals; 2) the separation procedures required to concentrate all Ti-mineral species present, and 3) the relative abundances of these minerals. The same procedures would then be applied to larger samples representing your eighty 10-foot core intervals.

The Hole 94-4 sample is an olivine-clinopyroxene (hedenbergite) gabbro with 70 percent heavy minerals and the Hole 96-1 sample is a clinopyroxene gabbro with 90 percent heavy minerals (Tables 1, 2). The average grain size of the heavy minerals and minor intermixed plagioclase is 0.5 mm. The Hole 94-4 sample also contains 30 percent coarser (3 mm) plagioclase laths. These laths, together with the change between holes from olivine-rich to olivine-free gabbro, are indicative of gravitational settling (i.e. cumulate layering) within the mafic intrusive. Only two Ti-bearing minerals are present -- titanomagnetite and ilmenite. More than 90 percent of the magnetite is titanomagnetite; its  $TiO_2$  content appears to be about 10 percent. Rare grains of non-titaniferous magnetite may reflect minor recrystallization of the titanomagnetite.

Milling to 0.18-0.25 mm is effective in separating the gabbro into heavy and light grains; finer milling does not improve the separation (Table 3). In the ferromagnetic heavy mineral fraction, which represents 20 (Hole 94-4) to 35 (Hole 96-1) percent of the 0.18-0.25 mm sample material (Table 1) and contains all of the titanomagnetite, only 50-60 percent of the heavy grains are of liberated titanomagnetite (Table 2), the balance being lithic grains consisting of titanomagnetite intergrown with clinopyroxene  $\pm$  olivine  $\pm$  plagioclase, often as small inclusions. In the strongly paramagnetic ( $<0.6$  amp) fraction, which represents 40 (Hole 94-4) to 50 (Hole 96-1) percent of the sample (weights not shown in Table 1) and contains about 90 percent of the ilmenite, the proportion of individual liberated mineral grains rises to 90 percent with a corresponding drop in lithic grains to 10 percent.

**Mines  
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...p/2

Page 2

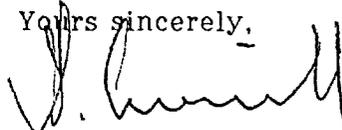
Mr. Ed Kruchkowski

With the ferromagnetic fraction grading about 50 percent titanomagnetite by volume and the titanomagnetite grading about 10 percent  $TiO_2$  and the ferromagnetic fraction constituting 20 percent by weight of the Hole 94-4 sample and 35 percent of the Hole 96-1 sample, the uncorrected (for differences in mineral weights within the ferromagnetic fraction)  $TiO_2$  - in-titanomagnetite content is about 1 percent in Hole 94-4 and 2.1 percent in Hole 96-1. Similarly, the strongly paramagnetic fractions in Holes 94-4 and 96-1, which represent 40 and 50 weight percent of the total sample, contain roughly 15 and 3 volume percent ilmenite, respectively, which translates into 3.1 and 0.75 percent (uncorrected)  $TiO_2$  since ilmenite contains 52 percent  $TiO_2$ . Therefore the combined uncorrected  $TiO_2$  content of the titanomagnetite and ilmenite in Holes 94-4 and 96-1 is roughly 3.5 and 2.9 percent. The corresponding corrected (Table 4) weight percent values are 5.3 and 3.4 percent. These are somewhat lower than your previously reported 6 percent figure, in part because minor ilmenite in the ferromagnetic and moderately paramagnetic fractions (Table 2) was not included in the recovery calculations. The titanomagnetite:ilmenite  $TiO_2$  contribution ratio is roughly 1:4 in Hole 94-4 and 2.5:1 in Hole 96-1.

According to Gross (1996; text attached), commercial Ti-Fe deposits are of two types: 1) dominantly ilmenite (e.g. Lac Allard), and 2) dominantly titaniferous magnetite, a term that includes granular and exsolution intergrowths of magnetite + ilmenite  $\pm$  hematite as well as the mineral titanomagnetite. Your occurrence is clearly of the second type. Historically, such deposits are more of interest for their iron than their titanium. To be commercially viable the Fe and Ti minerals must be sufficiently coarse-grained to be easily separated by milling, thereby reducing the  $TiO_2$  content of the iron concentrate to less than 1 percent. Since all of the Fe in your intrusive is chemically intermixed with Ti in titanomagnetite and ilmenite, it would be inseparable by milling. This is very deleterious to the commercial viability of the Fe-Ti resource. If there are no firm indications of cleaner Fe and Ti mineralogical zones elsewhere in your drill core, processing of the remaining core samples may not be warranted.

I hope these observations and interpretations are helpful. Please call me if you have any questions or comments.

Yours sincerely,



Stu Averill,  
President

OVERBURDEN DRILLING MANAGEMENT LIMITED

SAMPLE NUMBER	GRAIN SIZE (mm)	WEIGHT IN GRAMS							
		TOTAL**	HEAVY MINERALS*				TOTAL	LIGHT MINERALS*	% HEAVY MINERALS
			FERROMAGNETIC	PARAMAGNETIC	NONMAGNETIC	OTHER ***			
94-4 (85 FT)	0.25-0.5	213.76	59.95	97.29	0.56		157.80	55.96	74.2
	0.18-0.25	83.56	16.70	38.71	0.51		55.92	27.64	66.9
	0.125-0.18	67.08	11.34	34.34	2.13		47.81	19.27	71.3
	-0.125 WASH	8.58	1.49	---	---	2.17	3.66	4.92	42.7
	TOTAL	372.98	89.48	170.34	3.20	2.17	265.19	107.79	
96-1 (273 FT)	0.25-0.5	23.11	7.19	3.09	0.11		10.39	12.72	45.0
	0.18-0.25	177.54	61.55	98.81	1.12		161.48	16.06	91.0
	0.125-0.18	140.30	39.54	82.40	1.76		123.70	16.60	88.2
	-0.125 WASH	19.63	3.99	---	---	10.94	14.93	4.70	73.1
	TOTAL	360.58	112.27	184.30	2.99	10.94	310.50	50.08	

\*Heavy and light "minerals" include impure lithic grains that are dominated by a heavy or light mineral

\*\*Excludes -0.125 mm fines sieved out after milling and not processed for heavy minerals (178.2 g in Sample 94-4 and 299.0 g in Sample 96-1).

\*\*\*No paramagnetic separation performed on -0.125 mm wash.

Table 1 - Mineral Separation by Grain Size and Magnetism.

OVERBURDEN DRILLING MANAGEMENT LIMITED

SAMPLE NO.	FRACTION	SEPARATION AMPERAGE	MINERALOGY (VOLUME PERCENT)									REMARKS
			MT	ILM	RUT	CPX	OL	BT	EP	AP	PY	
94-4 (85 FT)	Ferromagnetic	NA	50	0*	0	30	20	0	0	0	0	SEM checks from 0.25-0.50 mm fraction: 20 representative ferromagnetic oxide grains = 18 titanomagnetite and 2 ilmenite; 3 representative olivine candidates = 3 fayalite olivine; 3 representative brown orthopyroxene candidates = 3 hedenbergite clinopyroxene; and 3 representative red-brown phlogopite candidates = 3 biotite. SEM checks from 0.18-0.25 mm fraction: 3 representative zoisite versus zircon candidates = 3 apatite.
	Paramagnetic	<0.6	0	15	0	40	40-45	1	0	0	0	
		0.6-0.8	0	5	0	70-75	25	2	0	0	0	
		0.8-1.0	0	Tr	0	90	3	7	0	0	0	
Nonmagnetic	>1.0	0	0	0	80-85	Tr	6	0	12	0		
96-1 (273 FT)	Ferromagnetic	NA	60	0*	0	40	0	0	0	0	1	SEM checks from 0.25-0.50 mm fraction: 20 representative ferromagnetic oxide grains = 16 titanomagnetite, 1 common magnetite and 3 ilmenite.
	Paramagnetic	<0.6	0	3	0	90-95	0	0	1	0	3	
		0.6-0.8	0	0	0	97-98	0	0	2	0	Tr	
		0.8-1.0	0	0	0	99	0	0	Tr	0	Tr	
	Nonmagnetic	>1.0	0	0	Tr	75-80	0	0	2	20	Tr	

\* SEM analysis shows that 10-15 percent of "magnetite" in ferromagnetic fraction is actually ilmenite.

Table 2 - Mineralogy of the 0.18-0.25 mm Heavy Mineral Fraction. Heavy lithic grains, where present, are classified according to their dominant contained heavy mineral species.

## OVERBURDEN DRILLING MANAGEMENT LIMITED

SAMPLE NO.	LIBERATION RATIO					
	FERROMAGNETIC HMC			NONFERROMAGNETIC HMC		
	0.25-0.50 mm	0.18-0.25 mm	0.125-0.18 mm	0.25-0.50 mm	0.18-0.25 mm	0.125-0.18 mm
94-4 (85 ft)	0.2	0.5	0.5-0.6	0.8	0.9	0.9
96-1 (273 ft)	0.5	0.6	0.6	0.8	0.9	0.9

Table 3 - Variation in Heavy Mineral Liberation Ratio with Grain Size and Magnetism.  
 Liberation ratio = heavy mineral grains/(heavy mineral + heavy lithic grains).

OVERBURDEN DRILLING MANAGEMENT LIMITED

Sample No.: 94-4 (85 FT)

TiO<sub>2</sub> -Bearing Mineral: Ilmenite

Ilmenite Liberation Size: 0.18-0.25 mm

Weight of 0.18-0.25 mm Fraction: 83.56 g

Principal Ilmenite-Bearing Fraction: <0.6 amp paramagnetic

Weight of Ilmenite-Bearing Fraction: 33.16 g

Ilmenite Content: 15 volume percent

TiO<sub>2</sub> Content of Ilmenite: 52 weight percent

Percent TiO<sub>2</sub> as Ilmenite by Volume:  $33.16/83.56 \times 15\% \times 0.52 = 3.1$

Ilmenite Fraction Mineralogy: 15% ilmenite + titanomagnetite @ SG 4.7, 40% hedenbergite @ SG 3.5, 45% olivine @ SG 3.3

Ilmenite Weight Percent Correction Factor:

$$\frac{0.15 \times 4.7}{(0.15 \times 4.7) + (0.4 \times 3.5) + (0.45 \times 3.3)} / 0.15 = 1.31$$

Weight Percent TiO<sub>2</sub> as Ilmenite :  $1.31 \times 3.1 = 4.06$

OVERBURDEN DRILLING MANAGEMENT LIMITED

SAMPLE NUMBER	GRAIN SIZE (mm)	WEIGHT IN GRAMS			
		AMPERAGE FRACTION			
		TOTAL	<0.6	0.6 to 0.8	0.8 to 1.0
94-4 (85 FT)	0.25-0.5	97.29	86.78	9.01	1.50
	0.18-0.25	38.71	33.16	4.09	1.46
	0.125-0.18	34.34	30.56	2.62	1.16
	-0.125 WASH	2.17	NA	NA	NA
	<b>TOTAL</b>	<b>172.51</b>	<b>150.50</b>	<b>15.72</b>	<b>4.12</b>
96-1 (273 FT)	0.25-0.5	3.09	1.68	0.69	0.72
	0.18-0.25	98.81	85.43	11.28	2.10
	0.125-0.18	82.40	67.40	12.97	2.03
	-0.125 WASH	10.94	NA	NA	NA
	<b>TOTAL</b>	<b>195.24</b>	<b>154.51</b>	<b>24.94</b>	<b>4.85</b>

**Supplementary Table - Weights of Paramagnetic Subfractions.**

No paramagnetic separations were done on -0.125 mm wash.



REPORT: C99-60682.1 ( COMPLETE )

REFERENCE: 165456

CLIENT: OVERBURDEN DRILLING MGNT LTD

SUBMITTED BY: R. HUNEULT

PROJECT: NONE

DATE RECEIVED: 31-MAR-99 DATE PRINTED: 3-MAY-99

DATE APPROVED	ELEMENT	NUMBER OF ANALYSES	LOWER DETECTION	EXTRACTION	METHOD
000000	1 SiO2 Silica (SiO2)	48	0.01 PCT	BORATE FUSION	INDUC. COUP. PLASMA
000000	2 TiO2 Titanium (TiO2)	48	0.01 PCT	BORATE FUSION	INDUC. COUP. PLASMA
000000	3 Al2O3 Alumina (Al2O3)	48	0.01 PCT	BORATE FUSION	INDUC. COUP. PLASMA
000000	4 Fe2O3* Total Iron (Fe2O3)	48	0.01 PCT	BORATE FUSION	INDUC. COUP. PLASMA
000000	5 MnO Manganese (MnO)	48	0.01 PCT	BORATE FUSION	INDUC. COUP. PLASMA
000000	6 MgO Magnesium (MgO)	48	0.01 PCT	BORATE FUSION	INDUC. COUP. PLASMA
000000	7 CaO Calcium (CaO)	48	0.01 PCT	BORATE FUSION	INDUC. COUP. PLASMA
000000	8 Na2O Sodium (Na2O)	48	0.01 PCT	BORATE FUSION	INDUC. COUP. PLASMA
000000	9 K2O Potassium (K2O)	48	0.05 PCT	BORATE FUSION	INDUC. COUP. PLASMA
000000	10 P2O5 Phosphorous (P2O5)	48	0.03 PCT	BORATE FUSION	INDUC. COUP. PLASMA
000000	11 LOI Loss on Ignition	48	0.05 PCT	Ignition 1000 Deg.	GRAVIMETRIC
000000	12 Total Whole Rock Total	48	0.01 PCT		
000000	13 Ba Barium	48	10 PPM	BORATE FUSION	INDUC. COUP. PLASMA
000000	14 Cr Chromium	48	10 PPM	BORATE FUSION	INDUC. COUP. PLASMA
000000	15 Sr Strontium	48	5 PPM	BORATE FUSION	INDUC. COUP. PLASMA

SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
DRILL CORE	48	-150	48	COMPOSITING	45

REPORT COPIES TO: REMY HUNEULT  
26 BT RESOURCE

INVOICE TO: 26 BT RESOURCE

\*\*\*\*\*  
This report must not be reproduced except in full. The data presented in this report is specific to those samples identified under "Sample Number" and is applicable only to the samples as received expressed on a dry basis unless otherwise indicated  
\*\*\*\*\*

*Handwritten initials*



# Intertek Testing Services

Chimitec Bondar Clegg

## Rapport Lab Geochimie Geochemical Lab Report

CLIENT: OVERBURDEN DRILLING MGMT LTD  
REPORT: C99-60682.1 ( COMPLETE )

DATE RECEIVED: 31-MAR-99 DATE PRINTED: 3-MAY-99 PAGE 1 OF 5

PROJECT: NONE

SAMPLE NUMBER	ELEMENT UNITS	SiO2 PCT	TiO2 PCT	Al2O3 PCT	Fe2O3* PCT	MnO PCT	MgO PCT	CaO PCT	Na2O PCT	K2O PCT	P2O5 PCT	LOI PCT	Total PCT	Ba PPM	Cr PPM	Sr PPM
94-4/2.5-15		41.07	5.76	11.74	18.60	0.31	5.98	10.91	2.75	0.27	2.50	0.20	100.36	1743	76	932
94-4/15-25		41.97	5.00	13.29	16.43	0.28	5.53	10.85	3.07	0.34	2.34	0.94	100.35	2063	51	1037
94-4/25-35		41.33	5.26	13.03	17.51	0.29	5.70	10.87	2.95	0.30	2.35	1.03	100.92	2010	52	1006
94-4/35-45		42.00	5.07	13.33	16.95	0.29	5.55	10.60	3.17	0.34	2.22	0.54	100.43	2412	55	1037
94-4/45-55		34.92	7.14	8.27	25.55	0.41	7.77	11.05	1.98	0.23	2.95	<0.05	100.49	1447	57	666
94-4/55-65		39.19	5.96	10.94	20.55	0.34	6.46	10.80	2.73	0.34	2.60	<0.05	100.22	2155	52	862
94-4/65-75		35.33	7.15	8.06	25.46	0.41	7.99	10.99	1.97	0.26	2.90	<0.05	100.76	1602	38	642
94-4/75-85		34.75	6.94	8.14	25.16	0.42	7.75	10.74	1.95	0.21	2.84	<0.05	99.14	1609	59	659
94-4/85-95		39.14	5.85	10.62	21.49	0.39	6.90	10.56	2.65	0.30	2.41	<0.05	100.62	2232	53	837
94-4/95-100		40.23	5.46	11.42	19.94	0.36	6.35	10.43	2.89	0.32	2.33	<0.05	100.15	2477	53	893
94-6/5-15		47.48	3.96	12.96	15.64	0.14	5.66	8.62	3.20	0.45	0.26	2.35	100.81	128	41	721
94-6/15-25		48.54	3.59	14.13	14.86	0.16	5.21	7.57	3.33	0.53	0.24	2.55	100.79	139	63	756
94-6/25-35		48.41	3.79	13.00	14.90	0.16	5.46	8.80	3.01	0.47	0.23	2.42	100.75	131	64	749
94-6/35-45		39.98	4.93	12.72	18.92	0.20	7.04	11.33	1.65	0.56	0.32	2.58	100.32	158	48	778
94-6/45-55		39.86	4.92	12.53	18.94	0.20	7.12	12.21	1.56	0.44	0.32	2.33	100.54	152	53	945
94-6/55-65		39.13	5.21	11.89	19.60	0.21	7.40	11.84	1.46	0.37	0.32	2.65	100.18	128	47	842
94-6/65-75		39.23	5.16	12.23	19.33	0.20	7.28	11.90	1.49	0.43	0.30	2.67	100.33	151	36	881
94-6/75-85		39.25	5.09	12.12	19.15	0.20	7.35	12.42	1.38	0.38	0.38	2.79	100.62	133	29	1028
94-6/85-95		38.70	5.34	11.44	20.81	0.22	7.74	11.66	1.44	0.38	0.32	2.24	100.37	147	34	626
94-6/95-100		38.75	5.60	11.41	20.98	0.22	7.82	11.80	1.47	0.34	0.31	1.98	100.77	143	24	561
96-1/55-65		42.51	3.69	12.14	14.91	0.19	8.11	14.94	1.57	0.56	0.59	1.55	100.89	163	338	850
96-1/65-75		42.06	3.66	11.40	15.20	0.20	8.47	14.85	1.48	0.61	0.52	1.76	100.36	160	358	823
96-1/75-85		40.51	4.30	11.75	15.65	0.22	7.94	15.06	1.49	0.64	1.14	1.59	100.43	157	269	929
96-1/85-95		41.71	3.73	11.94	14.94	0.20	7.84	14.92	1.48	0.59	0.59	2.01	100.08	170	322	953
96-1/95-105		38.90	3.62	11.45	15.79	0.19	8.20	15.85	0.84	0.29	0.85	2.88	99.06	74	254	1614
96-1/105-115		40.71	3.79	12.05	15.41	0.21	8.04	15.07	1.36	0.53	0.81	2.06	100.19	138	274	1230
96-1/115-125		42.20	3.78	11.58	15.29	0.21	8.23	15.23	1.57	0.44	0.46	1.29	100.40	135	366	853
96-1/125-135		42.06	3.75	11.44	15.21	0.21	8.19	15.27	1.61	0.37	0.53	1.23	100.00	137	373	813
96-1/135-145		42.61	3.65	11.65	14.95	0.21	8.27	15.25	1.67	0.42	0.45	1.03	100.29	141	374	814
96-1/145-155		42.79	3.57	11.64	14.74	0.20	8.01	15.03	1.79	0.42	0.36	1.43	100.11	156	347	770



CLIENT: OVERBURDEN DRILLING MGMT LTD  
REPORT: C99-60682.1 ( COMPLETE )

DATE RECEIVED: 31-MAR-99 DATE PRINTED: 3-MAY-99 PAGE 2 OF 5

PROJECT: NONE

SAMPLE NUMBER	ELEMENT UNITS	SiO2 PCT	TiO2 PCT	Al2O3 PCT	Fe2O3* PCT	MnO PCT	MgO PCT	CaO PCT	Na2O PCT	K2O PCT	P2O5 PCT	LOI PCT	Total PCT	Ba PPM	Cr PPM	Sr PPM
96-1/155-165		39.25	3.63	10.87	16.04	0.21	8.14	15.84	1.22	0.28	0.70	2.73	99.03	118	360	895
96-1/165-175		36.63	4.49	10.36	17.78	0.23	7.55	15.53	1.15	0.36	1.27	2.57	98.04	140	168	816
96-1/175-180		40.35	2.56	13.48	11.34	0.17	7.00	17.83	0.96	0.49	0.50	5.10	99.88	171	85	866
96-3/20-30		47.78	1.17	13.40	8.41	0.27	4.26	19.09	1.64	1.61	0.45	2.44	100.61	365	91	309
96-3/30-40		56.67	0.76	16.87	5.33	0.18	1.37	8.21	4.18	4.85	0.21	1.43	100.18	586	74	457
96-3/40-50		57.71	1.41	15.99	6.06	0.13	2.92	5.63	5.39	2.57	0.27	2.66	100.82	278	51	342
96-3/50-60		62.54	0.69	16.03	4.38	0.19	1.51	2.86	6.56	3.57	0.09	1.78	100.26	217	55	187
96-3/60-70		56.83	1.50	14.97	6.59	0.23	2.81	5.72	4.38	2.80	0.25	4.69	100.83	306	96	258
96-3/70-80		60.80	0.75	13.45	5.02	0.24	3.28	6.03	5.54	2.68	0.09	2.19	100.10	200	73	173
96-3/80-90		55.50	1.49	12.31	7.92	0.21	5.42	9.08	4.11	1.38	0.28	3.03	100.81	281	139	301
96-3/90-100		56.95	1.12	12.71	6.36	0.19	5.56	10.29	2.94	1.39	0.25	2.32	100.16	222	85	385
96-3/100-110		66.89	0.61	10.51	5.70	0.13	4.39	6.82	1.55	0.50	0.15	2.97	100.28	84	142	393
96-3/110-120		58.83	0.86	14.12	7.33	0.35	2.77	5.88	6.02	2.08	0.24	1.38	99.95	390	50	320
96-3/120-130		59.17	0.28	11.86	7.69	0.50	3.36	7.56	5.13	1.89	0.11	3.03	100.64	329	22	199
96-3/130-140		67.75	0.20	9.41	6.65	0.37	3.04	5.49	4.99	1.17	0.12	0.99	100.22	247	96	88
96-3/270-280		43.19	3.69	10.31	14.34	0.25	7.12	12.60	2.37	0.85	1.48	3.23	99.52	273	194	495
96-3/280-290		41.36	3.81	12.24	13.26	0.24	4.22	10.66	1.48	0.96	1.67	9.34	99.28	181	<10	293
96-3/290-300		54.65	2.16	14.85	9.34	0.18	2.21	4.98	5.87	2.97	0.75	2.13	100.16	342	37	364

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CLIENT: OVERBURDEN DRILLING MGMT LTD

PROJECT: NONE

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DATE RECEIVED: 31-MAR-99

DATE PRINTED: 3-MAY-99 PAGE 3 OF 5

STANDARD NAME	ELEMENT UNITS	SiO2 PCT	TiO2 PCT	Al2O3 PCT	Fe2O3* PCT	MnO PCT	MgO PCT	CaO PCT	Na2O PCT	K2O PCT	P2O5 PCT	LOI PCT	Total PCT	Ba PPM	Cr PPM	Sr PPM
Loss on Ignition Std		-	-	-	-	-	-	-	-	-	-	4.12	-	-	-	-
Loss on Ignition Std		-	-	-	-	-	-	-	-	-	-	4.19	-	-	-	-
Number of Analyses		-	-	-	-	-	-	-	-	-	-	2	-	-	-	-
Mean Value		-	-	-	-	-	-	-	-	-	-	4.16	-	-	-	-
Standard Deviation		-	-	-	-	-	-	-	-	-	-	0.05	-	-	-	-
Accepted Value		-	-	-	-	-	-	-	-	-	-	4.24	-	-	-	-
=																
CANMET STD SY-3		61.07	0.16	11.81	6.45	0.33	2.63	8.31	4.14	4.20	0.54	-	99.71	437	<10	322
CANMET STD SY-3		60.74	0.15	11.72	6.36	0.32	2.67	8.26	4.17	4.25	0.54	-	99.27	440	<10	321
Number of Analyses		2	2	2	2	2	2	2	2	2	2	-	2	2	2	2
Mean Value		60.90	0.16	11.77	6.40	0.33	2.65	8.29	4.15	4.23	0.54	-	99.49	439	5	322
Standard Deviation		0.23	<.01	0.07	0.06	<.01	0.03	0.04	0.02	0.04	<.01	-	0.31	2	-	<1
Accepted Value		59.68	0.15	11.80	6.42	0.32	2.67	8.26	4.15	4.20	0.54	1.20	-	430	10	306
=																
ANALYTICAL BLANK		<0.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.05	<.03	-	-	<10	<10	<5
ANALYTICAL BLANK		<0.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.05	<.03	-	-	<10	<10	<5
Number of Analyses		2	2	2	2	2	2	2	2	2	2	-	-	2	2	2
Mean Value		<0.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	0.03	0.02	-	-	5	5	3
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value		<0.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<1	<1	<1



CLIENT: OVERBURDEN DRILLING MGMT LTD  
REPORT: C99-60682.1 ( COMPLETE )

DATE RECEIVED: 31-MAR-99 DATE PRINTED: 3-MAY-99 PAGE 4 OF 5

PROJECT: NONE

STANDARD NAME	ELEMENT UNITS	SiO2 PCT	TiO2 PCT	Al2O3 PCT	Fe2O3* PCT	MnO PCT	MgO PCT	CaO PCT	Na2O PCT	K2O PCT	P2O5 PCT	LOI PCT	Total PCT	Ba PPM	Cr PPM	Sr PPM
Loss On Ignition		-	-	-	-	-	-	-	-	-	-	- 37.39	-	-	-	-
Number of Analyses		-	-	-	-	-	-	-	-	-	-	- 1	-	-	-	-
Mean Value		-	-	-	-	-	-	-	-	-	-	- 37.39	-	-	-	-
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value		-	-	-	-	-	-	-	-	-	-	- 37.30	-	-	-	-



CLIENT: OVERBURDEN DRILLING MGMT LTD  
REPORT: C99-60682.1 ( COMPLETE )

DATE RECEIVED: 31-MAR-99 DATE PRINTED: 3-MAY-99 PAGE 5 OF 5

PROJECT: NONE

SAMPLE NUMBER	ELEMENT UNITS	SiO2 PCT	TiO2 PCT	Al2O3 PCT	Fe2O3* PCT	MnO PCT	MgO PCT	CaO PCT	Na2O PCT	K2O PCT	P2O5 PCT	LOI PCT	Total PCT	Ba PPM	Cr PPM	Sr PPM
94-4/2.5-15 Duplicate		41.07	5.76	11.74	18.60	0.31	5.98	10.91	2.75	0.27	2.50	0.20	100.36	1743	76	932
												0.10				
94-4/25-35 Duplicate		41.33	5.26	13.03	17.51	0.29	5.70	10.87	2.95	0.30	2.35	1.03	100.92	2010	52	1006
		40.75	5.23	13.03	17.52	0.29	5.73	10.93	2.96	0.31	2.31			1989	47	1004
94-4/95-100 Duplicate		40.23	5.46	11.49	19.94	0.36	6.35	10.43	2.89	0.32	2.33	<0.05	100.15	2477	53	893
												<0.05				
94-6/75-85 Duplicate		39.25	5.09	12.12	19.15	0.20	7.35	12.42	1.38	0.38	0.38	2.79	100.62	133	29	1028
												2.73				
94-6/95-100 Duplicate		38.75	5.60	11.41	20.98	0.22	7.82	11.80	1.47	0.34	0.31	1.98	100.77	143	24	561
		38.14	5.56	11.24	20.91	0.22	7.73	11.70	1.47	0.34	0.31			142	36	548
96-3/30-40 Duplicate		56.67	0.76	16.87	5.33	0.18	1.37	8.21	4.18	4.85	0.21	1.43	100.18	586	74	457
												1.47				
96-3/80-90 Duplicate		55.50	1.49	12.31	7.92	0.21	5.42	9.08	4.11	1.38	0.28	3.03	100.81	281	139	301
		55.29	1.48	12.22	7.90	0.21	5.42	9.08	4.13	1.40	0.29			284	173	301
96-3/120-130 Duplicate		59.17	0.28	11.86	7.69	0.50	3.36	7.56	5.13	1.89	0.11	3.03	100.64	329	22	199
												2.99				



REPORT: C99-60250.1 ( COMPLETE )

REFERENCE: 165452

CLIENT: OVERBURDEN DRILLING MGNT LTD

SUBMITTED BY: R. HUNEALUT

PROJECT: NONE

DATE RECEIVED: 10-FEB-99

DATE PRINTED: 2-MAR-99

DATE APPROVED	ELEMENT	NUMBER OF ANALYSES	LOWER DETECTION	EXTRACTION	METHOD
000000	1 SiO2 Silica (SiO2)	29	0.01 PCT	BORATE FUSION	INDUC. COUP. PLASMA
000000	2 TiO2 Titanium (TiO2)	29	0.01 PCT	BORATE FUSION	INDUC. COUP. PLASMA
000000	3 .l2O3 Alumina (Al2O3)	29	0.01 PCT	BORATE FUSION	INDUC. COUP. PLASMA
000000	4 Fe2O3* Total Iron (Fe2O3)	29	0.01 PCT	BORATE FUSION	INDUC. COUP. PLASMA
000000	5 MnO Manganese (MnO)	29	0.01 PCT	BORATE FUSION	INDUC. COUP. PLASMA
000000	6 MgO Magnesium (MgO)	29	0.01 PCT	BORATE FUSION	INDUC. COUP. PLASMA
000000	7 CaO Calcium (CaO)	29	0.01 PCT	BORATE FUSION	INDUC. COUP. PLASMA
000000	8 Na2O Sodium (Na2O)	29	0.01 PCT	BORATE FUSION	INDUC. COUP. PLASMA
000000	9 K2O Potassium (K2O)	29	0.05 PCT	BORATE FUSION	INDUC. COUP. PLASMA
000000	10 P2O5 Phosphorous (P2O5)	29	0.03 PCT	BORATE FUSION	INDUC. COUP. PLASMA
000000	11 LOI Loss on Ignition	29	0.05 PCT	Ignition 1000 Deg.	GRAVIMETRIC
000000	12 Total Whole Rock Total	29	0.01 PCT		
000000	13 Ba Barium	29	10 PPM	BORATE FUSION	INDUC. COUP. PLASMA
000000	14 Cr Chromium	29	10 PPM	BORATE FUSION	INDUC. COUP. PLASMA
000000	15 Sr Strontium	29	5 PPM	BORATE FUSION	INDUC. COUP. PLASMA

SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
DRILL CORE	29	-150	29	COMPOSITING	29

REPORT COPIES TO: 26 BT RESOURCE  
MR ED KRUCKOWSKI  
MR REMI HUNEALUT

INVOICE TO: 26 BT RESOURCE

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# Intertek Testing Services Chimitec Bondar Clegg

## Rapport Lab Geochimie Geochemical Lab Report

CLIENT: OVERBURDEN DRILLING MGMT LTD  
REPORT: C99-60250.1 ( COMPLETE )

PROJECT: NONE  
DATE RECEIVED: 10-FEB-99 DATE PRINTED: 2-MAR-99 PAGE 1 OF 3

SAMPLE NUMBER	ELEMENT UNITS	SiO2 PCT	TiO2 PCT	.L2O3 PCT	Fe2O3* PCT	MnO PCT	MgO PCT	CaO PCT	Na2O PCT	K2O PCT	P2O5 PCT	LOI PCT	Total PCT	Ba PPM	Cr PPM	Sr PPM
95-2-10-20		50.93	2.83	16.92	9.17	0.14	2.99	5.32	4.55	2.97	1.09	0.79	99.95	>10000	76	1220
95-2-20-30		51.40	2.76	17.44	8.46	0.11	2.62	4.54	4.75	2.61	1.18	1.22	99.34	>10000	52	887
95-2-30-40		51.42	2.64	17.94	8.31	0.13	2.92	5.52	4.69	2.62	1.14	0.54	100.35	>10000	52	1043
95-2-40-50		51.39	2.58	17.89	8.01	0.13	2.81	5.55	4.77	2.53	1.10	0.49	99.66	>10000	60	1197
95-2-50-60		50.54	2.89	16.66	9.33	0.15	3.16	6.24	4.72	2.30	1.21	0.69	100.04	>10000	53	1106
95-2-60-70		50.15	3.03	16.06	9.92	0.16	3.37	6.30	4.54	2.41	1.31	0.59	100.19	>10000	51	1048
95-2-70-80		50.10	2.94	16.31	9.35	0.16	3.17	6.21	4.80	2.44	1.26	0.54	99.64	>10000	39	1055
95-2-80-90		49.47	3.34	16.17	11.21	0.20	3.30	6.80	4.62	1.90	1.27	0.44	100.40	>10000	50	1049
95-2-90-100		44.94	3.75	13.14	15.14	0.27	4.94	10.36	3.48	0.90	1.29	0.44	99.17	4590	41	700
95-2-100-110		43.93	3.90	12.48	16.07	0.28	4.80	10.07	3.28	0.83	0.91	0.60	97.68	4590	45	657
95-2-110-120		46.44	3.80	12.63	15.37	0.28	4.93	10.18	3.67	0.98	0.97	0.25	99.97	3955	39	569
95-2-120-130		46.57	3.49	12.08	15.04	0.29	4.97	9.88	3.81	1.10	1.03	1.03	99.83	4655	38	573
95-2-130-140		45.89	3.67	11.96	16.22	0.30	4.91	9.85	3.65	1.03	1.08	1.27	100.36	4580	35	603
95-2-140-150		47.10	3.37	12.93	15.09	0.28	4.68	9.40	3.91	1.36	0.82	0.59	100.14	5448	47	629
95-2-150-160		46.62	3.20	13.48	14.13	0.26	4.74	9.86	3.85	1.22	0.80	0.93	99.69	5183	52	683
95-2-160-170		46.63	3.13	11.98	15.40	0.32	4.80	10.29	3.68	1.22	0.91	0.69	99.62	5135	57	575
95-2-170-180		47.63	3.06	12.39	15.40	0.32	3.91	9.11	4.10	1.66	1.25	0.74	100.46	8320	62	387
95-2-180-190		54.20	1.92	17.91	8.75	0.14	1.42	4.90	5.98	2.24	0.37	0.65	100.10	>10000	57	490
95-2-190-200		56.00	1.74	19.45	6.91	0.11	0.67	3.52	6.54	2.56	0.11	0.79	100.13	>10000	63	582
95-2-200-210		46.50	3.55	9.92	21.56	0.51	2.54	8.20	3.96	1.96	0.66	<.05	99.76	3643	90	241
95-2-210-220		35.97	5.66	4.99	32.21	0.70	3.75	11.90	1.93	0.74	1.60	<.05	99.55	588	67	205
95-2-220-230		44.03	5.30	13.32	15.66	0.25	5.13	10.13	3.30	0.87	0.28	0.44	99.01	2235	58	750
95-2-230-240		46.23	4.53	14.16	13.50	0.21	4.22	9.37	3.72	1.27	0.37	1.61	99.89	5995	44	995
95-2-240-250		44.85	5.04	12.68	16.22	0.31	5.00	9.69	3.42	1.09	0.41	0.49	99.77	4871	46	767
95-2-250-260		45.87	4.32	13.62	14.83	0.27	4.54	9.58	3.75	1.05	0.62	0.63	99.77	5817	62	871
95-2-260-270		45.00	4.80	13.07	16.23	0.29	5.04	10.19	3.37	0.78	0.33	0.34	99.90	3704	70	782
95-2-270-280		45.33	4.35	14.45	15.97	0.25	4.17	9.15	3.65	0.86	0.39	0.40	99.61	5265	54	1217
95-2-280-290		49.37	2.89	17.37	11.77	0.17	2.68	7.82	4.74	1.12	0.68	0.45	100.05	8440	62	1279
95-2-290-300		45.57	4.08	14.15	15.64	0.23	4.93	9.97	3.45	0.88	0.44	0.29	100.17	4452	57	810



# Intertek Testing Services

## Chimitec Bondar Clegg

# Rapport Lab Geochimie

## Geochemical Lab Report

CLIENT: OVERBURDEN DRILLING MGMT LTD  
 REPORT: C99-60250.1 ( COMPLETE )

PROJECT: NONE  
 DATE RECEIVED: 10-FEB-99 DATE PRINTED: 2-MAR-99 PAGE 2 OF 3

STANDARD NAME	ELEMENT UNITS	SiO2 PCT	TiO2 PCT	Al2O3 PCT	Fe2O3* PCT	MnO PCT	MgO PCT	CaO PCT	Na2O PCT	K2O PCT	P2O5 PCT	LOI PCT	Total PCT	Ba PPM	Cr PPM	Sr PPM
Loss on Ignition Std		-	-	-	-	-	-	-	-	-	-	4.03	-	-	-	-
Number of Analyses		-	-	-	-	-	-	-	-	-	-	1	-	-	-	-
Mean Value		-	-	-	-	-	-	-	-	-	-	4.03	-	-	-	-
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value		-	-	-	-	-	-	-	-	-	-	4.24	-	-	-	-
CANMET STD SY-3		60.10	0.15	11.73	6.41	0.33	2.67	8.24	4.04	4.18	0.53	-	98.45	442	<10	311
Number of Analyses		1	1	1	1	1	1	1	1	1	1	-	1	1	1	1
Mean Value		60.10	0.15	11.73	6.41	0.33	2.67	8.24	4.04	4.18	0.53	-	98.45	442	5	311
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value		59.68	0.15	11.80	6.42	0.32	2.67	8.26	4.15	4.20	0.54	1.20	-	430	10	306
ANALYTICAL BLANK		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.03	-	-	<10	<10	<5
Number of Analyses		1	1	1	1	1	1	1	1	1	1	-	-	1	1	1
Mean Value		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.03	0.02	-	-	5	5	3
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<1	<1	<1



Intertek Testing Services  
Chimitec Bondar Clegg

Rapport Lab Geochimie  
Geochemical Lab Report

CLIENT: OVERBURDEN DRILLING MGMT LTD  
REPORT: C99-60250.1 ( COMPLETE )

DATE RECEIVED: 10-FEB-99 DATE PRINTED: 2-MAR-99 PAGE 3 OF 3 PROJECT: NONE

SAMPLE NUMBER	ELEMENT UNITS	SiO2 PCT	TiO2 PCT	Al2O3 PCT	Fe2O3* PCT	MnO PCT	MgO PCT	CaO PCT	Na2O PCT	K2O PCT	P2O5 PCT	LOI PCT	Total PCT	Ba PPM	Cr PPM	Sr PPM
95-2-10-20		50.93	2.83	16.92	9.17	0.14	2.99	5.32	4.55	2.97	1.09	0.79	99.95	>10000	76	1220
Duplicate		51.72	2.84	16.67	8.94	0.14	2.94	5.26	4.62	3.12	1.10	0.60		>10000	76	1252
95-2-100-110		43.93	3.90	12.48	16.07	0.28	4.80	10.07	3.28	0.83	0.91	0.60	97.68	4590	45	657
Duplicate												0.70				
95-2-180-190		54.20	1.92	17.91	8.75	0.14	1.42	4.90	5.98	2.24	0.37	0.65	100.10	>10000	57	490
Duplicate												0.69				
95-2-190-200		56.00	1.74	19.45	6.91	0.11	0.67	3.52	6.54	2.56	0.11	0.79	100.13	>10000	63	582
Duplicate		57.04	1.73	19.32	6.78	0.11	0.67	3.49	6.42	2.52	0.11			>10000	63	577



REPORT: C99-60250.0 ( COMPLETE )

REFERENCE: 165452

CLIENT: OVERBURDEN DRILLING MGNT LTD  
PROJECT: NONE

DATE RECEIVED: 10-FEB-99

SUBMITTED BY: R. HUNEALT  
DATE PRINTED: 15-FEB-99

DATE APPROVED	ORDER	ELEMENT	NUMBER OF ANALYSES	LOWER DETECTION LIMIT	EXTRACTION	METHOD
990215	1	Au	4	1 PPB	FIRE ASSAY	FIRE ASSAY-DCP
990215	2	Pt	4	5 PPB	FIRE ASSAY	FIRE ASSAY-DCP
990215	3	Pd	4	1 PPB	FIRE ASSAY	FIRE ASSAY-DCP

SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
DRILL CORE	58	-150	58	CRUSH/SPLIT & PULV.	58

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MR ED KRUCKOWSKI  
MR REMI HUNEALT

INVOICE TO: 26 BT RESOURCE

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\*\*\*\*\*

*R. Huneault* TP



CLIENT: OVERBURDEN DRILLING MGNT LTD  
REPORT: C99-60250.0 ( COMPLETE )

DATE RECEIVED: 10-FEB-99

PROJECT: NONE

DATE PRINTED: 15-FEB-99

PAGE 1 DE 3

SAMPLE NUMBER	ELEMENT UNITS	Au PPB	Pt PPB	Pd PPB	SAMPLE NUMBER	ELEMENT UNITS	Au PPB	Pt PPB	Pd PPB
95-2-10-15					95-2-210-215		1	<5	2
95-2-15-20					95-2-215-220		<1	<5	1
95-2-20-25					95-2-220-225				
95-2-25-30					95-2-225-230				
95-2-30-35					95-2-230-235				
95-2-35-40					95-2-235-240				
95-2-40-45					95-2-240-245				
95-2-45-50					95-2-245-250		<1	<5	1
95-2-50-55					95-2-250-255				
95-2-55-60					95-2-255-260				
95-2-60-65					95-2-260-265				
95-2-65-70					95-2-265-270				
95-2-70-75					95-2-270-275				
95-2-75-80					95-2-275-280				
95-2-80-85					95-2-280-285				
95-2-85-90					95-2-285-290				
95-2-90-95					95-2-290-295				
95-2-95-100					95-2-295-300				
95-2-100-105									
95-2-105-110									
95-2-110-115									
95-2-115-120									
95-2-120-125									
95-2-125-130									
95-2-130-135									
95-2-135-140									
95-2-140-145									
95-2-145-150									
95-2-150-155									
95-2-155-160									
95-2-160-165									
95-2-165-170									
95-2-170-175									
95-2-175-180									
95-2-180-185									
95-2-185-190									
95-2-190-195									
95-2-195-200									
95-2-200-205									
95-2-205-210		2	<5	1					



CLIENT: OVERBURDEN DRILLING MGNT LTD  
REPORT: C99-60250.0 ( COMPLETE )

DATE RECEIVED: 10-FEB-99

PROJECT: NONE

DATE PRINTED: 15-FEB-99

PAGE 2 DE 3

STANDARD NAME	ELEMENT UNITS	Au PPB	Pt PPB	Pd PPB	STANDARD NAME	ELEMENT UNITS	Au PPB	Pt PPB	Pd PPB
ANALYTICAL BLANK		<1	<5	2					
Number of Analyses		1	1	1					
Mean Value		0.5	2.5	1.5					
Standard Deviation		-	-	-					
Accepted Value		5	5	5					
DCP STANDARD		80	81	83					
Number of Analyses		1	1	1					
Mean Value		79.9	80.9	83.0					
Standard Deviation		-	-	-					
Accepted Value		83	83	83					



CLIENT: OVERBURDEN DRILLING MGMT LTD  
REPORT: C99-60250.0 ( COMPLETE )

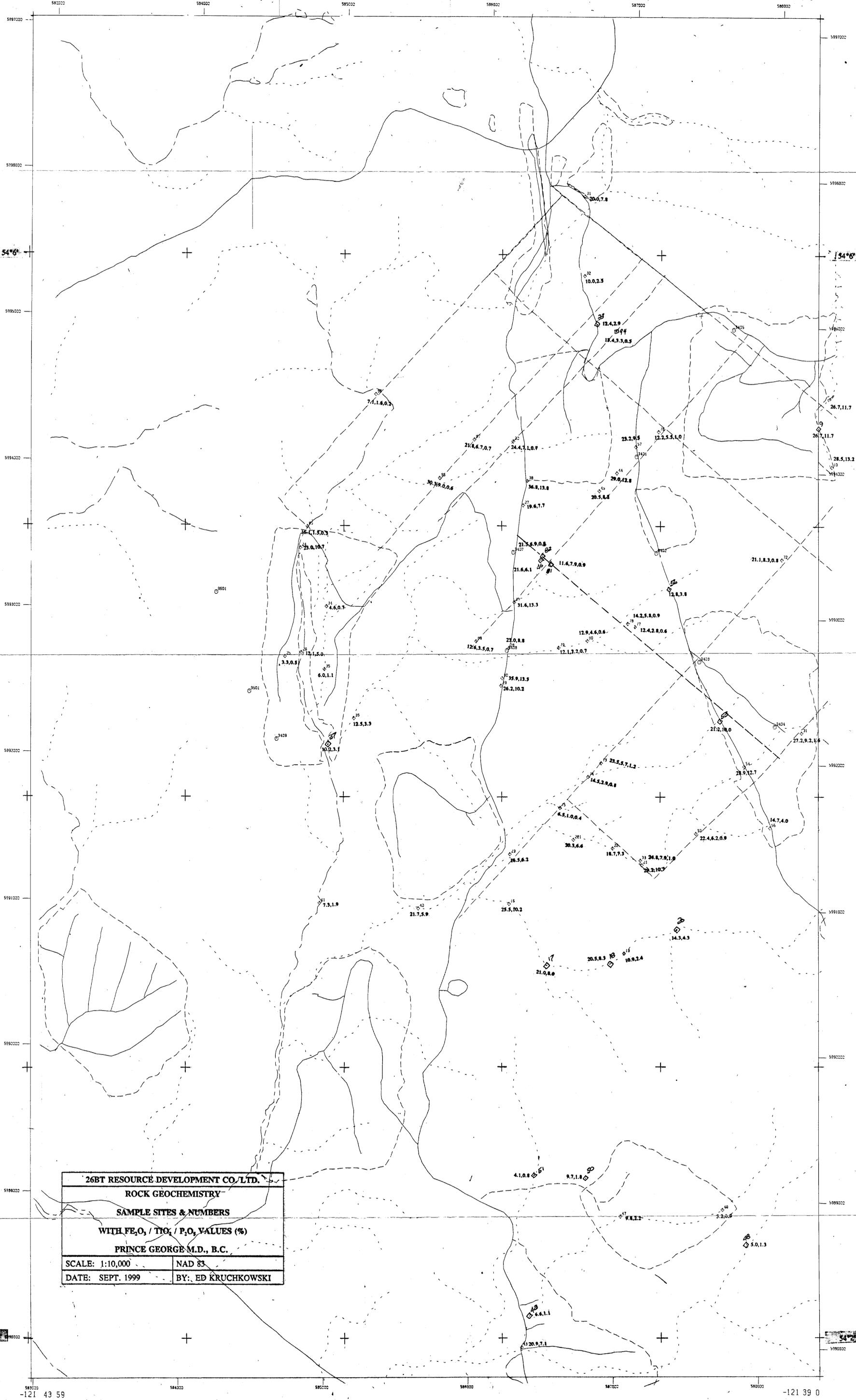
DATE RECEIVED: 10-FEB-99

PROJECT: NONE

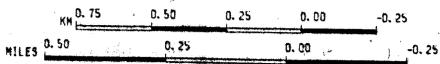
DATE PRINTED: 15-FEB-99

PAGE 3 DE 3

SAMPLE NUMBER	ELEMENT UNITS	Au PPB	Pt PPB	Pd PPB	SAMPLE NUMBER	ELEMENT UNITS	Au PPB	Pt PPB	Pd PPB
95-2-205-210		2	<5	1					
Duplicate		<1	<5	2					



26BT RESOURCE DEVELOPMENT CO./LTD.	
ROCK GEOCHEMISTRY	
SAMPLE SITES & NUMBERS	
WITH FE <sub>2</sub> O <sub>3</sub> / TiO <sub>2</sub> / P <sub>2</sub> O <sub>5</sub> VALUES (%)	
PRINCE GEORGE M.D., B.C.	
SCALE: 1:10,000	NAD 83
DATE: SEPT. 1999	BY: ED KRUCHKOWSKI



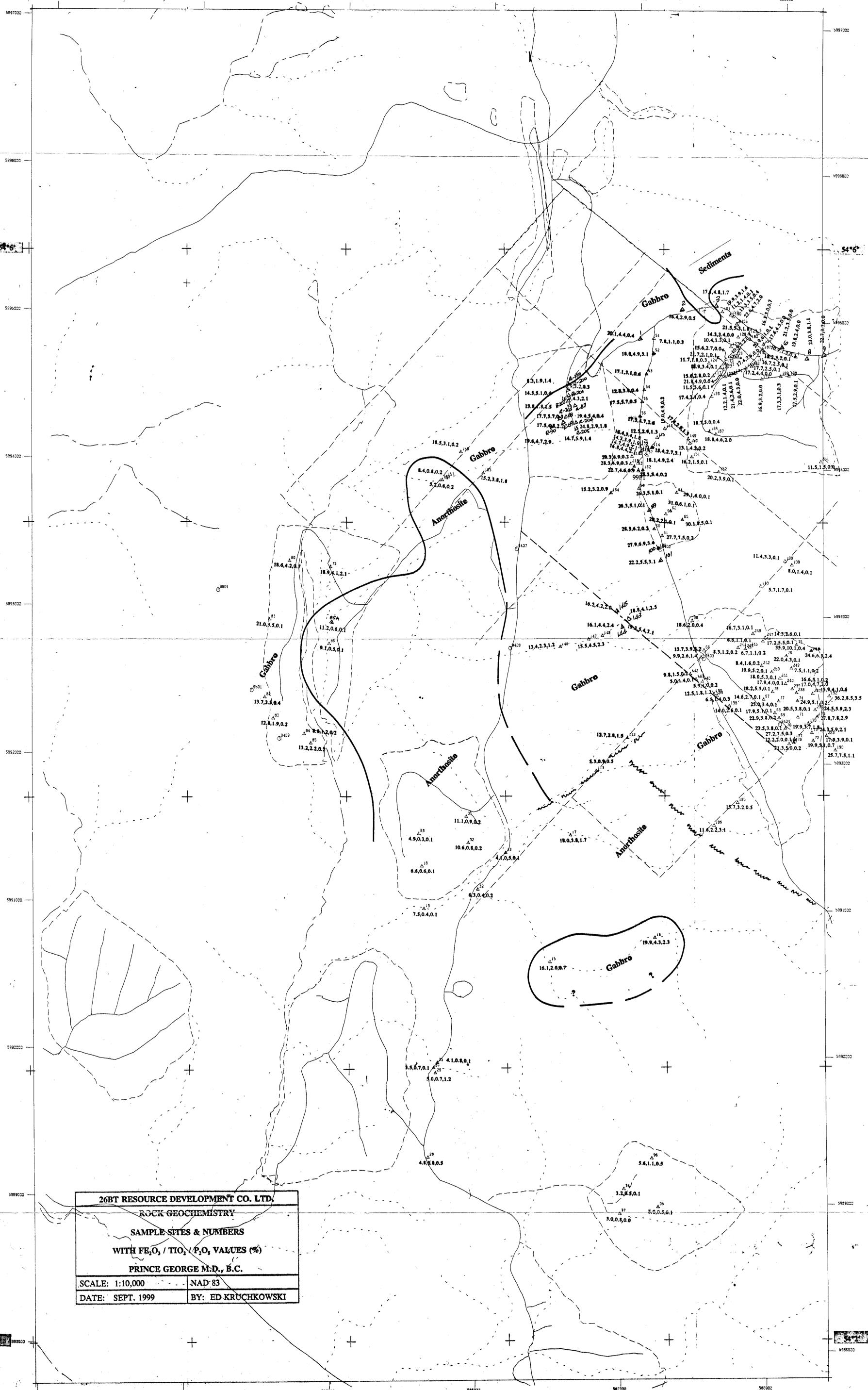
GEOLOGICAL SURVEY BRANCH  
 REPORT

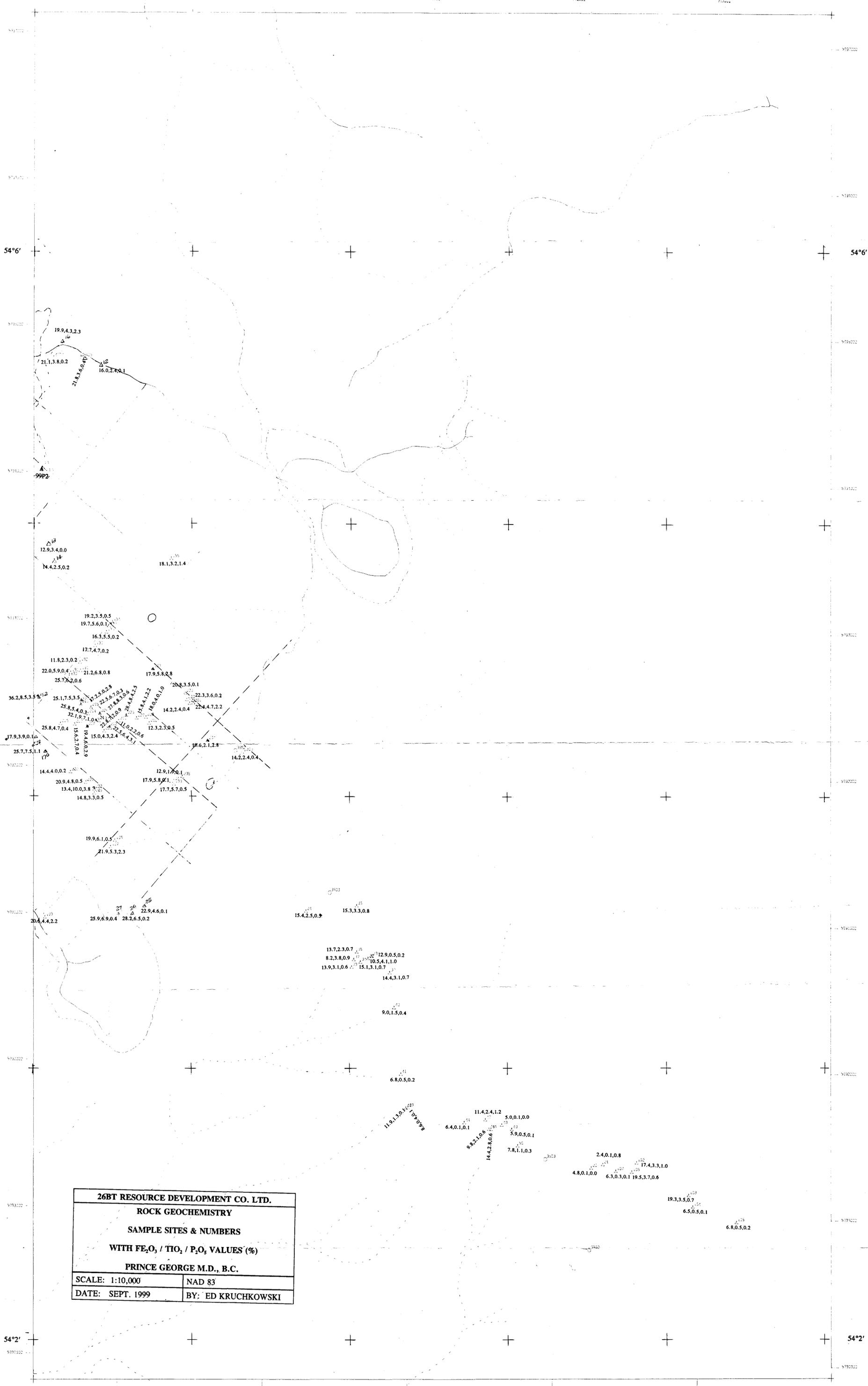
26BT SILT Samples  
 NAD-83 West

SCALE 1:10 0000

26,044

Fig 1





**26BT RESOURCE DEVELOPMENT CO. LTD.**  
**ROCK GEOCHEMISTRY**  
**SAMPLE SITES & NUMBERS**  
**WITH  $Fe_2O_3$  /  $TiO_2$  /  $P_2O_5$  VALUES (%)**  
**PRINCE GEORGE M.D., B.C.**  
 SCALE: 1:10,000      NAD 83  
 DATE: SEPT. 1999      BY: ED KRUCHKOWSKI

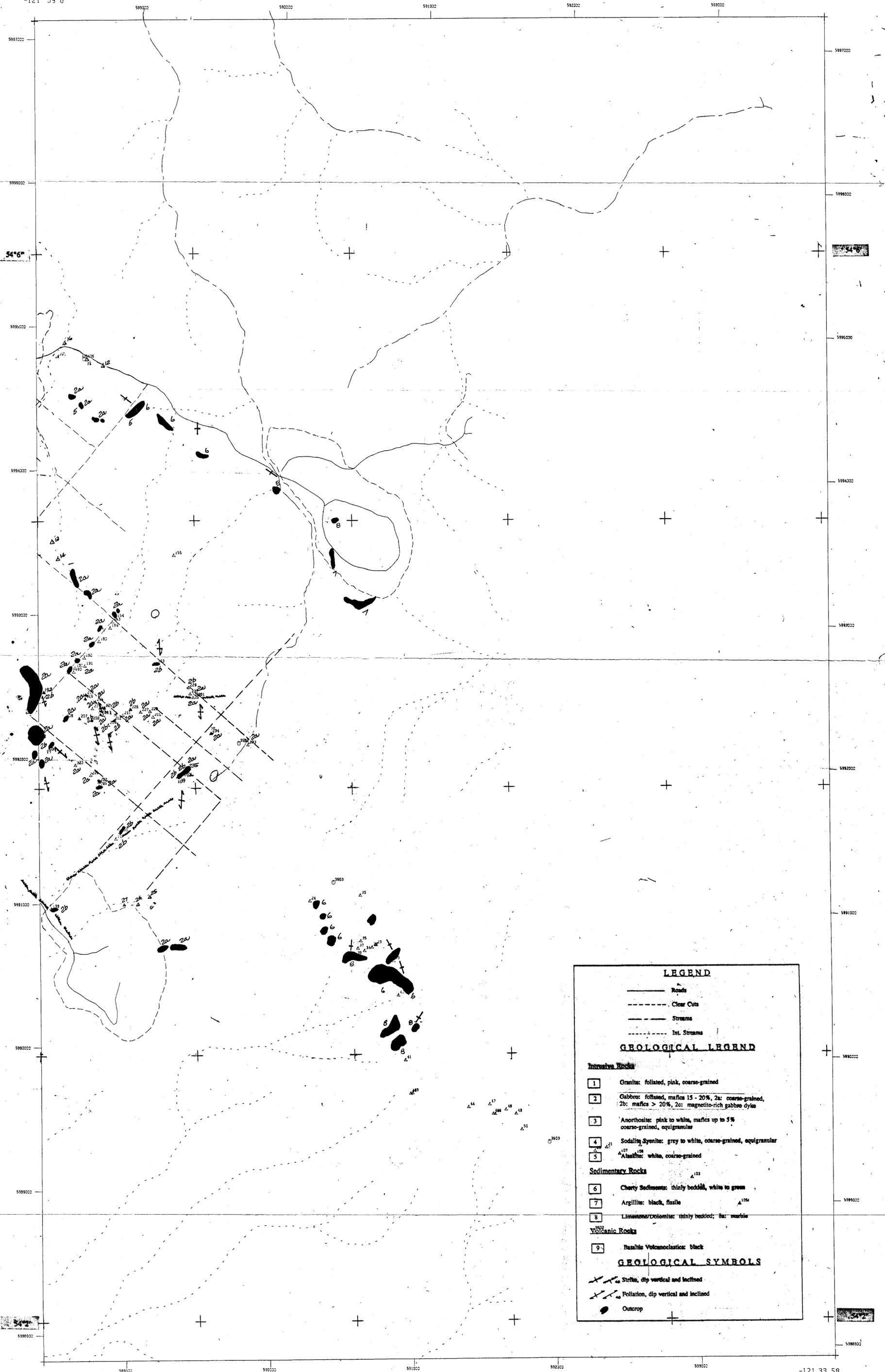


**FIGURE 6**

26,044

26BT ROCK Samples  
NAD-83 East

SCALE 1 TO 10000



**LEGEND**

— Roads  
 - - - Clear Cuts  
 — Streams  
 - - - Int. Streams

**GEOLOGICAL LEGEND**

**Intrusive Rocks**

1 Granite: foliated, pink, coarse-grained  
 2 Gabbro: foliated, mafics 15 - 20%, 2a: coarse-grained, 2b: mafics > 20%, 2c: magnetite-rich gabbro dyke  
 3 Anorthosite: pink to white, mafics up to 5% coarse-grained, equigranular  
 4 Sodalite syenite: grey to white, coarse-grained, equigranular  
 5 Alaskite: white, coarse-grained

**Sedimentary Rocks**

6 Cherty Sediments: thinly bedded, white to green  
 7 Argillite: black, fissile  
 8 Limestone/Dolomite: thinly bedded; 8a: marble

**Volcanic Rocks**

9 Basaltic Volcanoclastics: black

**GEOLOGICAL SYMBOLS**

X / Striae, dip vertical and inclined  
 X / Foliation, dip vertical and inclined  
 ● Outcrop

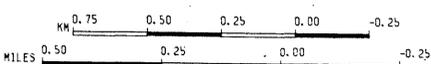


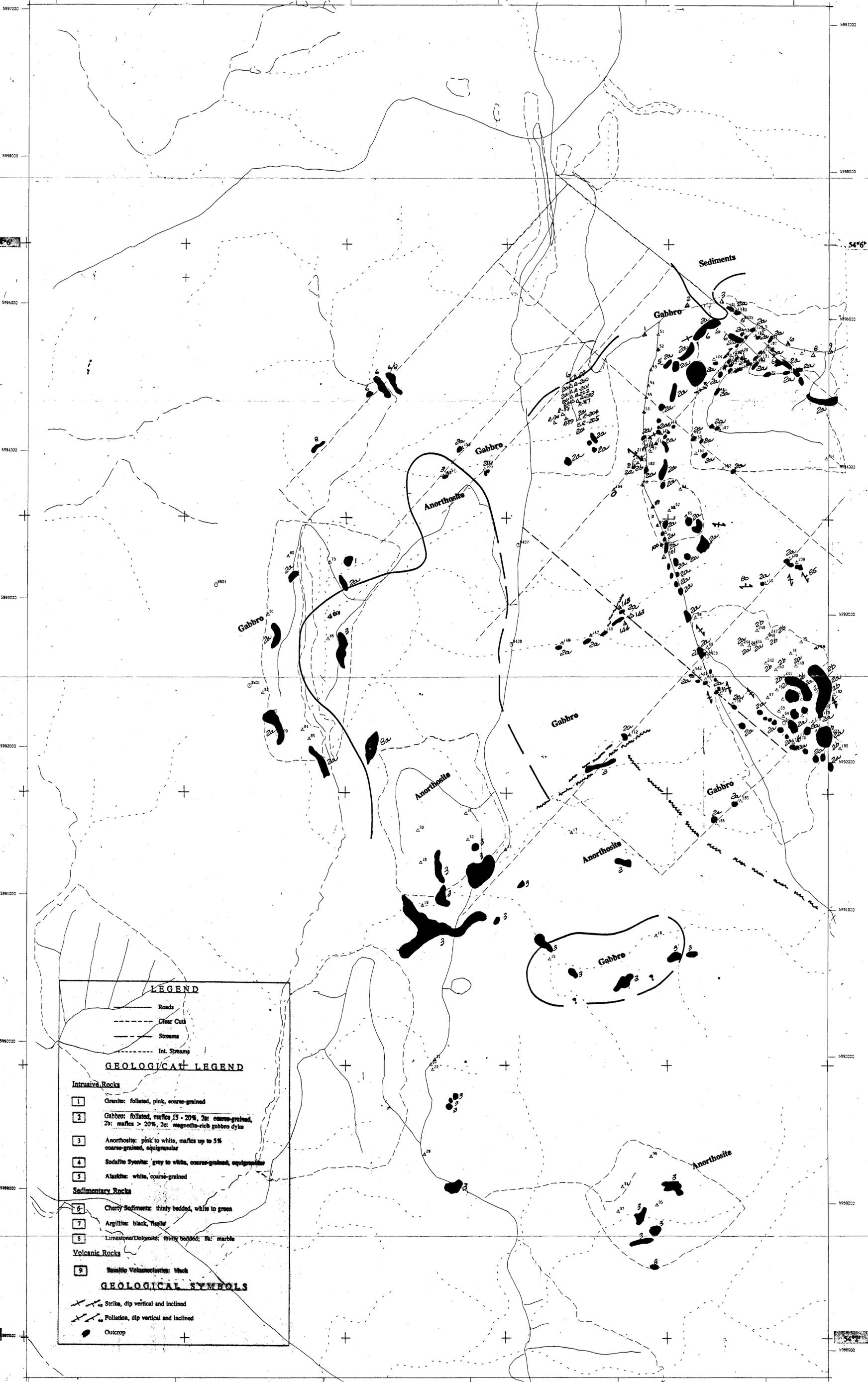
Fig 3

GEOLOGICAL SURVEY BRANCH

26BT ROCK Samples  
NAD-83 East

SCALE 1 TO 10000

26,044



**LEGEND**

Roads  
 Clear Cut  
 Streams  
 Int. Streams

**GEOLOGICAL LEGEND**

**Intrusive Rocks**

- 1 Granite: foliated, pink, coarse-grained
- 2 Gabbro: foliated, mafics 15 - 20%, 2a coarse-grained, 2b: mafics > 20%, 2c: magnetite-rich gabbro dyke
- 3 Anorthosite: pink to white, mafics up to 5% coarse-grained, equigranular
- 4 Sodaite Syenite: grey to white, coarse-grained, equigranular
- 5 Alaskite: white, coarse-grained

**Sedimentary Rocks**

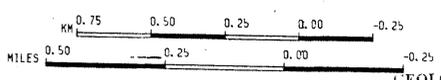
- 6 Cherty Sediments: thin bedded, white to green
- 7 Argillite: black, fissile
- 8 Limestone/Dolomite: thin bedded; 8a: marble

**Volcanic Rocks**

- 9 Residual Volcanoclastics: black

**GEOLOGICAL SYMBOLS**

Strikes, dip vertical and inclined  
 Foliation, dip vertical and inclined  
 Outcrop



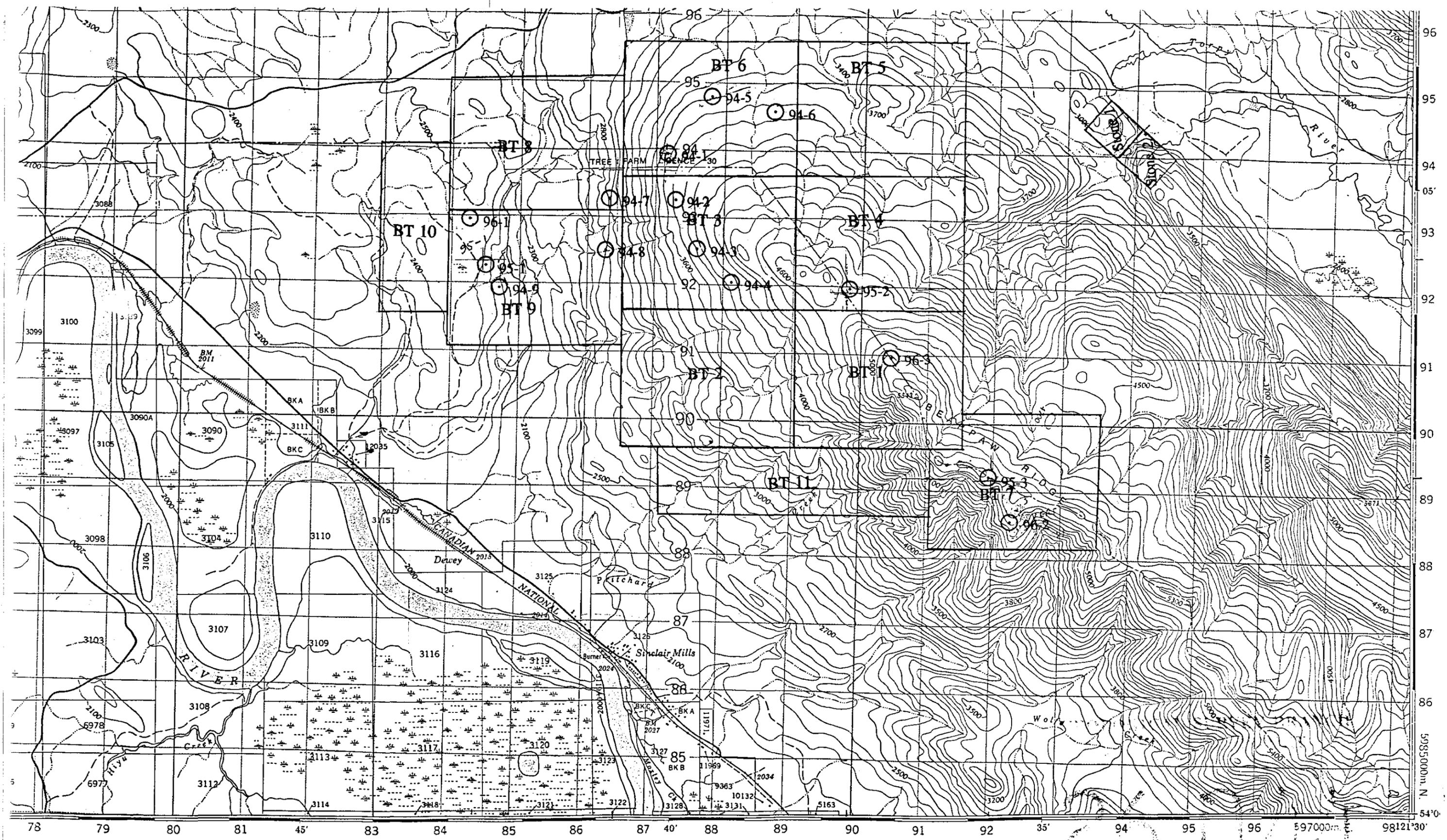
26BT ROCK Samples  
 NAD-83 West

GEOLOGICAL SURVEY BRANCH  
 ANNUAL REPORT

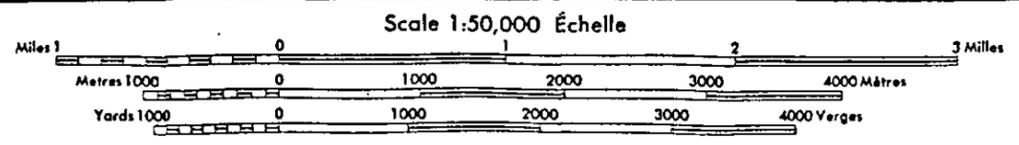
SCALE 1 TO 10000

26,044

F154



**SINCLAIR MILLS**  
 CARIBOO LAND DISTRICT  
 BRITISH COLUMBIA



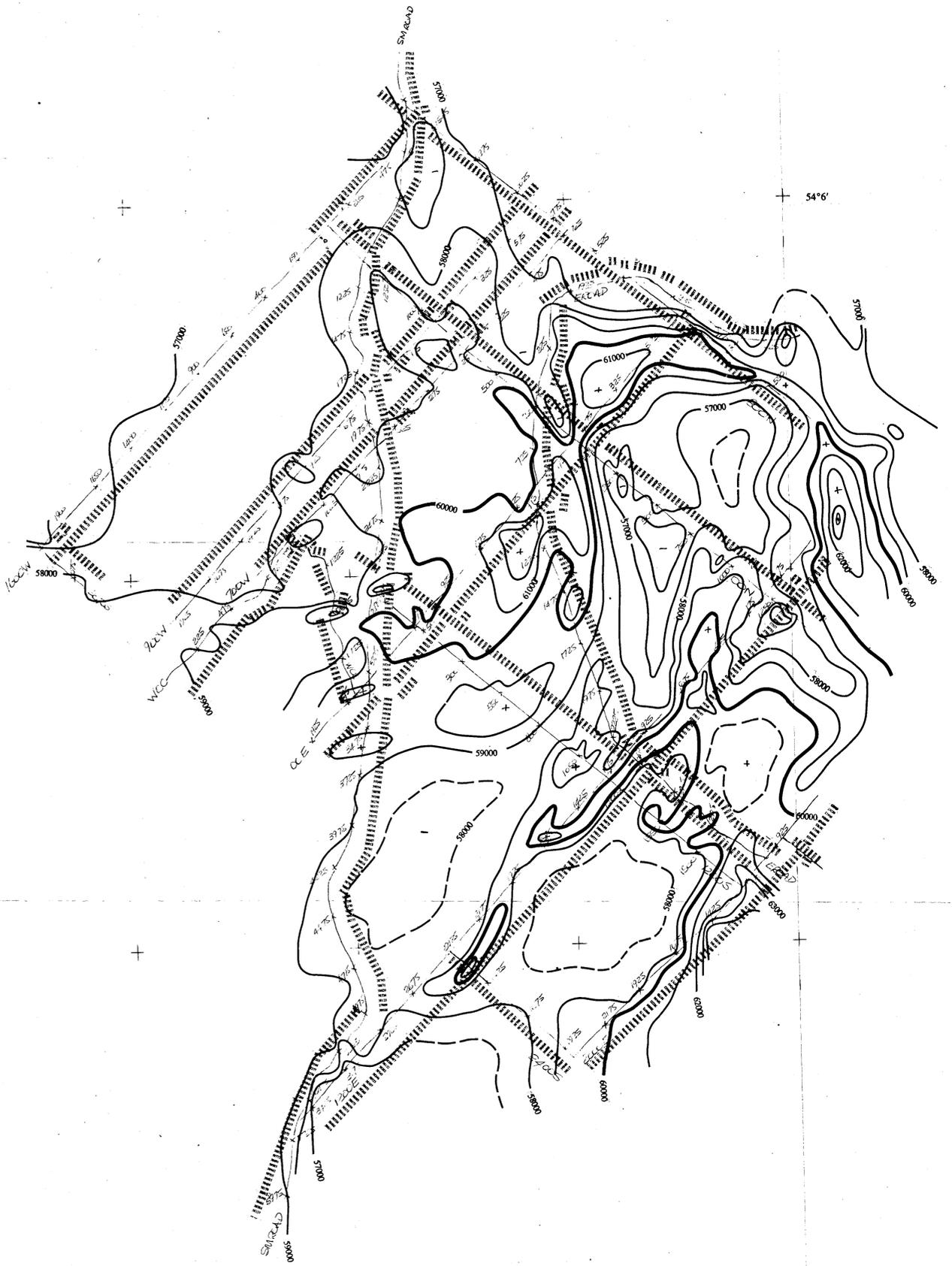
**FIGURE 3**  
**LOCATION OF HOLES DRILLED**

54°6'

54°6'

54°2'

54°2'



GROUND MAGNETIC DATA

contour interval	1000 nT
	5000 nT



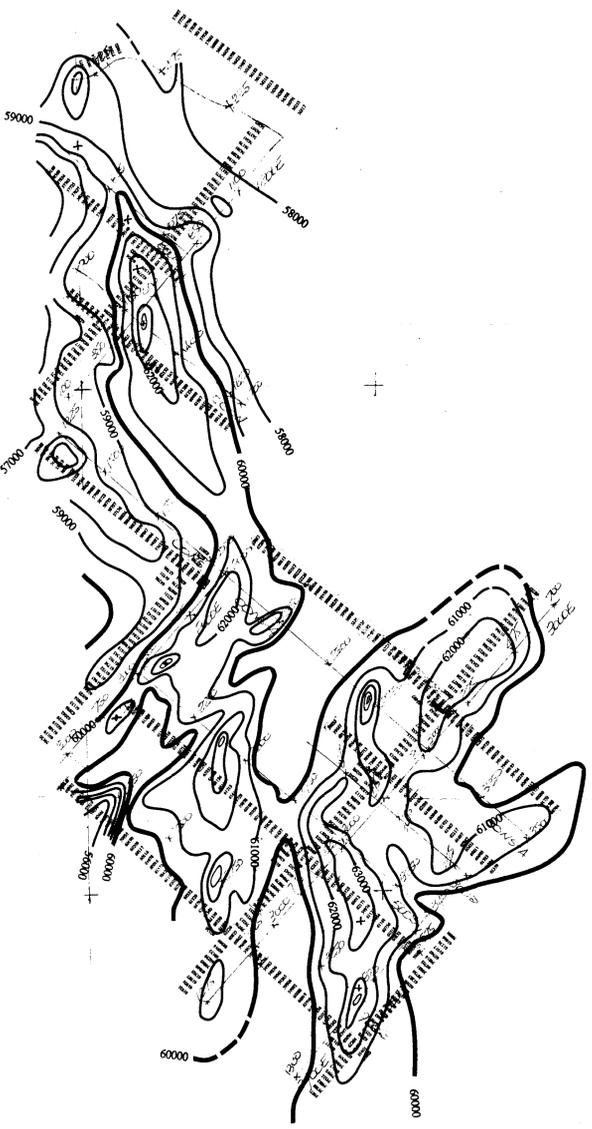
26BT Ground Station

Line locations NAD-83 W.

SCALE 1:10 000

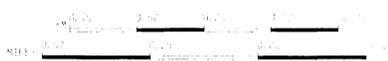
**FIGURE 4A**  
**TOTAL OF MAGNETIC FIELD FROM GROUND MAGNETIC SURVEY,**  
**WESTERN PART**

26,044



GROUND MAGNETIC DATA

contour interval 1000 nT  
5000 nT



26BT Ground Station

Line Locations MB-1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100

FIGURE 4B  
GEOLOGICAL SURVEY TOTAL OF MAGNETIC FIELD FROM GROUND MAGNETIC SURVEY,  
EASTERN PART

26,044