ASSESSMENT REPORT

ON THE

BT 1-11 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

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&

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September 26, 1997 **Calgary, Alberta**

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

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

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

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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.

Claim Name	Tenure Number	Anniversary Date
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

The total area of claim is approximately 75 sq. km.

This report covers claims 1-11 only. Claims 12-19 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_20_3 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_2O_3 content (greater than 10%), magnetite is more than 75% of total Fe_2O_3 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 and 60 stream samples and 109 chip samples. The analysis of this data is currently in progress.

Geology

Following summary of known geology of Bearpaw ridge closely follows the report by Pell (1994). The area is mapped as Silurian volcaniclastics, 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 volcaniclastics whose southeastern extent is not defined. These volcaniclastics "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 two holes drilled in October, 1994 which consist of highly mafic Diorite containing minerals indicative of contact zones. Pell (1994) does not mention this intrusive. Incidentally, the sodalite body mapped by Pell was not encountered in hole 95-3.

Geophysics

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. Therefore, the interpretation reported here is based mainly on magnetic total field. The details of acquisition and preliminary processing are contained in the report submitted by Geonex and included in Kelsch, and Jain (1993).

Geonex had difficulties in positioning of the data. Final data was received in November 1993. Jeff Thurston, M.Sc., of Commonwealth Geophysical Development Company, Ltd. did the processing and interpretation in late November, 1993.

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. See Assessment Report Number 25034.

The survey was conducted to evaluate claims 12 - 21 which are not the subject of this report. 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.

Preliminary Interpretation

Dighem supplied the following maps at a scale of 1:20,000 (see Assessment Report Number 25034):

1. Total magnetic field corrected for diurnal variations but without IGRF correction.

2. Vertical gradient of the magnetic field computed from total magnetic field.

3. Resistivity map from 7200 Hz coplanar data.

4. Resistivity map from 56,000 Hz coplanar data.

The strong magnetic anomaly in the south was observed in the previous survey in claims BT 8 and BT 9. The combination of two data sets defines the anomaly unambiguously and outlines the prospective area for commercial magnetite concentration.

Resistivity maps show numerous conductive anomalies. Most of these anomalies are associated with marsh, lakes and streams. However, a few anomalies are related to faults apparent on the magnetic maps. One of these anomalies parallels a stream located in the magnetic low separating main magnetic mass with northwestern anomaly in claim BT 8. This is being currently analyzed by the geologist.

Processing

The interpretation processing included the following steps:

1. Plot all flight lines on the map to check data tape, and for a base for profile interpretation (Figure 4).

2. Source inversion for all profiles using a Werner-deconvolution-based program **MAGDEP.** To estimate sources at various depth levels, data were interpreted with window length 135, 225, 435, 675, 1170, 2325, 3465, and 5985 m. Sources located within 100 m intervals were grouped together. Werner deconvolution and **MAGDEP** are described in detail by Jain (1976).

3. Grid and plot the total-magnetic field at a fixed contour interval of 100 NT. The map shows a major high (magnitude up to 4500 NT) accompanied by a major low of 1500 NT to the north (Figure 5).

4. Plot the total-magnetic field reduced to the pole (RTP) to minimize the bipolarity of the magnetic field and to locate the anomalies vertically above their sources. This was done after removal of the International Geomagnetic Reference field (IGRF) model (Figure 6).

5. Plot radar altimeter map to show deviation from desired terrain clearance and to estimate the probable effect of these deviations on the total field. The map shows significant deviations in terrain clearance but they do not correspond to any magnetic anomalies. In any event, the most serious deviations are noted in quiet magnetic areas (Figure 7).

6. Plot ground elevation map computed by subtracting radar elevation from barometric elevation, to check for location errors. Final map shows no measurable location errors (Figure 8).

The tie lines are not properly levelled. Therefore, the magnetic data is based on traverse lines alone. The data are dominated by wavelengths shorter than the spacing between flight lines, and a meaningful second derivative map could not be obtained.

Interpretation

The total-magnetic field map is dominated by an elliptical high oriented in the NW - SE direction and its companion low to the north. The total magnitude of the anomaly from peak to trough is 5,700 NT. There are local anomalies with relative amplitudes of 1000 NT , and less than 500 m^2 in aerial extent.

The total magnetic field has an inclination of 72 degrees and declination of 20 degrees east. For these parameters, the observed total field is bipolar and each source is represented by a high along the southern edge and a low along the northern edge. The reduction of magnetic field to the north pole (Figure 6) locates the anomaly vertically above the sources. The positive anomaly in Figure 6 is displaced to the north of its location in total field (Figure 5) and the negative rim is substantially reduced. The negative rim around strong anomalies after reduction to the pole suggest relatively thin sources and sharpness of anomalies indicate them to be close to the surface. **MAGDEP** (Jain, 1976) profiles identify the lateral and vertical location of the sources as well as the susceptibility contrast. As indicated earlier, the profiles show positive anomalies as high as 1,000 NT with wavelength of the order of 250 - 500 m. These anomalies are from highly susceptible sources (susceptibility contrast up to 1 emu) and located on or very close to the ground surface. The depth estimates range from 0 - 300 m below the surface. However, the depth estimates are not entirely accurate because no allowance has been made for the flight level not being horizontal and of the sources finite thickness of the sources.

MAGDEP2D is the modification of **MAGDEP** for the gridded data and works on interpolated profiles in the same way as described in the paper on **MAGDEP** referenced above. The profiles are interpolated for each major anomaly in a direction perpendicular to the strike and interpreted. The source bodies are outlined quite well by the horizontal gradient (Figure 9). The depth estimates range from 200 m - 300 m below the surface and may be inaccurate for the same reasons as the depths estimated in **MAGDEP**. Note that there is a probable extension of the magnetic body to the southwest but the susceptibility is less than the main anomaly. A close examination of the maps and the profiles shows four major bodies which are on or very close to the surface and are very highly magnetic. The interpretation overlay (Figure 10) shows the location of these bodies and identifies places where samples must be collected to establish the source of magnetism. Two of the marked places are identified for deep test because magnetic field is low at these points. It is of some importance to know if the low is due to lower susceptibility or thicker overburden.

Drilling subsequent to the interpretation has established that local variations in magnetite concentration are the main source of local magnetic anomalies.

Modelling

The anomalies were computed for numerous hypothetical two and three dimensional sources. The best fit with the major anomaly was obtained by a trapezoidal rectangular prism oriented in NW - SE direction, 5 km X 3.5 km at the bottom (140 m below surface) and 2 km X 2 km at the top (surface). Susceptibility contrast of this prism from surrounding medium is .05 emu. On the other hand, a prism of the same lateral size but only 45 m thick will cause the same anomaly if susceptibility increases progressively from .025 emu on the edge to 0.175 emu in the centre. In addition, either body needs small sources of high susceptibility contrast to explain high frequency anomalies superimposed on the main anomaly.

An anomaly of 1,000 NT over 500 m (as observed on many profiles) can be caused by a 250 X 250 m ore body located with its top surface 200 m below the flight plane and thickness of 3 m to 30 m for susceptibility range of .5 to .05 emu. To obtain a crude reserve estimate, consider that an ore body with 10 percent magnetite content (density of 5 gms/cc), with an area of one square kilometre and an average thickness of one meter contains .5 million tons of magnetite. Four main ore bodies on this prospect have an area of 19, 3, 3 and 1 sq kms, and *probably contain 13 million tons per meter thickness. For a susceptibility of* .2 emu, the ore bodies are at least 30 m thick and contain probable reserve of 390 million tons.

Reinterpretation of Magnetic Data

Aeromagnetic data was revisited in order to incorporate the results from 15 drill holes and to delineate high susceptibility areas within fifty meters of the surface. The profiles were reinterpreted using MAGDEP program used in previous interpretation but this time with parameter suited to near surface sources. The absence of negatives to the east and the west of the major positive anomaly as well as the depth to the sources suggests that the main anomaly is caused by a plate dipping to the east or south east and thin relative to its lateral dimensions. Variable magnetic content in the plate as well as protrusions in the top of the plate act as the sources for high-frequency anomalies which are identified by MAGDEP. The sources within 100 meters of the flight level and indicating susceptibility greater than 0.05 emu were correlated to define intrusive body shapes. The locations of intrusives with susceptibility contrast of .2 emu or more were transferred to the map. Figure 21 shows the interpreted zones as well as the outcrop locations. A resistivity anomaly from the 1997 survey is also shown. The map also shows the susceptibilities measured in the cores averaged over indicated depths. Fe_2O_3 content in Hole 96-1 located in the southern part of the western anomaly ranges from 20 - 25% corresponding to the susceptibilities of 0.1 - 0.15 emu. Therefore, it is probable that the areas outlined in the map indicate zones where magnetite concentrations average 25% or better over 100 m. It should be mentioned that MAGDEP assumes the sources to be infinite vertically and across the profile. This assumption leads to lower susceptibility estimates than those for sources of finite dimensions. It should be pointed out that while higher susceptibility indicates greater magnetite content, the different core samples with very similar susceptibilities contain widely different amount of Fe_2O_3.

Profiles crossing major anomalies were also modelled for prismatic sources. Prisms were assumed to have flat tops and bottoms and sloping sides. All prisms were square since small anomalies are generally circular on the total field map. In Figure 21, the areas where susceptibility of models is 0.5 and 0.3 emu are shown. Westernmost anomaly was modelled after integrating latest survey. The model was based on the susceptibilities logged in 96-1. The magnetic body is conical with its peak 16 m below the surface. The surface the area of the outcrop would be 0.1875 sq km at the depth of 20 m and 1.75 sq km at 45 m. Hole 96-1 confirms the susceptibility of 0.1 emu for this depth range and indicates average Fe_2O_3 content of 20% and TiO_2 content of 4.8%. After a 20 m thick relatively low susceptibility zone, there is a 30 m thick layer of average susceptibility 0.15 emu and area 4.5 sq km. Fe_2O_3 content in this range is from 20 - 30 % and TiO_2 from 4.8 - 6%. The expected reserves, if zones contain

20% magnetite by weight, are 14.5 million tons in upper zone and 79 million tons in lower zone for magnetite. Assuming 5% titanium ore, reserves are 3.5 and 20 million tons respectively. Hole 96-1 was drilled in the southern portion of the magnetic anomaly and is fully consistent with the model. However, the core analysis from visual examinations indicates magnetite content generally less than 10% and 15 - 20% in only a few instances. This inconsistency is probably due to inaccuracy inherent in visual examination.

Note that the area indicated by the models is significantly smaller than that by Magdep interpretation. It is partly because laterally narrow zones are very difficult to model accurately, our program being restricted to prisms with vertical axes.

Figure 21 indicates two widely different surface dimensions for the source bodies. In all likelihood, modelling provides the minimum extent while Magdep the maximum. With this provision, the maximum extent of all bodies in the main anomaly totals a little over 5 sq km, equivalent to 1,500 million tons of ore with 25% or more Fe_2O_3 and 5% or more TiO_2. The minimum area indicated by modelling is 0.5 and 0.16 sq km for susceptibility of 0.5 and 0.3 emu respectively. This translates into 200 million tons of ore with 25% or better Fe_2O_3 and 5% or better TiO_2. In all reserve calculations, the ore bodies are assumed to be 100 m thick. Holes 96-1 and 95-2 drilled to 92 m encountered good magnetic concentrations to the bottom of the holes.

Correlation of Geology and Geophysics

As discussed earlier, Pell (1994) has noted varying amount of magnetite-ilmenite in hornblende gneiss in the west as well as volcaniclastics on top of the ridge. A comparison of magnetic anomaly map with geology shown in Figure 3 establishes that western anomaly is due to magnetite ilmenite concentration in altered mafic gneiss although the concentration is likely to be greater than that suggested by Pell. The main magnetic anomaly is due to an elliptic intrusive oriented in NW - SE direction with magnetite concentration near the surface. High-frequency anomalies are caused by variations in magnetite concentrations. Higher magnitude of the anomalies strongly suggests that the concentration of magnetite is greater than elsewhere in the area. Two smaller anomalies in the south may be due to either the magnetite-ilmenite concentrations in volcaniclastics or small offshoots of the main intrusive body with lesser magnetite concentration.

DRILLING

9 holes were drilled to a depth of 30.46 m (100 ft) in October 1994 and 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 11. Core diameter was 43 mm (1 ¾"). Hole 7 did not hit the hard rock till it reached the bottom. Susceptibility was measured at 1 ft intervals on the cores and analyzed

for the magnetite content. Two boulder specimens were also collected and later analyzed. The holes were drilled to determine the source of magnetic anomaly and not for details of local geology. Core logs are included with this report. No obvious metals have been noted in the cores. Appendix 1 gives details of the drilling logistics.

CHEMICAL AND MINERALOGICAL ANALYSIS OF CORES

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 and the average recorded.

The samples were chemically analyzed by Terramin Research Labs of Calgary in December, 1994 and August, 1995. The results of their analyses are reported in Table 2 which also lists measured susceptibility. The sample number identifies the hole and depth of sample in feet. Chemical analysis shows consistent level of 40 - 50% silica, 12 - 20% Al_2O_3, 10 - 12% Ca0, 3 - 6% MgO, 2% Na_2O, 0.2 - 0.5% K_2O and 0.1 - 0.3% Mn0. Two samples analyzed for Vanadium gave values of 430 and 450 ppm. Fe_2O_3 content varied from 5% to 36% and TiO_2 content from 1% to 7%. Samples from some holes have copper, nickel, zinc and cobalt content of 0.01 to 0.05% suggesting that there may be more significant concentrations nearby. A small quantity of silver (a fraction of a gram per ton) was also noted. More significant, from commercial viewpoint, may be Barium (0.36%), Chromium (approximately 0.1%) and Vanadium (0.03 to 0.07%) (Appendix 5). High Barium content sometimes indicates proximity to gold and this probability will be investigated next year. In future analyses, these elements will be analyzed in low-susceptibility zones. So far, the analyses shows that Iron and Titanium are main metals of economic interest in the area represented by the cores. Therefore, the following analysis was restricted to these two metals.

MINERALOGICAL ANALYSIS

20 samples from holes BT 4 and BT 5 were analyzed for mineral content by Pilsum Master, P.Geol. (Appendix 2). He identified the rocks tentatively as Diorites (more than 50% mafic) from the contact zone. The minerals are sodic feldspar and plagioclase, diopsidic pyroxene and wollastonite. A major component is magnetite and sufficient titanium is present to indicate the presence of ilmenite. The presence of contact zone minerals is noted. Since both holes are located on slope of the magnetic anomaly, this analysis is consistent with a Diorite or Syenite intrusive being the source of this anomaly. We are not aware of any mention of this intrusive in published literature.

Norm calculations by CIPW method conducted by Master Mineral Resource Services Ltd. for five samples (Appendix 2) shows approximately equal weight distribution in Rutile and Ilmenite in samples with high magnetite concentration. Ilmenite norm is calculated as 4.6% by weight.

Iron minerals are magnetite and Diopside. The norm in magnetite samples varies from 27 - 38% for Diopside and 18 - 38% for magnetite. Magnetite content is only slightly smaller than Fe_2O_3 in chemical analysis.

The magnetic separation of 10 gm samples from holes 94-4 and 94-5 by handheld magnet yielded approximately half of that expected from CIPW norms (Appendix 3). This is not unusual since the norms are useful in a relative sense only. The separates confirm approximately even distribution of Titanium in Rutile and Ilmenite indicated by CIPW norms (Table 3). This table shows that upto 10% Fe is present in Magnetite form. Ore grade magnetite can be recovered by first separating magnetic material from plagioclase and Diopsides and then separating ilmenite and magnetite in the magnetic separates.

The magnetic separation in 46 samples from deep holes was done after placing the ground sample in water. The analysis (Appendix 4) shows Iron content of upto 65% (Magnetite 91%) in magnetic separates and 20% (28% magnetite) in core sample. The magnetic iron content is about 50 - 70% of total iron in samples, rest probably in Pyroxenes. Probably, a better Ti magnetite separation method will yield higher magnetite content. Titanium content of magnetic separate ranges from 3.2 - 7% which is equivalent to TiO_2 being 0.2 - 2.8% of the sample. This shows that non magnetic TiO_2 (Rutile?) is two to five times of magnetic TiO_2 (Ilmenite). Small TiO_2 in magnetic separates indicates that most iron in separates is magnetite with very small amount of Ilmenite.

Magnetic Susceptibility Analysis of the Cores

Magnetic susceptibility was measured at one foot interval for the cores and two boulders found near one of the holes. The magnetic susceptibility logs are plotted in Figure 12. The susceptibility was measured by a susceptibility meter purchased by 26BT for this purpose. The meter, model KT-9 is manufactured by Exploranium Radiation Systems.

We are aware of two studies relating magnetic susceptibility to magnetite content. Note that the susceptibility studies do not include all iron ore since Hematite is only weakly magnetic and hematite rich ores have low susceptibility. Gaucher (1965) presented the equation between maximum magnetite content (by volume, computed from density) V and susceptibility K as follows:

$$K = (0.3 + V) * V.$$

This equation was derived empirically for magnetite ores in northern Quebec. Bath (1962) similarly computed the relationship for Biwabik Iron formation in Minnesota. The relationship derived for Biwabik iron ores is:

$$K = 0.00116V^{1.39}.$$

The volume was computed by magnetic separation. We used both equations to plot magnetite content for the holes. The equation given by Gaucher (1965) had to be modified to avoid negative volume content. The magnetite content logs are given in Figures 13 and 14. Both equations show several sections on many of the holes where magnetite content is more than 20%. In some holes, there is indication of better magnetite content near the bottom. Table 3 gives the average susceptibility and average magnetite content for the holes with both equations.

The equation for Biwabik ores provides smaller magnetite content than the one for northern Quebec. However, both equations suggest presence of mine grade ore in many holes. These results are most encouraging particularly considering that the hole locations in 1994 were governed by accessibility and were not optimal from the magnetic anomaly. There are many stronger anomalies on the map which need to be tested.

The susceptibility of the samples measured in the laboratory was quite different from that recorded in field at the corresponding depth in the hole (Figure 12). Figure 15 shows a plot of susceptibility measured in laboratory (sample value; y -axis) vs that measured in the field (log value; x-axis). The plot symbol indicates the depth of the sample in units of 10 feet (3.282 m). The slope of fitted line indicates that on average the sample value is 77% log value. There is no apparent depth deviation in this relationship. The cause of this reduction is not known and was not investigated.

As indicated above, Terramin Research Laboratories of Calgary, Alberta separated the magnetic component in powdered core sample and calculated Iron and Titanium content for 46 samples (Appendix 4). The amount of iron in the separate was converted into percent content in the sample and plotted vs the susceptibility of the sample (Figure 16). This plot shows a reasonable correlation and following equivalent relationships were deduced from the plot

$$\text{IRON} = .07538 * \text{Susceptibility of sample}$$
$$\text{IRON} = .05804 * \text{Susceptibility in log}$$
$$\text{MAGNETITE} = .08126 * \text{Susceptibility in log}$$

Based on the last relationship, magnetite content from fifteen holes (including 1996 drilling) was estimated as shown in Figure 17. There is considerable variation among holes, even within the same hole. 95-1, 95-2, 94-3, 94-1, 94-4, and 96-3 show thick zones where magnetite concentration is of commercial interest. Note that the concentration is significantly less than anticipated in Figures 13 and 14. Whether this is due to poor magnetic separation method, significant presence of nonmagnetic ferrous oxide ore or iron silicates has not yet been established. Note that the magnetite content is still high at the total depth in many holes.

The plot of TiO2 content from chemical analysis vs susceptibility (Figure 18) is quite random indicating that the susceptibility is not influenced by titanium minerals in the samples.

Reserve Estimates

Magnetite:

Table 5 shows residual magnetic total field reduced to the pole, average magnetite recovery in percent and average susceptibility for the length of the core. Figure 19 is the plot of magnetite content vs magnetic field. Hole 94-2 was inconsistent with other holes and was dropped. In spite of a wide scatter, it is possible to fit a second degree curve among the points. The equation of this curve is:

$$\text{Magnetite content} = a + b * F + c * F^2$$

where F is the total field, $a = 0.397$, $b = 1.148 * 10^{-3}$ and $c = 9.437 * 10^{-8}$.

None of the holes is located on or near the peak of the anomalies and three points with high magnetic values show considerable divergence. Therefore, this equation can only provide crude estimates. The recoverable magnetite content computed from this equation and the magnetic field is shown in Figure 20. On this map, 5 and 4% contours include areas of 2.5 and 6.25 sq km respectively. If the average depth of ore is 300′ as indicated by 95-1 and 95-2, there is 62 million tons of recoverable magnetite in 5% zone and additional 75 million tons in 4% zone. Following observations need to be emphasised:

1. Laboratory analysis shows that Iron content in ore after magnetic separation ranges from 40 - 65%.

2. The areas with smaller average content not included in these calculations are likely to have rich zones to supplement these estimates.

3. The deep holes indicate that reserves are present below 300′.

4. Weakly magnetic iron ores have not been included in these estimates.

5. Western magnetic anomaly is located at the junction of two surveys. Its areal extent is slightly larger to the west than assumed in these calculations.

Another estimate of magnetite reserve may be obtained from correlation of magnetic data interpretation with hole data. The bands of variable concentration of magnetite are present at different depths in different holes. 95-2 has poor concentration from top of the core to 90′ but very rich (upto 25%) zones below that to 300′. In 95-1, rich zones start at 30′ and continue to 300′ with many intercalated poor zones. 84-1 and 84-4 have better than 4% magnetite from the top while in 84-6 and 84-8 rich zones start at 40′ and 80′ respectively. Depth to source is also obtained from magnetic profiles as described under the title Geophysics-Interpretation. After combining magnetic profile interpretation with hole data, a map shown in Figure 20A was obtained. The depth to top of magnetite increases to the southwest as the ground elevation increases. The thickness of magnetite must also increase in this direction to account for higher magnetic field.

On the map in Figure 20A, an area of 10 sq km averages magnetite content of 3% or more from the cores. This is equivalent to 150 million tons of recoverable magnetite. This estimate is quite close to the one made in the previous paragraph.

In view of scant drill hole information and scatter in various curves used in estimation process, it is reasonable to put the reserves in a rather large range of 100 - 200 million tons. The ore is contained as 40 - 63% iron in magnetic separate which constitutes 2 - 25% rock mass. Any weakly magnetic iron oxides are additional to these estimates.

Titanium:

As indicated above, chemical analysis shows that magnetic titanium (ilmenite) is present in quantities which range from 10 - 20% of recoverable magnetite and that two to five times the amount of non magnetic titanium (Rutile) is present. Therefore, assuming recoverable magnetite reserve of 130 m tons, there is a strong indication of 13 - 25 m tons of Ilmenite and 25 - 100 m tons of Rutile.

While smaller than indicated by magnetic modelling, the estimated reserves are capable of commercial production for more than a hundred years. It should be noted that the overburden has been neglected in calculations even though the surface samples picked up on various occasions indicate high magnetite concentration.

Sulphide Ores:

The chemical analysis of a sample from 95-3 has zinc concentration of .01% (Appendix 5). While this is negligible in itself, a review of VLF-EM data collected with aeromagnetic survey in 1993 (Figure 20B) shows two strong anomalies near the hole (and five others) which may be caused by concentrations of disseminated sulfide minerals. The depth, amount or exact nature of these ores is not indicated by the data. However, anomalies are of great interest because their shape and location correspond closely to topographic features and they occur at the rim of major magnetite-rich intrusives. A surface sample was taken from the western anomaly near the airstrip during the field visit in October 1995. It is noteworthy that the strongest EM anomaly is located 500 m south of 95-3 and well within 26BT claims. Four other EM anomalies are also located in the claimed area.

Appendix 6 is the result of Chemical analyses of several core samples, one from 95-3, seven from 94-8, surface samples from western E-M anomaly (E-W1-2.5 and E-W2-2.3), western magnetic anomaly (MWS) and one from the creek between holes 94-3 and 94-4 (SS-3-4). The analyses show magnetite and Titanium concentration in magnetic area, higher zinc in 95-3, but no indication of sulphide concentration over western E-M anomaly. Further investigation of these anomalies proved discouraging.

Geological review of the 500′ deep hole drilled to test the strongest anomaly does not provide any encouragement.

CONCLUSIONS AND FUTURE WORK

Geological analysis of available report, geophysical work, drilling of fifteen holes and core analysis from the holes indicate the probability of a large reserve of magnetite, ilmenite and rutile in the prospect area. The investigation so far has concentrated on magnetite and titanium. Next stage of exploration will expand the investigation of the concentration of iron and Titanium minerals and also explore for sulphide minerals.

A detailed review of data collected so far and surface geology was conducted in the summer of 1997 by an experienced mining geologist who is currently finalising his study and preparing the report.

Future work will be determined based on the recommendations contained in geologist report.

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HOLE 94-1 DESCRIPTION

43 mm Diamond Core. Hole Inclined 090 degrees (vertical). Drilled to ~ 33 m (100'). Approx. collar elevation is 3620'. Near full recovery of 32.1 m in 6 boxes.
Casing at 15' (4.57 m). Minor core rubble at the top.

Depth (m) Interval	Thickness Interval	Letter Designation	Description

Start 15' (4.57 m)
0.55 m=17' 1.75 m=21' 3.07=27' 5.47=30' (9.14 m)
4.57 - 12.44 7.87 m DG Biotite Syenite. Mesocratic, coarse crystalline, well foliated. Not porphyritic. Rare healed epidote fractures. Anhedral very coarse crystalline biotite. Very rusty, very common limonitized fractures causing much rubble in the interval.

0.66=38' (11.58 m)
7.87 - 11.58 2.02 m DH As Unit DG Biotite Syenite but with more mafics; meso - melanocratic. Minor fracturing, very minor rubble in the interval.

11.58 - 12.28 0.70 m DI Magnetic Melanocratic Bi Syenite. Medium crystalline. Common very fine crystalline *pyrrhotite* (reacts with dilute HCl) as a late stage interstitial sulphide. Contributes to susceptibility measurement BT 1-45.

1.73=48' 5.25=58' (17.68 m)
12.28 - 20.58 8.30 m DJ As Unit DG Biotite Syenite. Melanocratic to mesocratic, equigranular, coarse crystalline. Faint igneous foliation. Competent. Approx. 10 - 15 % magnetic opaques.

0.34=68' (20.73 m)
20.58 - 21.58 1.00 m DK Leucocratic Syenite. Dark grey speckled off white. Diffuse feldspar rich bands are intermixed with minor amounts of the above Biotite Syenite. Megacrystic, little opaques.

2.82=78' 6.30=88' (26.83 m)
21.58 - 29.01 7.43 m DL Melanocratic Biotite Syenite. Diffuse off white coarse crystalline leucocratic feldspar layers are intermixed with very common schlieren bands. Minor epidote occurs in very common healed, epidotized fractures.

29.01 - 29.40 0.39 m DM Pelitic Xenolith. A dark grey fine crystalline pelitic inclusion. Possibly the original lithology was a shale or mudstone (argillite).

1.54=98' (incorrect marker)
29.40 - 32.10 2.70 m DN. As Unit DJ Melanocratic Biotite Syenite. Same texture, with a faint igneous foliation. Same magnetic susceptibility 43 e.m.u.

End Core 94-1

HOLE 94-2 DESCRIPTION

43 mm Diamond Core. Hole Inclined 090 degrees (vertical). Drilled to 30.48 m (100'). Approx. collar elevation 3700'. Casing at 10' (3.05 m). Near complete recovery of 30.48 m in 6 boxes. Some core rubble at the top.

Depth (m) Interval | Thickness Interval | Letter Designation | Description

Start 10' (3.05 m)
3.05 - 3.36 0.31 m DO Glacial erratic of melanocratic, well foliated Hornblende Syenite. Coarse crystalline, not porphyritic. Mostly rubble.

3.36 - 3.75 0.39 m DP Hornblende Syenite. Mesocratic, coarse crystalline, mafics ~ 25%, equigranular, very well foliated. The foliation is *a metamorphic* feature (not an igneous crystal cumulate layering texture). A single high angle fault in the midsection of the interval. Opaques ~ < 5%.

2.35=18' (5.49 m)
3.75 - 6.45 2.70 m DQ as Unit DO but more mafic ~ 35%. Two epidote healed fractures with open mm sized vugs occur.

6.45 - 8.18 1.73 m DR Mesocratic Hornblende Syenite as Unit DP. Off white, with common epidote veinlets and diffuse epidote rich schlieren. Competent. Approx. 10 - 15 % magnetic opaques.

1.33=28' (8.54 m)
8.18 - 9.51 1.33 m DS Mesocratic Hornblende Syenite. Grading from the above with v common epidote - potassium feldspar schlieren: diffuse light green - off white bands from the high temperature reaction of (possibly carbonate rich) inclusions.

9.51 - 11.91 2.40 m DT Mesocratic Hornblende Syenite as Unit DR. With a very common light green disseminated mafic mineral, possibly actinolite - tremolite. Uncommon epidote stringers.

11.91 - 12.52 0.61 m DU Alkalic Syenite. Very fine - very coarse crystalline. *Not foliated*. Green actinolite and black aegerine (sodium pyroxene) needles in an inequigranular potassium feldspar rich, felted matrix. Possibly from the complete absorption of an inclusion at very high temperatures. Texture is typical of alkalic rocks.

12.52 - 13.99 1.47 m DV As Unit DT with the bottom part of interval rusty and fractured. Very common disseminated actinolite - tremolite?. Uncommon schlieren as Unit DS.

2.00=48' (14.63 m)
13.99 - 16.97 2.98 m DW As Unit DV but more mafic; 40- 50 % mafics mostly amphibole. Fractured and rusty in midsection.

16.97 - 17.60 0.63 m DX Melanocratic Hornblende Syenite with three cm sized bands of epidote - potassium feldspar schlieren.

1.63=58' (17.68 m)
17.60 - 21.98 4.38 m DY As Unit DV Leucocratic - Mesocratic Hornblende Syenite. Coarse - very coarse crystalline, very well foliated, actinolite to ~25 % and black hornblende to ~ 30%.

3.40=78' (23.78 m)
21.98 - 27.32 5.34 m DZ Mesocratic Hornblende - Actinolite Syenite. Well foliated, mineralogical banding on a 10 cm - sized scale. Rare epidote veinlets infilling fractures. Similar to Unit DY.

1.14=88' (26.83 m)
25.39 - 28.15 2.76 m EA Mesocratic Hornblende - Actinolite Syenite. As above Unit DZ but partly with more mafics; one 5 cm sized band of calc-silicates.

1.60=98' (29.88 m)
28.15 - 29.51 1.36 m EB Leucocratic Actiolite - Hornblende Syenite. Actinolite ~ 25 % with < 10 % black hornblende. Typical metamorphic foliation at moderate angles to the core.

0.97=100' (30.48 m)
29.51 - 30.48 0.97 m EC As Unit EA Mesocratic Hornblende - Actinolite Syenite.

End Core 94-2

HOLE 94-3 DESCRIPTION

43 mm Diamond Core. Hole Inclined 090 degrees (vertical). Drilled to ~ 33.0 m (108.3'). Casing at 1' (0.30 m). Approx. Collar elevation 4080'. Full recovery of 33 m in 6 boxes. Some core rubble in the upper intervals.

Depth (m) Interval	Thickness Interval	Letter Designation	Description

Start 1' (0.30 m) 2.71=13' (3.96 m)
0.30 - 6.14 5.84 m ED Mesocratic biotite - hornblende Anorthositic Syenite. Unfoliated and massive; partly with a faint igneous flow ? foliation. Medium to coarse crystalline, not porphyritic, mafics ~ 45 %. Very competent. Faint blue - grey larvikitic alteration of the plagioclase. Disseminated opaques to ~ 20 %; very uncommon one - cm sized magnetitite laminations in midsection, esp. at 1.85 - 2.10 m. Also in midsection a 35 cm sized rusty fault gouge; at 3.64 m depth is another rusty fault gouge. No pyrrhotite observed. Gradational to

1.66m=28' (8.53 m)
6.14 - 9.67 2.40 m (poor recovery) EE Foliated Hornblende Syenite. Mesocratic, very coarse crystalline, mafics ~ 25%, very well foliated - *a metamorphic foliation (*not an igneous crystal cumulate layering texture). Incompetent, much rubble and poor recovery. Opaques ~ < 5%.

2.11=38' (11.58 m)
9.67 - 14.15 4.48 m EF as Unit EE Foliated Hornblende Syenite but more competent; with common chlorite and epidote healed shear planes especially at the base .

0.19=48' (14.63 m)
14.15 - 14.63 0.48 m EG as Unit EF with a prominent high angle chloritized slickenplane with slickenlines - a fault surface.

14.63 - 17.59 2.96 m EH as Unit EE Foliated Hornblende Syenite.

0.36=58' (17.68 m)
14.63 - 17.68 1.54 m (poor recovery) EI as Unit EE Foliated Hornblende Syenite. An incompetent well fractured interval. < 15 % opaques.

17.68 - 20.90 3.22 m EJ as Unit EI Foliated Hornblende Syenite. Common actinolite veining along healed fractures; also three 35 - 40 cm bands of off white (albitic plagioclase) to pale green (actinolite - tremolite) speckled black (mafics) absorbed inclusions. A slight foliation of the inclusions is evidence of a *post-intrusive* metamorphic foliation. Competent, coarse crystalline, a rather uniform unit. No epidote.

20.90 - 22.30 1.40 m EK Argillic altered Hornblende Syenite. Intensely to slightly altered. Soft, off white, friable and incompetent, mostly rubble.

22.30 - 23.43 1.13 m EL Inclusion - rich Hornblende Syenite. Coarse crystalline to megacrystic. As Unit EJ with very abundant inclusions. Fractured and incompetent.

0.82=78' (23.78 m)
23.43 - 25.38 1.95 m EM As Unit EK Argillic altered Hornblende Syenite with slight to moderate alteration. Incompetent, mostly rubble .

25.38 - 27.88 2.50 m EN Melanocratic Hornblende Syenite. Well foliated, more mafics than the above Units. Well fractured.

27.88 - 30.57 2.69 m EO Melanocratic Magnetite Anorthosite. Very dark bluish grey, very fine - medium crystalline, with disseminated opaques to ~ 20%. Massive and competent. Very common wispy schlieren of the well foliated Melanocratic Hornblende Syenite - thus this Anorthosite Unit and Unit ED are ***separate phases of the Hornblende Syenite intrusion - later differentiates.***

30.57 - 31.60 1.03 m EP as Unit EL Inclusion - rich Hornblende Syenite. Megacrystic, well foliated, fractured.

EQ 0.50=98'
31.60 - 33.03 (108.3') 1.43 m (to 100' mark) Undefined Ultramafic Rock: possibly Hornblende Lamprophyre. Abundant fine to very coarse crystalline hornblende phenocrysts. Very dark brown black, foliated with some slickenplanes or shears. Soft, dark olive green alteration on the many fracture surfaces. Very incompetent - mostly rubble. A thin section is needed to accurately describe the lithology.

End Core 94-3

HOLE 94-4 DESCRIPTION

43 mm Diamond Core. Hole Inclined 090 degrees (vertical). Drilled to ~ 34 m (112'). Approx. collar elevation 3990'. Casing at 5' (1.52 m). Near complete recovery of 34.19 m (112.1') in 6 boxes. Some rubble at the top.

Depth (m) Interval	Thickness Interval	Letter Designation	Description

Start 5' (1.52 m)
1.15=9' 3.51=15' 5.28=23' 8.47=28' (8.53 m)
1.52 - 12.89 11.37 m ER Mesocratic Biotite - Hornblende Syenite. Well foliated, very coarse crystalline, marginally porphyritic plagioclase, mafics ~ 65%. Partly fractured with black chloritic alteration; generally competent. Disseminated opaques < ~ 15 %

0.78=38' (inaccurate mark) (11.58 m)
12.89 - 14.61 1.72 m ES as Unit ER Mesocratic Biotite - Hornblende Syenite but with slightly less mafic mineral content ~ 55%. Well foliated, porphyritic with very coarse crystalline feldspar phenocrysts.

0.36=42' 2.49=48' (14.63 m)
14.61 - 17.84 3.23 m ET as Unit ER Mesocratic Biotite - Hornblende Syenite with more opaques - interstitial magnetite to 25%. Very coarse crystalline to megacrystic. Rare megacrysts of anhedral poikilitic biotite. A band of black chloritic fault gouge occurs at the top for 0.36 m.

17.84 - 19.69 1.85 m EU Magnetite Shonkinite. Fine to coarse crystalline with massive appearance. Evenly disseminated opaques (BTS 52 100 e.m.u.). Includes a cm sized bleb of Unit ET *(thus the Magnetite Shonkinite is a late igneous differentiate).*

0.78m=58' 4.01=68' 7.20=78' (23.78 m)
19.69 - 28.09 8.40 m EV Melanocratic Shonkinite Porphyry. Uncommon plagioclase phenocrysts in a fine to medium crystalline matrix. Faint metamorphic foliation, indistinct igneous foliation, rare anhedral cm sized poikilitic biotite megacrysts. Disseminated opaques ~ 20 - 25 % as magnetite and ilmenite (BT4-71 83.8 e.m.u.). Very competent.

28.09 - 28.44 0.35 m EW as Unit EU Magnetite Shonkinite. Fine to medium crystalline, massive appearance with mm sized laminations. Rare anhedral cm sized poikilitic biotite megacrysts. Very competent ~ < 35 % opaques. Smaller amount of plagioclase phenocrysts than Unit EV.

1.63=88' 4.72=98' (29.88 m)
28.44 - 34.19 (112.1') 5.75 m EX as Unit EV Magnetite Shonkinite but with characteristic, more abundant (though uncommon) anhedral cm sized biotite poikilitic megacrysts, approx. 2% of the unit.

End Core 94-4

HOLE 94-5 DESCRIPTION

43 mm Diamond Core. Hole Inclined 090 degrees (vertical). Approx. collar elevation is 3630'. Casing at 10' (3.04 m). Drilled to ~ 34.5 m (113'). Full recovery of 34.45 m (= 113') in 6 boxes. Some core rubble increase the core length.

Depth (m) Interval | Thickness Interval | Letter Designation | Description

Start 10' (3.04 m)
3.04- 3.94 0.90 m EY Mesocratic Syenite. Unfoliated, variably coarse crystalline to megacrystic with euhedral alkalic amphibole megacrysts. 'Felted' igneous texture with euhedral undetermined mafic minerals. Mafics ~ 75 %. Incompetent; much rubble in the interval.

3.94 - 5.28 1.34 m EZ 'Alaskite'. A leucocratic 'flow press' differentiate with *no mafic minerals*. Composed of flesh pink medium - coarse crystalline potassium feldspar crystals with uncommon very coarse sized very light grey albite phenocrysts. Some core rubble. No opaques present.

0.92=18' 4.58=28' (8.53 m)
5.28 - 12.94 7.66 m FA as Unit EY Mesocratic Syenite. Generally megacrystic with cm - sized euhedral mafics. Uncommon pistachio - green epidote segregations in the matrix. Rare miarolitic vugs in mid section. Opaques < 5%.

0.38=38' (inaccurate mark) (11.58 m)
12.94 - 15.12 2.18 m FB Mesocratic Syenite. Like EY above but fine to coarse crystalline with rare mm sized white felsic (potassium feldspar?) veins. Rare mm sized miarolitic cavities.

1.44=48' (inaccurate mark) (14.63 m)
15.12 - 16.56 1.44 m FC as Unit FA Megacrystic Mesocratic Syenite .

3.53=58' (17.68 m)
16.56 - 21.85 5.29 m FD like Unit FB Mesocratic Syenite. Fine to coarse crystalline. Similar in mineralogy to the megacrystic Mesocratic Syenite but with finer crystal size. No miarolitic cavities. The lower part of the interval is completely gradational to the megacrystic Mesocratic Syenite Unit.

1.54=68' (inaccurate mark) (20.73 m)
21.85 - 23.60 1.75 m FE Intermixed fine crystalline and megacrystic Mesocratic Syenite. The megacrystic unit intrudes bands of the fine crystalline Unit; *so it is younger*. Competent and uniform except for this remarkable grain size variation.

2.97=78' (23.78 m)
23.60 - 29.73 6.13 m FF Mesocratic Syenite. An igneous cooling unit with abundant miarolitic vugs for 6 cm at the top of the Unit. The unit grades from coarse crystalline at the top to very fine crystalline at the base. The lower part of the interval has three megacrystic mesocratic 'xenoliths' incorporated in the Mesocratic Syenite. Unaltered (as is the rest of this hole). Very competent.

0.54=88' (inaccurate mark) (26.83 m)
29.73 - 32.07 2.34 m FG Mesocratic Syenite. Megacrystic at the top grading to coarse crystalline at the base. Rare cm sized poikilitic texture of the anhedral mafic minerals. No inclusions; a very competent unit.

2.22=100' (but actually 34.45 m = 113')
32.07 - 34.45 2.38 m FH Mesocratic Syenite. Megacrystic. Rare thin epidote veining.

End Core 94-5

HOLE 94-6 DESCRIPTION

43 mm Diamond Core. Hole Inclined 090 degrees (vertical). Approx. collar elevation is 3880'. Casing at 5' (1.52 m). Drilled to ~ 30.48 m plus (over 100'). Recovery of 36.37 m (abundant core rubble) in 7 boxes.

Depth (m) Interval	Thickness Interval	Letter Designation	Description

Start 5' (1.52 m)
1.52 - 2.44 0.92 m FI Hornblende (?) Ultramafitite. Very dark grey green, with hairline chlorite along fractures forming a network 'lace' texture. No feldspar phenocrysts. Medium to coarse crystalline. Mafics ~ 97 %. Incompetent; all rubble.

2.44 - 3.73 1.29 m FJ 'Alaskite'. A leucocratic 'flow press' differentiate with *no mafic minerals*. Dominately flesh pink coarse crystalline potassium feldspar with common hairline chlorite- epidote fractures. Slight argillic alteration gives the Unit a crumbly aspect. All core rubble, *no opaques.*

0.21=8' (2.44 m) (interval thickness is too long due to rubble)
2.44 - 5.00 2.56 m FK Ultramafitite as Unit FI. Rare coarse sized feldspar phenocrysts. Generally broken core rubble. Magnetite would be completely altered; Opaques < 5%.

5.00 - 5.98 0.98 m FL 'Alaskite' as Unit FJ.

5.98 - 6.61 0.63 m FM Hornblende (?) Ultramafitite as Unit FI with common very coarse sized feldspar phenocrysts.

0.48=18' (5.48 m)
6.61 - 7.67 1.06 m FN 'Alaskite' as Units FL and FJ. Toward the base is a 25 cm sized inclusion of Ultramafitite. At the base the Alaskite is vuggy with common miarolitic cavities.

3.20=28' (8.53 m)
7.67 - 11.92 4.25 m FO Melanocratic Hornblendite. Approx. 15% coarse sized feldspar phenocrysts. Distinct hi angle metamorphic foliation. Common thin chlorite- epidote veins.

11.92 - 13.07 1.15 m FP 'Alaskite' as Unit FN laced with sub mm sized epidote - chlorite veinlets. V competent, unaltered.

1.09=38' 4.52=48' 2.59=57' 2.95=58' (17.68 m)
13.07 - 21.56 8.49 m FQ Melanocratic Hornblendite as Unit FO. Moderate to high angle foliation. Uncommon mm sized chlorite-epidote veins infill healed fractures. Toward the base in box 3 is a 25 cm sized chloritic band (possibly from an incorporated inclusion).

21.56 - 22.27 0.71 m FR Melanocratic Hornblendite as Unit FO. Medium grey, more altered with a pervasive soft off white talc ? alteration.

6.26=78' (23.78 m)
22.27 - 28.49 6.22 m FS Melanocratic Hornblendite as Unit FR above; less off white alteration. Uncommon medium crystalline cm sized bands with no feldspar phenocrysts. Very rare epidote - chlorite veining. Uncommon 2 mm sized vertical calcite veinlets.

28.49 - 29.37 0.88 m FT Melanocratic Hornblendite. Dark grey brown to dark grey green, medium crystalline with no feldspar phenocrysts. Very common mm sized chlorite- epidote veins infill healed fractures.

2.30=88' 5.49=96' 7.00=100' (30.48 m) (interval thickness too long due to rubble)
29.37 - 36.37 7.00 m FU Melanocratic Hornblendite. Same lithology and texture as Unit FQ.

End Core 94-6

HOLE 94-7 DESCRIPTION

43 mm Diamond Core. Hole Inclined 090 degrees (vertical). Drilled to ~ 33 m (100'). Approx. collar elevation is 2810'. Casing @ 5'
No bedrock was recovered; very poor recovery of loose and very friable light brown glacial till. Composed of varied unsorted cobbles of varicolored alkalic rocks in a sandy and clayey matrix. 2 boxes.

HOLE 94-8 DESCRIPTION

43 mm Diamond Core. Hole Inclined 090 degrees (vertical).
Approx. collar elevation 2695'. Casing at 5' (1.52 m).
Drilled to 100'.
Full recovery of 30.97 m (101.58') in 6 boxes.

Depth (m) Interval	Thickness Interval	Letter Designation	Description

Start 5' (1.52 m). 1.43 m of drift from 1.52 - 2.95 m.

0.47=13'
2.95 - 3.42 0.47 m FV Actinolitic Hornblende - Biotite Syenite. Mesocratic, well foliated: striped off white, black, and very dark grey green. Common interstitial pistachio green epidote. Coarse crystalline. Mafics ~ 55 %. Competent; good core recovery. Opaques < 10%.

0.68=18' 2.80=24' 5.52=32' (9.75 m)
3.42 - 9.46 6.04 m FW Actinolitic Hornblende - Biotite Syenite. As above Unit FV but the upper half of this interval is well fractured with intense argillic alteration: a fault is present. *No opaques.*

0.92=37' 3.70=44' (13.41 m)
9.46 - 14.38 4.92 m FX as Unit FV Actinolitic Hornblende - Biotite Syenite. Little epidote is visible. At the base the Unit is increasingly mafic to ~ 75 % dark minerals with a massive appearance; upper half has cm sized xenolith inclusions. Opaques < 15%.

0.19=49' (?) (14.94 m)
14.38 - 17.82 3.44 m FY as Unit FV Actinolitic Hornblende - Biotite Syenite but with less mafics approx. 40 %; well foliated with common epidote. A clot of Unit FX at the top and a 47 cm sized band in midsection is evidence that this Unit is a younger, more felsic differentiate.

17.82 - 17.97 0.15 m FZ as Unit FV Actinolitic Hornblende - Biotite Syenite with less black amphibole; slightly altered.

17.97 - 19.09 1.12 m GA Meso Actinolitic Amphibole - Biotite Syenite. Coarse crystalline with a discernible moderate angle metamorphic foliation. Complex mineralogy.

19.09 - 19.50 0.41 m GB Pink Leucosyenite. Megacrystic with abundant cm sized miarolitic cavities- *vugs*. Approx. ~ 10 % amphibole as coarse sized euhedral black phenocrysts. Possibly an incorporated xenolith.

19.50 - 22.81 3.31 m GC Actinolitic Amphibole - Biotite Syenite. Leucocratic and megacrystic at the top; overall meso- to melanocratic and very coarse crystalline. Discernible foliation. Cm sized mafic clots of poikilitic anhedral biotite. Very competent and unaltered.

22.81 - 25.08 2.27 m GD Leucocratic Syenite like the top part of Unit GC. Very coarse crystalline, a faint but discernible foliation present. Complex mineralogy; < 5 % opaques. Rare mm sized chlorite- epidote veins infill healed fractures. Very competent and unaltered. Completely gradational to

25.08 - 26.40 1.32 m GE Melanocratic Syenite (or Shonkinite). The upper part is mesocratic; very coarse crystalline with common cm sized mafic clots of anhedral poikilitic biotite. A sharp igneous intrusive contact with

26.40 - 28.97 2.57 m GF Leucocratic Syenite (upper sixth) completely gradational to Mesocratic Shonkinite (five sixths or most of he Unit). Very coarse crystalline, with a low angle foliation. Disseminated opaques mostly magnetite to ~ 18% in cm sized bands. No pyrrhotite observed. *Crystal settling has increased the mafic and opaque mineral content toward the base. The Leucocratic Syenite is a felsic differentiate cogenetic with the Melanocratic Syenite (Shonkinite)- both derived by settling of mafic crystals from the parental Actinolitic Hornblende - Biotite Syenite.*

28.97 - 30.97 (101.58') 2.00 m GG Leucocratic Syenite. Same texture and mineralogy as Unit GD. Very competent.

End Core 94-8

HOLE 94-9 DESCRIPTION

43 mm Diamond Core. Hole Inclined 090 degrees (vertical).
Casing at 5' (= 1.52 m). Approx. collar elevation is 2490'.
Drilled to ~ 30.48 m (100').
Complete recovery of 30.48 m in 6 boxes.
10

Depth (m) Interval	Thickness Interval	Letter Designation	Description

Start 5'. 1.52 m
1.52 - 2.95 1.43 m of cobbles including a quartzite boulder in a lacustrine (glacial lake) silty clay matrix. Poor recovery.

0.47=13' (start 3.96 m)
3.96 - 4.43 0.47 m GH Mesocratic Syenite, no foliation evident. Very coarse crystalline, not porphyritic. General pale green weak chloritic alteration of the mafics. Trace epidote veinlets. Mafics ~ 65 %. Competent; good recovery. Opaques < 10%.

0.68=18' 2.80=24' 5.52=32' (9.75 m)
4.43 - 10.47 6.04 m GI Mesocratic Syenite as Unit GH with more common opaques ~ 18%. (BT-9-67 75.4 e.m.u).

0.92=37' 3.70=44' (13.41 m)
10.47 - 15.39 4.92 m GJ as Unit GH but moderately to intensely altered. Uncommon mm sized maroon coloured hematite veinlets and rare sub cm sized coxscomb carbonate veins infilling fractures. Opaques < 3%, destroyed by hydrothermal alteration.

0.19=49' (?)
15.39 - 25.41 3.44 m (missing core) GK As GH, Mesocratic Syenite with intense chloritic alteration grading to moderate argillic alteration at the base. Subhorizontal 3 - 5 cm sized banding with abundant one cm sized coxscomb carbonate veins. Carbonate is also in the matrix. No magnetite present; it would have been completely destroyed by alteration.

25.41 - 25.49 0.08 m GL. Fine crystalline Pyrite in an intensely clay (argillic) altered breccia. A possible original lithology is the Mesocratic Syenite.

2.11=92' (28.05 m)
25.49 - 28.19 2.70 m GM. Mesocratic Syenite (?) with Intense light grey green argillic (clay) alteration. Brecciated at the top of the interval. Common carbonate in the matrix and very abundant cm sized carbonate veins. A 10 cm hematitic band associated with breccia in the lower part of interval.

1.72= 98' (29.88 m)
28.19 - 29.91 1.72 m GN Mesocratic Syenite. Grey green due to intense chloritic alteration. Abundant cm sized carbonate veins. Competent, good recovery.

0.57=100' (30.48 m)
29.91 - 30.48 0.57 m GO Mesocratic Syenite with slight chloritic alteration. Poor recovery, mostly rubble. Little opaques.

End Core 94-9

HOLE 95-1 DESCRIPTION

43 mm Diamond Core. Hole Inclined 090 degrees (vertical). Approx. collar elevation 2400'. Casing at 16' (4.88 m). Drilled to 91.46 m (300'). Full recovery of 96.91 m (317.86') (some core rubble gives extra recovery) in 16 boxes.

<u>Depth (m) Interval Thickness Letter Description</u>
<u>Interval Designation</u>

Start 16' (4.88 m)
0.34 m=20' 0.65=24' 1.52m=28' 2.06m=30' 3.10=34' (10.36 m)
4.88 - 10.36 3.10 m CH Mafic Syenite. Very incompetent - common core rubble. Mesocratic, very coarse crystalline, indeterminate mafic mineral - pyroxene ?. A different intrusion than 95-2 or 95-3 drill holes. Moderate angle Igneous flow lamination. Uniform, but some of the interval is calc-silicate (developed from xenoliths?).

1.91=37' 5.01=47' (14.33 m)
10.36 - 16.06 5.70 m CI Pyroxene Syenite. Melanocratic, very coarse crystalline, uniform, competent, equicrystalline, magnetite (opaques) content < 10% .

2.22=57' (17.37 m)
16.06 - 19.16 3.10 m CJ Leucocratic Biotite - Amphibole Syenite. *Coarse - very coarse crystalline with moderate angle* igneous flow banding and common mm sized epidotized healed fractures.

19.16 - 19.65 0.49 m CK Mesocratic Syenite.
A calc-silicate altered very fine crystalline dark green 0.16 m band at the top of the interval, probably a xenolith incorporated in the Leuco - Syenite of Unit CJ.

1.87 =67' (20.4 m)
19.65 - 23.60 3.95 m CL Mesocratic Syenite like Unit CJ but with more mafics ~ 30%. Uniform, with a characteristic igneous flow lamination at moderate angles to the core, common epidotized healed fractures, mm sized.

1.21=77' (23.47 m) 3.10=87' 6.14=97' (29.57)
23.60 - 29.57 7.35 m (some extra rubble) CM Variably Leuco - Mesocratic Syenite Similar to CL. Moderate angle igneous foliation. One high angle fault in box 4. Common 1 - 5 mm sized epidote seams. *No traces of Quartz noted. A uniform and very* competent lithology.

29.57 - 30.59 1.02 m CN As Unit CM but with very common cm sized seams of epidote and pink garnet from incorporated xenoliths. Very competent.

30.59 - 31.75 1.16 m CO as CM with criss crossing mm sized healed epidotized fractures. Little magnetite or opaque content.

1.20=107' (32.62 m)
31.75 - 32.95 1.20 m CP As Unit CN with abundant epidote inclusions and veining. Incompetent.

32.95 - 33.39 0.44 m CQ A green to pink calc-silicate inclusion (xenolith) incorporated in the Syenite.

3.20m=117' (35.67 m)
33.39 - 37.66 4.27 m CR Leuco - Mesocratic Syenite As Unit CO.

37.66 - 38.01 0.35 m CS An inclusion of dark purple brown silicic hornfels.

1.62m=127' (38.72 m)
38.01 - 40.68 2.67 m CT Leuco - Mesocratic Syenite as CR, texturally identical.

40.68 - 41.11 0.43 m (to end of box 6) CU Calc-silicate inclusion very similar to CQ.

2.04=137' (41.77 m)
41.11 - 43.32 2.21 m CV Meso- partly Melanocratic Epidote Syenite. Medium grey, ~ 30 % mafics: biotite and pyroxene ? with very little magnetite. At the 135' marker (sample 95-1-135) is disseminated very fine crystalline pyrrhotite. The syenite is unaltered, very competent, and has incorporated more country rock material than usual to give more abundant epidote in his interval.

1.72=143' 2.92=147' 6.03=156' 6.79=158' (48.17 m)
43.32 - 50.42 7.10 m CW Mesocratic Syenite. With a strong igneous flow foliation and abundant epitotized fractures, some with pink calc-silicates (garnet). Mottled dark grey (mafics) and off white (feldspar). Very coarse crystalline.

50.42 - 51.03 0.61 m CX As Unit CW but mostly consisting of two epidote and garnet bearing calcsilicate inclusions as xenoliths.

2.00=167' (50.91 m)
51.03 - 53.60 2.57 m CY Mesocratic Syenite as Unit CW distinctly foliated.

2.68=177' (53.96 m)
53.60 - 56.56 2.96 m CZ Mesocratic Syenite as Unit CW with two 10 cm sized bands of calc-silicates formed from incorporation of xenoliths. Little opaque content.

0.26=179' 1.32m=182' (55.49 m)
56.56 - 58.20 1.64 m DA A xenolith rich interval with minor intersections of the Mesocratic Syenite. The top has much rubble and has poor core recovery.

0.06m=184' 2.77m=192' 4.327=197' 7.34=207' (63.11 m)
58.20 - 68.01 9.81 m DB Mesocratic Syenite as Unit CY, with the same texture and mineralogy. Most of the interval has less epidote veining.

1.81=217' (66.16 m)
68.01 - 70.42 2.41 m DC Melanocratic Syenite. Very coarse crystalline, porphyritic texture with very fine crystalline pyrrhotite to ~ 30 % in the very mafic midsection (sample 95-1 213).

1.28m=222' (67.68 m)
70.42 - 72.12 1.70 m DD Mesocratic Syenite as Unit DB with common cm sized epidote and grey- pink garnet veining. Magnetite and ilmenite opaques < 5%.

2.33m=230' 3.96=235' (71.46 m)
72.12 - 76.14 4.02 m DE Pelitic Hornfels coloured medium red-purple. Very fine crystalline, possibly a thick xenolith or argillaceous inclusion.

0.63=238' 0.71 m to end of box 12. 2.61=247' (75.30 m)
76.14 - 81.45 5.31 m DF As Unit DD Melanocratic to mesocratic Syenite. Well foliated with the usual epidote veins along fractures; uncommon calcite - healed high angle fault planes in the lower part of the interval.

81.45 - 82.38 0.93 m DE Epidote - Calcite xenolithic Mesocratic Syenite.

0.13=255' 0.85m=257' 3.91m=267' 7.13=277' 10.25=287' 13.41=297' 14.53=300' (91.46 m)

82.38 - 96.91 (317.86') 14.53 m DF Melanocratic to mesocratic Syenite as Unit DF; same lithology and texture. Uncommon calcite healed fractures. Igneous flow foliation at a moderate angle to the core.

End Core 95-1

HOLE 95-2 DESCRIPTION

43 mm Diamond Core. Hole inclined 090 degrees (vertical). Approx. collar elevation 4575'. Casing at 10' (3.05 m) Drilled to 298' (90.85 m). Full recovery of 93.60 m (107') in 16 boxes. Very minor core rubble.

Depth (m) Interval Thickness Interval Letter Designation Description

1.60m=16' 2.15m=18' (5.48 m)
3.05 - 5.48 2.26 m BF Biotite Syenite. Mesocratic, very coarse crystalline, with ~ 30 % anhedral 'ragged' biotite. Uniform. Competent.

0.70=22' (6.71 m)
5.42 - 6.84 1.42 m BG Biotite Syenite as Unit BF but with altered dark brown biotite, well fractured and possibly a faulted zone.

0.61=28' 3.80=38' 5.45=42' (12.80 m)
6.84 - 12.52 5.68 m BH As Unit BF Biotite Syenite with a distinctive and common (faint) grey blue larvikitic alteration of the plagioclase.

0.67=48' 2.31=53' 3.93=58' 5.15=61' 7.26=68' 2.97=78' 6.10=88' (26.83 m)
12.52 - 26.33 13.81 m BI Larvikitic Biotite Syenite. Intense alteration of the calcic plagioclase has resulted in the uniform blue grey colour characteristic of larvikitic alteration. Megacrystic, generally competent. Some fracturing and hydrothermal alteration at biotite rich selvages has caused bleaching and destruction of the larvikitic alteration.

26.33 - 26.81 0.48 m BJ Anorthosite. Leucocratic, pale grey - blue due to weak larvikitic alteration. Inequicrystalline fine to very coarse sized crystals with < 5 % biotite; a reaction or contact zone with ~ 15 % fine grained interstitial euhedral glomeroporphyritic opaques - magnetite and ilmenite - developed.

2.45=98' 5.50=108' (32.92 m)
26.81 - 35.16 8.35 m BK Magnetitite. Equicrystalline, medium to coarse sized, dark grey, melanocratic and anorthositic with 15 - 25 % medium crystalline euhedral opaques. Variably strongly magnetic. Only very rare traces of carbonate noted.
0.56=118' 1.00=127' (38.72 m)

35.16 - 39.07 3.91 m BL Magnetitite as BK, medium to dark grey, possibly more calcium content in the plagioclase. Common fractures.

39.07 - 39.38 0.31 m BM Syenite. Very coarse crystalline to megacrystic. Dark green amphibole - actinolite ? and black equant hornblende developed. No reaction with dilute HCl acid. Little magnetite content.

1.33=132' (40.24 m)
39.38 - 41.66 2.28 m BN Melanocratic Anorthosite. Medium - coarse crystalline, generally equicrystalline. Common yellow - brown limonite alteration is partially destructive of the ~ 10 % magnetite present. Competent.

0.75=138' (42.07 m)
41.66 - 43.37 1.71 m BO Magnetitite. Melanocratic, anorthositic, with common pyroxene (?). Very competent, uncommon coarse sized anhedral biotite phenocrysts, coarse - very coarse crystalline, unaltered.

2.25m=148' 3.69=155' 5.43=158' (48.17 m)
43.37 - 50.21 6.84 m BP Anorthosite, megacrystic, no larvikitic alteration, common dark green hornblende (actinolite?) and < 10 % opaques.

50.21 - 51.07 0.86 m BQ Biotite Anorthosite as Unit BP but well fractured. The biotite is partially altered to limonite. Mostly rubble.

0.98=168' 4.11=178' (54.27 m)
51.07 - 55.25 4.18 m BR Biotite Anorthosite as Unit BP but with a very coarse to pegmatitic grain size. The magnetite is concentrated in unevenly distributed clots; generally 5 - to exceptionally 30%.

2.50= 188' (57.32 m)
55.25 - 58.61 3.36 m BS Anorthosite. Pegmatoid texture for 0.60 meters in box 9. In box 10 the Anorthosite is very coarse crystalline to megacrystic, mesocratic. Clotted opaques mostly magnetite varying greatly in concentration.

58.61 - 59.16 0.55 m BT Leucocratic Anorthosite. Off white, < 5 % mafics, biotite is mostly anhedral. Very little magnetite.

1.95=198' (60.36 m)
59.16 - 62.13 2.97 m BU Mesocratic Anorthosite. Strongly foliated with common healed and limonitized fractures,; some are vuggy with sub cm sized cavities. Very coarse poikilitic phenocrysts of anhedral biotite.

62.13 - 63.20 1.07m BV Melanocratic Anorthosite. Very coarse - megacrystic, faintly but discernibly foliated.
0.29 m BW Anorthosite Meso - Leucocratic. With a very distinct moderate angle foliation.

0.78=208' (63.41 m)
63.20 - 66.91 3.71m BX Magnetitic Anorthosite. Very dark grey green, inequicrystalline generally very coarse sized. Melanocratic with abundant actinolite? and calcic hornblende at 215'. 10 % pyrrhotite as late disseminations is intergrown with the magnetite. Opaques 20 to 30 %.

0.23=218' (66.46 m)
66.91 - 72.60 5.69 m BY Biotite - Hornblende Anorthosite. Minor actinolite. Pegmatitic, unaltered, massive. Same lithology as Unit BP.

0.58=238' (72.56 m)
72.60 - 73.70 1.10 m BZ Leucocratic Anorthosite. Megacrystic, off white mottled black. Two hi angle faults present, one with a polished slickenplane (toward the end of box 12). Unaltered.

2.88=248' (75.61 m)
73.70 - 76.78 3.08 m CA Meso to Melanocratic Biotite Anorthosite. Megacrystic as BZ. Trace of interstitial (late) pyrrhotite.

76.78 - 77.43 0.65 m CB Pyrrhotite Anorthosite. Melanocratic, silicates are generally coarse crystalline. Fine to medium crystalline pyrrhotite is ~ 25 % of the interval. Magnetite and ilmenite opaques are < 10%.

2.38m = 258' (78.65 m)
77.43 - 80.53 3.10 m CC Mostly Mesocratic Biotite Anorthosite with cm sized leucocratic bands like Unit CA. Coarse - very coarse crystalline; mafics are anhedral. Maximum 15 % to < 5 % accessory interstitial pyrrhotite. Opaques (mag and ilmenite) approx. 10 - 15 %.

80.53 - 81.47 0.94 m CD Pyrrhotite Anorthosite. Melanocratic like Unit CB but with more pyrrhotite. Disseminated very fine - fine crystalline (grey brown with a metallic lustre) pyrrhotite to 35%, always interstitial to the silicates. Uncommon Leucocratic Anorthosite bands outline a cm sized horizontal igneous layering.

1.62=268' (81.70 m)
81.47 - 86.10 4.63 m CE Biotite Anorthosite. Mesocratic, megacrystic, colour is mottled very pale grey green (plagioclase) and black (mafics). Variable trace interstitial pyrrhotite in the lower part of the interval increases to a maximum of 20 - 30%. Very competent. No alteration.

0.15=278' (84.75 m)
86.10 - 88.62 2.52 m CF Biotite Anorthosite as Unit CE but with more plagioclase and only trace pyrrhotite. Some high angle healed fractures.

0.92 m = 288' 4.14 m = 298' (90.85 m)
88.62 - 93.60 (307.01') 4.98 m CG Biotite Anorthosite. Meso to leucocratic, megacrystic. Generally < 5% interstitial pyrrhotite concentrated in cm sized bands.

End Core 95-2

HOLE 95-3 DESCRIPTION

43 mm Diamond Core. Hole inclined 090 degrees (vertical). Approx. collar elevation 5320'. Casing at 7' (2.13 m). Drilled to 91 m (299'). Full recovery of 91.18 m (299.07') (some core rubble throughout) in 15 boxes.

Depth (m) Interval | Thickness Interval | Letter Designation | Description

3.14=28' (8.53)
2.13 - 8.53 3.14 m (minimal recovery) AA Melanocratic Diorite. No quartz, coarse crystalline. In midsection is a 20 cm silicified orange chert inclusion. Common rubble.

8.53 - 9.27 0.74 m AB Melanocratic Diorite. as AA, fractured.

9.27 - 10.67 1.40 m AC Mesocratic Syenite. A very coarse crystalline strongly altered rock composed of light green propyliticaIly altered plagioclase and pale pink potassium feldspar. A skarn with calcite present (reacts with dilute HCl acid). Uncommon medium grey blue sodalite. Mostly rubble.

2.5=38' (11.58 m)
10.67 - 13.43 2.76 m AD Mesocratic Syenite. Very coarse crystalline, no calc-silicate. Intense pink potassic alteration.

1.7=58' (17.68 m)
13.43 - 17.68 (minimal recovery) 1.70 m AE As AD but with strong argillic alteration and light brown Fe staining. Friable; an incompetent lithology. All rubble.

17.68 - 18.54 0.86 m AF Melanocratic Syenite as AC. Very coarse crystalline, very common cm sized lath shaped megacrystic amphiboles. Full recovery.

18.54 - (approx.) 20.98 2.44 m AG Mesocratic Syenite. Common coarse crystalline potassium feldspar phenocrysts. Thin high angle mylonitic fractures with epidote. Full recovery

starts 0.27 m above 68' (20.73 m)
20.46 - 20.53 0.07 m AH Mesocratic Syenite. Exactly as AD with the same texture. Very coarse crystalline, no calc-silicate. Intense pink potassic alteration.

1.46=78' Start box 4: 1.03=88' 4.0=98' 4.30 m in box 4.
20.53 - 27.83 7.3 m AI Mesocratic Syenite. Very pale pink to off white, medium to coarse crystalline with intense sodic alteration - albite has formed. At the top is a fault plane with chloritized slickenlines. Fractured in mid section. Full recovery.

27.83 - 28.23 0.40 m AJ Mesocratic Syenite. Medium to coarse crystalline with typical flesh pink intense potassic alteration.

end is 107' (32.62 m)
28.23 - 30.81 2.58 m AK Mesocratic Syenite. As Unit AI, uniform; no faulting observed.

32.62 - 33.03 0.41 m AL Melanocratic Syenite. Fractured, poor recovery with common rubble.

0.6=110' 1.51=118' (35.97 m)
35.85 - 35.97 0.12 m AM Mesocratic Syenite As Unit AI. In midsection at 1.15 m is an igneous intrusive contact between medium and coarse crystalline phases of the same syenite lithology.

1.15=128' 4.70=138' (42.07 m)
35.97 - 43.92 7.95 m AN Mesocratic Syenite. Coarse crystalline. Potassium feldspar alteration with very thin (hairline) epidotized fractures.

3.14=148' (45.12 m)
43.92 - 47.56 3.64 m AO As AN Mesocratic Syenite but with slight to intense Fe-stained limonitized breccia fractures esp. in the midsection. A zone of cataclasis with very common healed fractures.

47.56 - 49.08 1.52 m AP Upper part is Mesocratic Syenite like AN; the lower part has healed limonitic fractures like AO.

49.08 - 49.63 0.55 m AQ Melanocratic Syenite. Two prominent cataclastic 'crush breccia' fault zones occur at high angles to the core.

0.60=158' (48.17 m)
49.63 - 51.95 2.32 m AR Leucosyenite Syenite. Relatively fresh, pale pink, coarse crystalline with euhedral mafic very coarse crystalline amphibole. Very common felsic bands with little mafic minerals. A high temperature zone.

51.95 - 52.33 0.38 m AS Leucosyenite Syenite. As AR starting with a cm sized mylonitic hi-angle epidotized fault plane.

1.25=168' 4.03=178' 4.95 m to end of box 8. 2.72=188' 5.93= 198' 9.33=208' (63.41 m)
52.33 - 63.74 11.41 m AT Mesocratic Syenite. Generally very coarse, minor part is fine crystalline. Massive, uniform with little foliation developed.

63.74 - 64.59 0.85 m AU Mesocratic Syenite. Grading to off white with slight to common argillic alteration. Fractured at the base.

64.59 - 66.85 2.26 m AV Mesocratic Syenite. Medium - coarse crystalline with a uniform crystal size.

66.85 - 67.05 0.20 m AW A thin very melanocratic Cataclastic Fault Zone with very common opaques present.

1.06=228' 3.25=234' End of box is 3.45 m. 0.83=238' (72.56 m)
67.05 - 72.56 (missing core) 2.62 m AX Mesocratic Syenite like Unit AT. At 0.85 m is a 5 cm thick calcsilicate band with epidote. Fresh, off white, coarse crystalline. Euhedral variably sized mafic amphibole crystals. With uncommon healed fractures and traces of green calc-silicates.

1.51m=248' (75.61 m)
72.56 - 75.24 2.68 m AY Leuco - Mesocratic Syenite. Very coarse crystalline. Characteristic pink potassium feldspar alteration. Common felsic (leucosome) bands.

75.24 - 78.81 3.57 m AZ Mesocratic Syenite. Pale grey green and pink, medium - very coarse crystalline. Moderate hydrothermal alteration. No fractures. Two mafic minerals are present; one is equant and coarse - medium crystalline: possibly amphibole; the other is very fine - fine crystalline euhedral acicular lath shaped grains - a mafic calc-silicate?

1.90=268' (81.70 m)
78.81 - 81.87 3.06 m BA Leuco - Mesocratic Syenite. Very coarse crystalline. No or very rare lath shaped mineral present.

81.87 - 82.27 0.40 m BB Mesocratic Syenite. Fine crystalline, slightly altered.

82.27 - 83.07 0.80 m BC Mesocratic Syenite. Very fine crystalline as Unit BB. Common limonite stained fractures, calc silicate alteration, brecciated with xenolith-like blebs.

0.28=278' 4.31=288' (87.80 m)
83.07 - 88.47 5.40 m BD Mesocratic Syenite. Very mafic (last box), generally coarse crystalline with v common epidotized mylonitic fractures.

88.47 - 91.18 2.71 m BE Mesocratic Syenite. Pale pink, very coarse crystalline. A few epidotized fracture or fault planes are present.

End Core 94-1 at 91.18 m (299.07')

HOLE 96-1(4) DESCRIPTION

43 mm Diamond Core. Hole Inclined 090 degrees (vertical). Approx. collar elevation 2470' (752.8 m). Casing at 45' (13.72 m). Drilled to 91.44 m (300'). Full recovery of 91.17 m (299.11') in 14 boxes.

Depth (m) Interval	Thickness Interval	Letter Designation	Description

0.0 - 13.72 Casing

Start 45' (13.72 m) 13.72 - 14.98 1.26 m of glacial drift

14.98 - 22.08 1.16=58' 4.46=68' 7.10 m
DG Melanocratic Syenite.
Very coarse crystalline, 60 % subhedral mafic minerals - pyroxenes and biotite - in an off white plagioclase matrix. Common poikilitic pyroxene megacrysts. Holocrystalline, low angle igneous flow lamination. Uniform, very minor bands of very fine crystalline medium grey green melanocratic syenite, rare epidote segregations. Minor accessory magnetite ~ < 5 % and opaques disseminated throughout the interval - no cumulate concentrations of opaques evident.

22.08 - 22.88 0.80 m DH Melanocratic Syenite.
Very fine crystalline, uniform, competent, generally equicrystalline with uncommon plagioclase phenocrysts, common thin epidotized hairline fractures. magnetite (opaques) content < 10%.

22.88 - 28.25 2.81=88' 5.37 m DI Melanocratic Syenite.
As *Unit DG very coarse crystalline with moderate angle* metamorphic foliation. Minor mm sized epidotized healed fractures. A prominent very high angle mm sized fracture is healed by very fine crystalline calcite and qtz

28.25 - 31.18 5.12 m thick: 2.51=103' 2.93 m to end of box 3
2.19 m to end of box 4
DJ Altered Melanocratic Syenite.
Same as above Unit DI with pervasive medium green epidote - chlorite greenschist facies hydrothermal alteration. Magnetite is not destroyed; contains same minor accessory magnetite as Unit DH < 10 %. In box 4 moderate hydrothermal alteration

31.18 - 42.93 2.11=118' 4.88= 128' 8.13=138' 11.47=148' 11.75 m
DK Dark grey Melanocratic Syenite as Unit DI.
Coarse - very coarse crystalline, slightly less mafic; indistinct low angle igneous foliation. Very uniform and very competent. Rare epidote healed fractures.

42.93 - 43.08 0.15 m DL Mafic Xenolith.
An incorporated dark grey micro - very fine crystalline inclusion. Contacts are sharp with the syenite.

43.08 - 49.30 6.22 m thick: 1.98=158' 3.63 m to end of box 6.
2.22=168' 2.59 m in box 7.
DM Melanocratic to Mesocratic Syenite.
As Unit DK, but with uncommon 10 cm sized seams of moderate epidote - chlorite alteration. Two one and three cm sized bands of pink potassium feldspar - rich leucosome. Very competent. No settled concentrations of magnetite or opaques. In box 7 general weak chlorite - epidote alteration and some more felsic mesocratic syenite.

49.30 - 51.70 2.40 m DN Melanocratic Syenite.
Medium crystalline, very mafic, very dark grey- black strongly foliated in midsection to weakly foliated at the bottom of the unit. Moderately magnetic with ~ 10 - 15 % magnetite and opaques. Very competent.

51.70 - 56.57 4.87 m
DO Intensely Altered Melanocratic Syenite.
Intensely hydrothermally altered. Light grey green (chlorite) speckled white (calcite and plagioclase ?) and pistachio green (epidote). Coarse - very coarse crystalline. Seamed with cm sized distorted calcite veins. The syenite igneous texture is relict. A few coarse sized pyrite crystals at one spot; at the base gradational contact with

56.57 - 56.99 0.42 m DP Massive Pyrite.
Very coarse crystalline, no other metallic lustre opaques evident. Subrounded with 'clastic' milled crystals. Interspersed with light grey green altered syenite.

56.99 - 59.10 1.56=188' 2.11 m
DQ Moderately Altered Mesocratic Syenite.
Light grey green speckled white with a uniform massive relict igneous texture of syenite in upper half of interval; lower half has many bands and seams - irregular veins - of white calcite and an unidentified white felsic mineral giving a chaotic texture. At the base, 5 cm with decimated coarsely crystalline pyrite.

59.10 - 62.01 1.89=205' 2.91=208' 2.91 m
DR Melanocratic Syenite.
Coarse crystalline, very dark grey speckled white, Weakly altered with chlorite developed. Well fractured at the top of interval due to a white calcite - qtz veinlet. A 10 cm sized microcrystalline dark grey green inclusion or xenolith of hornfels as Unit DQ in lower part of the interval. Generally competent.
62.01 - 62.21 0.20 m
DS Intensely Altered Melanocratic Syenite.
Contains a cm sized band of pyrite. Mostly calcite and calcsilicates: epidote and chlorite.

62.21 - 62.67 0.46 m DT Melanocratic Syenite.
Very dark grey, micro - very fine crystalline, with very dark green mm sized chlorite veins with central calcite cores and off white bleached rims. Very hard and competent. A different phase of the Syenite - possibly a chilled margin or a xenolith. Not magnetic; no pyrite.

62.67 - 62.88 0.21 m DU Moderately Altered Mesocratic Syenite as Unit DQ

62.88 - 63.16 0.28 m DV Melanocratic Syenite.
Very dark grey- black, fine crystalline, microporphyritic unaltered. Magnetic with common disseminated opaques ~ 15 %

63.16 - 63.64 0.48 m DW Moderately to Intensely Altered Melanocratic Syenite.
Very coarse crystalline, speckled light green, dark grey and off white. Moderately altered at the top, grading to intensely altered at the base. Moderate angle relict igneous foliation. Trace of pyrite.

63.64 - 63.96 0.32 m DX Extremely Altered Syenite.
Light green and very friable; completely altered to a porous mass of chlorite, epidote calcite and pyrite: intense propylitic alteration.

63.96 - 65.06 to end of box 9 0.44 m 0.66 in box 10
DY Intensely Altered Melanocratic Syenite.
As Unit DV with some diffuse blebs of less altered Melanocratic Syenite.

65.06 - 65.56 0.18=218' 0.50 m DZ Moderately Altered Melanocratic Syenite.
Well fractured, incompetent, no pyrite. Very coarse crystalline, dark pink - red coloration is possibly potassium feldspar developed from potassic alteration.

65.56 - 69.78 1.50=223' 4.22 m EA Mesocratic Syenite.
Coarse - very coarse crystalline, unaltered, massive, very *competent. Very rare epidote microveinlets. Disseminated* magnetite and opaques ~ 15 %, no cumulate segregations are evident.

69.78 - 71.52 1.74 m EB Mesocratic Syenite.
Speckled dark grey and light green due to slight alteration of feldspars to light green chlorite. Very coarse crystalline to pegmatoidal; generally unaltered, massive, and very competent.

71.52 - 74.39 0.25=238' 2.87 m EC Melanocratic Syenite.
Coarse crystalline, well foliated at a moderate angle - likely a metamorphic foliation rather than an igneous flow foliation. Disseminated magnetite and ilmenite as opaques < 15%.

74.39 - 75.44 1.05 m ED Magnetic Melanocratic Syenite. Very dark grey, fine crystalline, well foliated at a slight angle to the core axis. Massive and unaltered. Strongly magnetic with ~ 15 - 20% magnetic opaques. No sulphides.

75.44 - 78.70 2.53=258' 3.26 m EE Mesocratic Syenite.
As Unit EB, speckled white and very dark grey, with very coarse euhedral mafics - augite and biotite - in a feldspar matrix. Massive. Weak alteration with cm sized bands of slight *propylitic alteration.*

78.70 - 82.91 2.37=268' 4.21 m thick: 3.53 m to end of box 12
0.68 m in box 13
EF Magnetic Melanocratic Syenite.
As Unit ED Very dark grey, fine crystalline pyroxene - biotite Syenite. Massive appearance but characteristically banded with common 10 cm sized schleiren of medium - coarse crystalline Mesocratic Syenite. These are foliated at a moderate angle to the core axis. Strongly magnetic with ~ 15 - 20 % magnetic *opaques. No sulphides. In lower part of section is 15 cm of* rhythmically banded Syenite with more magnetite segregations.

82.91 - 83.81 0.90 m EG Melanocratic Syenite. Medium crystalline, dark grey green with diffuse metamorphic foliation. Moderate propylitic alteration.

83.81 - 89.46 0.35=278' 3.40=288' 5.65 m
EH Mesocratic Syenite.
Coarse - very coarse crystalline as Unit EE speckled white and very dark grey. Very coarse euhedral mafics - augite and biotite - *in a feldspar matrix*. Massive. Metamorphic foliation at a moderate angle to the core axis. Uncommon one cm sized veins with epidote and calcite. Common large mafic poikiloblasts.

89.46 - 90.90 0.95=298' 1.44 m EI Mesocratic Syenite.
Medium - coarse crystalline, strongly foliated.

90.90 - 91.01 0.11 m EJ Magnetitite.
Black, medium crystalline, very common mm sized rhythmically banded opaques from crystal settling - a cumulate texture.
Opaques ~ *20* %.

91.01 - 91.11 0.10 m EK Mesocratic Syenite as Unit EI

91.11 - 91.17 0.06 m EL Magnetitite as Unit EJ

end Core 96-1 (4) at 91.17 m or 299.11'

HOLE 96-2 DESCRIPTION

43 mm Diamond Core. Hole inclined 090 degrees (vertical). Approx. *collar elevation 5250' (1600.2 m).* Casing at 7' (2.13 m). Drilled to 152.4 m (500'). More than full recovery of 175.39 m (575.43') due to core rubble throughout in 29 boxes.

<u>Depth (m) Interval Thickness Letter Description</u>
<u>Interval Designation</u>

0.0 - 2.13 Casing

2.13 - 13.33 11.20 m 6.90=25' 10.59=34'
AA *Melanocratic Microdiorite. Very fine horizontal laminations* very dark grey green, micro - very fine crystalline. Very fractured and mostly rubble. Common subvertical epidotized fracture planes.

13.33 - 17.33 4.0 m 4.0=47'
AB Melanocratic Augite Porphyritic Diorite.
Medium - dark grey brown with indistinct foliation. Medium sized augite phenocrysts in a soft, porous, argillic altered matrix. Uncommon mm sized vugs. Generally competent.

17.33 - 22.27 *4.94 m thick: 2.1 m to end of box 3 1.56=57' 2.84* m in box 4
AC Melanocratic Microdiorite. As Unit AA, dark grey green with very fine horizontal laminations. Common high angle partially epidotized fault planes with minor brecciation in box 3. In box 4 light - medium grey green with strongly epidotized fracture planes with rare quartz veinlets. Some rubble in midsection.

22.27 - 26.57 4.30 m AD Melanocratic Microdiorite. As Unit AA very dark grey green with very fine horizontal laminations. Microcrystalline. Indistinct dark grey blebs and diffuse seams - *an igneous resorption texture. Orange colored rusty iron* staining along some core rubble.

26.57 - 27.92 1.35 m AE As AD Melanocratic Microdiorite. Bleached off white to medium grey green along extensive open vertical fractures. Some subhorizontal mm sized quartz extensional veinlets. Otherwise competent.

27.92 - 40.43 12.51 m thick: 3.82=87' 9.41 m to end of box 6. 1.40=107' 3.10 to end of box 7.
AF Melanocratic Microdiorite. Dark grey green, very fine horizontal laminations. Microcrystalline. In box 6 common pale pink Potassium feldspar as diffuse blebs. Common cm sized ellipsoidal vugs lined with very fine crystalline epidote and rare quartz. Competent, good recovery.

40.43 - 54.95 11.52=147' 14.52 m to end of box 9
AG Melanocratic Diorite. Dark - medium grey green. Grades from micro - medium crystalline. At top of interval uncommon mm sized vugs. Generally massive, rare veinlets of quartz. Competent, good recovery. At 7.75 m a patch of hydrothermal alteration - argillic alteration? and very soft. At 12.45 m subvertical mm sized veinlets of medium green chlorite. At ~ 13.5 m strongly brecciated.

54.95 - 62.43 4.01=157' 7.48 m
AH Mesocratic Microdiorite Porphyry.
Medium grey green, very uniform, massive. Porphyritic texture: uncommon light green fine - medium sized equant phenocrysts - altered plagioclase ? in a very fine - microcrystalline matrix.

62.43 - 70.01 2.53=187' 5.75=197' 7.58 m
AI Melanocratic Diorite. Intermixed light - medium grey green. Microcrystalline. Many types of intense deuteric ? alteration with very common partially resorbed ovoid spherules of pink potassium feldspar. Common vugs in mid section. Corona reaction rims are medium grey green in colour. At the base, pervasive but diffuse pink potassium feldspar alteration. Competent with full recovery.

70.01 - 75.65 5.64 m thick: 2.74 m to end of box 91.55=217' 2.90 m in box 10
AJ Mesocratic Microdiorite. Medium - dark grey green Microcrystalline. Resorbed partially incorporated mm to cm sized megacrysts of pink potassium feldspar, peripherally altered to green sericite.

75.65 - 82.74 4.57=232' 7.09 m AK Melanocratic Microdiorite. Uniform; well faulted in upper part of section. Micro - very fine crystalline, dark grey green. No spherules, generally non descript. In lower part of interval subvertical igneous layering - laminated cumulates - with mm sized vugs of epidote.

82.74 - 85.85 3.11 *m* AL *Melanocratic Microdiorite.*
Dark grey - black microcrystalline very finely laminated. At 1.90 m abundant pink potassium feldspar blebs interspersed with the matrix. In lower part of the interval are dark green mafic spheroids with very thin reaction rims. Competent, good recovery.

85.85 - 86.22 0.37 m AM Bleached Microdiorite.
Light grey brown, fine crystalline, fractured with common subvertical mm sized white quartz veinlets.

86.22 - 87.28 1.06 m
AN Melanocratic Microdiorite Microporphyry.
Massive, micro - very fine crystalline, uniform with very fine sized indeterminate phenocrysts. Uncommon hairline fractures.

87.28 - 94.64 7.36 m thick: 1.59=257' 2.88 m to end of box 15
1.70=265' 4.48 m in box 16.
AO Porphyritic Melanocratic Microdiorite.
As Unit AI crowded with very common resorbed mm sized ovoid spherules of light - medium green mafic minerals. Minor blebs of potassium feldspar. In box 16, very common cm sized megacrysts of augite with no reaction rims.

94.64 - 97.34 1.70=277' 2.70 m
AP *Melanocratic Microdiorite Microporphyry.*
Very dark grey - black, Microcrystalline, very fine horizontal laminations. common fine sized off white plagioclase phenocrysts.

97.34 - 99.62 2.28 m AQ Melanocratic Microdiorite.
As Unit AP with very rare phenocrysts. Medium grey, microcrystalline, rhythmically banded on a mm scale: an igneous cumulate banding, partly outlined by rare phenocrysts.

99.62 - 101.15 0.15=287' 1.53 m
AR Mesocratic Porphyritic Microdiorite.
Drab light grey green. Moderately altered - possibly argillic alteration. Common rubble with hairline fractures.

101.15 - 106.05 4.90 m AS Melanocratic Microdiorite.
Very dark grey green, Microcrystalline, uncommon to common mm sized plagioclase phenocrysts. Uncommon epidotized, healed hairline fractures.

106.05 - 107.53 1.48 m in box 18
AT Melanocratic Microdiorite.
Medium grey green, microcrystalline, nondescript with rare phenocrysts. Common epidotized, healed hairline fractures.

107.53 - 109.27 1.74 m AU Mesocratic Microdiorite.
Dark grey green, very fine crystalline. Chaotic texture with very abundant screens and blebs of resorbed pink potassium feldspar megacrysts and pale green resorbed plagioclase aggregations. Very competent with full recovery.

109.27 - 110.53 0.42=317' 1.26 m
AV Melanocratic Microdiorite.
Very dark grey green, microcrystalline, microlaminated on a mm scale with common bleached hairline fractures.

110.53 - 114.90 4.37 m AW Melanocratic Microdiorite Breccia.
Medium grey green, very fine crystalline, very brecciated especially in lower part of interval with angular cm sized microdiorite fragments, some with resorbed dark grey green augite phenocrysts. A tectonic or structural breccia.

114.90 - 118.51 1.57=337' 3.61 m AX Mesocratic Microdiorite.
Medium grey green, microcrystalline, microlaminated on a mm scale. Fractured at the top. Common quartz filled hairline fractures.

118.51 - 119.01 0.50 m AY Leucosyenite.
Pink to grey, all coarse crystalline potassium feldspar with uncommon off white plagioclase phenocrysts. Common mm sized vugs.

119.01 - 123.98 3.82=357' 4.97 m
AZ Mesocratic Microdiorite Breccia.
Medium grey green, very fine crystalline, a breccia with thin quartz veinlets, very fractured. Some missing core.

123.98 - 126.09 2.11 m thick: 1.20 m to end of box 21 0.47=367' 0.91 m in box 22. BA Altered Syenite.
Bleached light pink to tan with strong argillic (clay) alteration. Unit is all intensely fractured core rubble.

126.09 - 127.82 1.73 m BB Mesocratic Diorite.
Medium grey brown, very fine crystalline, massive, very uniform, very competent.

127.82 - 131.27 3.45 m BC Mesocratic Diorite Breccia.
Medium grey green, intensely brecciated with cm sized megacrysts of melanocratic diorite in a very fine crystalline matrix,

131.27 - 133.38 1.31=387' 2.11 m BD Melanocratic Diorite.
At the top of unit are uncommon resorbed pink potassium feldspar megacrysts with corona reaction rims. Generally massive and very competent. Sparse off white plagioclase phenocrysts. In lower part of unit are uncommon epidotized fractures.

133.38 - 134.91 1.53 m BE Mesocratic Diorite Breccia.
As Unit BC. Intensely brecciated with mm - cm sized megacrysts of melanocratic diorite and dark pink potassium feldspar phenocrysts in a medium grey green very fine crystalline matrix.

134.91 - 137.35 1.32=397' 2.44 m BF Mesocratic Diorite.
As Unit BB. Medium grey brown, very fine crystalline, massive, very uniform, competent with uncommon rusty hairline fractures.

137.35 - 141.60 4.25 m BG Mesocratic Diorite Breccia.
As Unit BD. Variably medium or dark grey green. Intensely brecciated with 1 - 5 cm sized very angular megacrysts of melanocratic diorite in a very fine crystalline medium grey green matrix. Common resorbed pink Potassium feldspar.

141.60 - 142.46 0.86 m BH Mesocratic Diorite.
Massive, coarse crystalline with euhedral black, alkalic ? hornblende laths and very common apple green epidote. Uncommon vugs.

142.46 - 146.11 3.65 m thick: 0.24=417' 0.67 m to end of box 24 2.98 m in box 25. BI Mesocratic Diorite Porphyry.
Medium grey brown, very fine crystalline with uncommon large cm sized off white plagioclase phenocrysts.

146.11 - 155.76 9.65 m thick: 0.45=427' 6.30 m in box 25 3.35 m in box 26
BJ Mesocratic Diorite Breccia.
As Unit BD. Variably medium or dark grey green, intensely brecciated with mm - cm sized very angular megacrysts in a very fine crystalline medium grey green matrix. Common resorbed pink potassium feldspar phenocrysts.

155.76 - 158.21 0.72=447' 2.45 m
BK Melanocratic Diorite Porphyry.
Dark grey green, very fine crystalline. Massive, uniform, and very competent. Abundant off white plagioclase phenocrysts aligned along subhorizontal planes.

158.21 - 161.30 3.09 m thick: 0.17 m in box 26 1.43=457' 2.92 m *in box 27*
BL Mesocratic Diorite. As Unit BH. Medium grey green, very *fine - medium crystalline. Massive, competent, with euhedral* alkalic hornblende crystals. Uncommon epidote or quartz filled *hairline fractures.*

161.30 - 162.33 1.03 m BM Melanocratic Diorite Breccia.
Black and dark grey green angular fragments. Very competent, full recovery.

162.33 - 164.74 0.97=467' 2.41 m
BN Melanocratic Diorite Porphyry.
Medium grey green very fine crystalline finely laminated on a mm scale. Uncommon light green altered plagioclase phenocrysts. Very competent.

164.74 - 165.05 0.31 m BO Syenite.
Pale grey green, fine crystalline, uncommon mm sized medium grey augite ? phenocrysts. Uncommon vugs. Rare fractures infilled with quartz veinlets.

165.05 - 168.46 2.20=477' 3.41 m
BP Melanocratic Diorite Breccia.
Medium grey green angular fragments. Incompetent, only partial recovery

168.46 - 171.01 2.31=487' 2.55 m BQ Melanocratic Diorite.
Light *grey green, fine - medium crystalline.* Common epidote filled fractures.

171.01 - 173.56 2.55 m
BR Melanocratic Diorite Breccia. Medium grey green, angular fragments. Incompetent, only partial recovery.

173.56 - 174.18 0.62=497 0.62 m
BS Melanocratic Diorite.
Light grey green, very fine crystalline, uncommon epidote filled hairline fractures.

174.18 - 175.39 1.21=500' 1.21 m
BT Melanocratic Diorite Breccia.
As Unit BR medium grey green angular fragments. Incompetent, only partial recovery.

End Core 96-2 at 175.39 m (575.43')

HOLE 96-3 DESCRIPTION

43 mm Diamond Core. Hole inclined 090 degrees (vertical). *Approx. collar elevation 5200'. Casing at 20' (6.10 m)* Drilled to 300' (91.44 m). More than full recovery of 99.03 m (324.90') in 16 boxes. Very minor core rubble. *No economic concentrations of minerals, either sulphides or opaques, are present.*

Depth (m) Interval Thickness Interval Letter Designation Description

0.0 - 6.10 Casing

6.10 - 6.45 0.35 m of drill-rounded cobbles

6.45 - 7.83 1.38=28' 1.38 m BU Regolith - Intensely altered by Tertiary (?) surficial weathering - Light grey argillic (clay) altered Syenite, all rubble.

7.83 - 8.71 0.88 m BV Off white to light brown - intensely altered by surficial weathering. Originally a well foliated very mafic lithology as Unit CA. All core rubble.

8.71 - 12.42 0.35=32' 1.50=35' 3.37=41' 3.71=42' 3.71 m
BW *Leucosyenite Porphyry. Fine - very coarse crystalline, very* common light grey cm sized megacrysts of potassium feldspar in an off white felsic fine - medium crystalline matrix. No quartz, < 3 % *mafics no magnetic opaques. Two 10 cm sized screens of* foliated very fine crystalline mafic diorite.

12.42 - 14.75 1.30=46' 2.00=48' 2.33 m
BX Leucosyenite admixed with Altered Diorite Gneiss. Light rusty brown, foliated. Generally very fine crystalline. Incompetent and well fractured, mostly rubble.

14.75 - 20.09 2.50=58' 5.34 m BY Leucosyenite Porphyry. Leucocratic, off white - pale pink, inequicrystalline. Very coarse sized subhedral potassium feldspar crystals in a fine crystalline off white matrix, mostly plagioclase. Less than 5 % mafics - biotite and hornblende. Three incorporated 10 cm sized medium green or very dark grey 'screens' or inclusions of foliated diorite gneiss.

20.09 - 20.63 0.54 m BZ Leucosyenite Porphyry. As BY but well fractured. Likely a fault zone.

20.63 - 21.73 0.89=68' 1.10 m CA Diorite Gneiss.
Very dark grey, fine crystalline well foliated mafic Diorite Gneiss. Uncommon mm to cm sized veins of Leucosyenite.

21.73 - 24.68 2.95 m thick: 2.10 m to end of box 3 0.85 m in box 4
CB Leucosyenite Porphyry.
As Unit BZ with a 30 cm sized incorporated inclusion of dark grey green diorite gneiss. Very competent.

24.68 - 28.73 0.20=78' 3.42=88' 4.05 m
CC Diorite Gneiss Intermixed with Leucosyenite.
Medium - dark grey green, very fine crystalline, well foliated mafic biotite Diorite Gneiss intermixed with cm sized bands of off white Leucosyenite. Moderate angle foliation, very common rusty fractures. Competent

28.73 - 29.67 0.94 m CD Leucosyenite Porphyry.
Leucocratic, off white - Light grey, inequicrystalline. Coarse sized subhedral potassium feldspar crystals in a fine - medium crystalline off white matrix, mostly plagioclase. Less than 2 % mafics. Uncommon incorporated m grey green 'screens' or inclusions of foliated diorite gneiss.

29.67 - 35.49 2.00=98' 5.25=108' 5.82 m CE Diorite Gneiss.
Light - medium grey, generally very fine crystalline well foliated mafic with common rusty fractures. Competent.

35.49 - 40.45 2.76=118' 4.96 m
CF Diorite Gneiss Intermixed with Leucosyenite.
Dark grey green, fine crystalline well foliated mafic biotite *Diorite Gneiss intermixed with 10 cm sized bands of off white* Leucosyenite. Moderate to high angle foliation. No rusty *fractures. Very competent.*

40.45 - 40.73 0.28 m CG Altered Leucosyenite.
Soft, off white argillic (clay) altered fracture or fault.

40.73 - 43.11 0.44=128' 2.38 m thick: 0.98 m to end of box 6 1.40 m in box 7
CH Diorite Gneiss Intermixed with Leucosyenite.
As unit CF dark grey green, fine crystalline well foliated mafic biotite Diorite Gneiss very intermixed with mm to 10 cm sized bands of off white Leucosyenite Porphyry. Moderate to high angle foliation. No rusty fractures. Very competent.

43.11 - 44.74 1.63=138' 1.63 m CI Diorite Gneiss.
Light grey green, very fine crystalline well foliated with a moderate angle foliation. Mafic, no leucosyenite, possibly epidote bearing. Very competent.

44.74 - 46.18 1.44 m
CJ Leucosyenite Intermixed with minor Diorite Gneiss.
Light grey fine - medium crystalline Leuco porphyry intermixed with adsorbed light - medium grey green Diorite Gneiss. Moderate to high angle foliation. Rare rusty fractures. Competent.

46.18 - 47.63 1.45 m CK Diorite Gneiss.
Very light - medium grey, very fine - fine crystalline indistinctly foliated, mafic. No leucosyenite. Moderately competent.

47.63 - 49.86 2.23 m CL Syenite. Light grey, very fine grained, unaltered, with distinct moderate angle foliation. Mafics <15 % no magnetic opaques. Uncommon veins of Leucosyenite. Rare rusty fractures Very competent.

49.86 - 51.27 1.35 m CM Syenite.
As Unit CL with very common rusty fractures. Moderately competent.

51.27 - approx. 52.13 0.10=158' 0.92 m CN Altered Syenite.
Strong argillic (clay) alteration. All soft core rubble.

52.13 - 55.90 2.44=168' 3.77 m CO Leucosyenite.
Very light grey and light green pervasively veined with a network (or stockwork) of light green chloritic seams from altered mafics. Common rusty fractures in upper part of interval.

55.90 - 56.94 1.04 m CP Amphibolite Gneiss.
Black, fine crystalline well foliated hornblende - biotite amphibolite gneiss. Minor cm sized white felsic leucosome veins.

56.94 - 59.58 1.00=178' 2.64 m to end of box 9
CQ Syenite. As Unit CL Light grey, very fine grained, unaltered. Indistinct moderate angle foliation. Mafics < 15 % no magnetic opaques. Very competent.

59.58 - 66.72 1.86=188' 5.20=198' 7.14 m
CR Melanocratic Diorite.
Very dark grey very fine crystalline, indistinctly foliated. *Uncommon rusty fractured zones. Generally competent but* fractured in midsection and at the base.
66.72 - 68.66 1.94 m CS Mesocratic Diorite.
Light - medium grey, very fine crystalline, distinctly foliated. A network of very common rusty, fractured zones.

68.66 - 69.33 0.67 m CT Mesocratic Diorite.
Medium grey brown, very fine crystalline, indistinctly foliated. Incompetent.

69.33 - 70.53 1.20 m CU Melanocratic Diorite.
Medium grey, *fine crystalline*, very common randomly oriented mm sized felsic veins. Incompetent.

70.53 - 70.87 0.34 m CV Agmatite.
Angular cm sized blocks of Melanocratic Diorite in a off white fine - medium crystalline porphyritic Leucosyenite matrix.

70.87 - 75.37 3.80=228' 4.50 m
CW Melanocratic Diorite.
Dark grey fine crystalline moderately foliated. Indistinct breccia fabric. Only slightly magnetic. In midsection a 10 cm sized Agmatite band as Unit CV. At the base is a 10 cm band of Porphyritic Leucosyenite.

75.37 - 79.71 4.34 m thick: 1.81 m in box 12 0.63=238'
2.53 m in box 13
CX Melanocratic Diorite.
Medium grey green, very fine crystalline, indistinctly foliated. Indistinct breccia fabric. Only slightly magnetic. In midsection of box 12 is a 10 cm sized very soft clay altered band. Distinctly foliated at a moderate angle to the core axis in box 13

79.71 - 81.08 1.37 m CY Altered Mesocratic Syenite.
Medium green, with intense argillic (clay) alteration and chloritic alteration of all the mafic minerals. Incompetent, mostly rubble

81.08 - 84.19 3.11 m CZ Mesocratic Diorite.
Medium grey - grey brown. Fractured as Unit CX

84.19 - 86.79 0.78=258' 1.50=261' 2.44=263' 2.60 m
DA Mesocratic Diorite. Medium grey, fine - medium crystalline. Indistinct foliation. brecciated and distorted fabric. Very common healed fractures.

86.79 - 90.40 0.33=264' 1.41=268' 3.61 m
DB Mesocratic Diorite.
Medium grey green, medium crystalline, strongly foliated with chaotic folded. Characteristic sheared bands of mm to cm sized ovoid pink potassium feldspar megacrysts - some have off white rims of plagioclase. Some of the potassium feldspar xenocrysts are microfaulted. (cont'd)
The megacrysts have been foliated by tectonic stresses after and likely during their formation.

90.40 - 95.16 4.24=288' 4.76 m
DC Melanocratic Diorite Porphyry.
Dark grey, strongly foliated at a high angle to the core axis. Uncommon mm sized vugs. Characteristic very abundant mm sized subhedral off white plagioclase phenocrysts.

95.16 - 96.88 1.72 m DD Foliated Leucosyenite Porphyry.
Medium pinkish grey, coarse crystalline very strongly foliated at a very high angle to the core axis. Common mafic schleiren.
Very competent.

96.88 - 97.47 0.59 m DE Amphibolite. Very coarse crystalline, black euhedral hornblende > biotite crystals dispersed in an off white plagioclase matrix.

97.47 - 99.03 0.80=298' 1.56 m=300' 1.56 m
DF Megacrystic Syenite.
Extremely coarse crystalline, medium grey pink mottled very dark grey with ~ 10 % black amphibole crystals. A band of light grey green weakly altered plagioclase in mid section. Very little opaques.

End Core 96-3 99.03 m or 324.90'

Table 1:

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

Sample Number	SiO_2 %	Al_2O_3 %	CaO %	MgO %	Na_2O %	K_2O %	Fe_2O_3 %	MnO %	TiO_2 %	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

Table 2:

Chemical analysis and magnetite susceptibility for core samples.

Sample Number	SiO_2 %	Al_2O_3 %	CaO %	MgO %	Na_2O %	K_2O %	Fe_2O_3 %	MnO %	TiO_2 %	LOI %	Total %	Susc. emu * 10^5	Rock Types
BT 1 33	40.0	13.0	11.640	07.809	2.426	0.307	19.02	0.247	3.84	1.6	99.92	054.10	BS
BT 1 39	43.6	15.1	11.752	06.947	2.548	0.334	14.59	0.181	2.59	1.6	99.28	040.20	BS
BT 1 45	40.2	14.2	10.604	06.748	2.629	0.921	18.02	0.245	3.75	2.0	99.30	054.60	BS
BT 1 56	43.4	16.1	12.479	06.516	2.480	0.305	13.93	0.176	3.09	0.8	99.25	033.10	BS
BT 1 63	40.9	15.9	12.227	07.030	2.399	0.302	15.02	0.176	3.04	3.6	99.87	043.40	BS
BT 1 73	52.6	16.8	08.786	03.731	7.360	0.476	06.45	0.089	0.92	2.8	99.83	001.19	BS
BT 1 78	41.3	15.3	10.702	05.902	3.154	0.307	13.27	0.182	3.12	5.8	99.02	009.27	BS
BT 1 94	42.4	15.5	11.598	06.466	2.656	0.693	13.77	0.181	2.80	2.4	98.41	033.00	BS
BT 1 97	42.1	16.4	13.095	06.831	2.507	0.233	14.03	0.158	3.07	0.0	98.49	040.10	BS
BT 2 23	45.8	20.0	11.822	03.747	3.100	0.348	10.73	0.116	3.19	0.6	99.44	023.70	HS
BT 2 30	46.0	19.5	11.724	03.747	2.925	0.281	10.32	0.127	2.97	1.0	98.54	007.33	HS
BT 2 49	43.4	18.1	11.724	04.858	2.629	0.322	13.57	0.139	4.00	0.8	99.60	033.60	HS
BT 2 68	46.2	20.4	11.933	03.631	3.208	0.443	09.75	0.112	2.65	0.6	98.94	015.00	HS
BT 2 72	46.0	20.0	12.045	03.581	3.168	0.364	10.15	0.112	2.95	0.2	98.59	022.60	HS
BT 2 93	46.6	21.0	12.087	03.117	3.397	0.354	08.69	0.105	2.42	1.0	98.77	003.38	HS
BT 2 99	42.8	18.1	12.171	04.991	2.588	0.249	14.73	0.134	2.79	1.4	99.96	018.70	HS
BT 3 12	43.0	17.9	12.297	04.891	2.467	0.222	14.59	0.134	2.67	0.0	98.21	054.80	HS
BT 3 19	45.1	19.6	11.864	03.847	3.127	0.323	10.40	0.117	2.94	1.2	98.59	042.90	HS
BT 3 26	42.8	17.8	09.821	04.991	2.332	1.374	14.30	0.133	2.62	3.8	99.91	044.20	HS
BT 3 31	41.9	17.6	11.430	04.808	2.561	0.395	14.03	0.133	2.69	3.4	98.93	047.40	HS
BT 3 49	44.5	17.4	11.514	04.941	2.494	0.233	14.30	0.132	2.75	1.2	99.43	041.40	HS
BT 3 53	43.0	18.1	11.822	04.957	2.534	0.248	14.44	0.134	2.80	1.6	99.67	036.70	HS
BT 3 60	44.3	21.5	11.598	03.664	3.222	0.189	10.68	0.096	1.88	2.2	99.35	028.60	HS
BT 3 68	45.3	21.7	11.192	03.482	3.316	0.296	09.87	0.096	1.47	1.8	98.59	024.60	HS
BT 3 75	44.3	21.0	12.479	03.349	2.844	0.292	08.82	0.068	1.42	5.2	99.72	005.02	HS
BT 3 83	44.5	18.7	11.430	04.294	2.548	0.219	13.44	0.112	2.50	1.6	99.34	032.80	HS
BT 3 88	42.8	17.0	12.325	05.239	2.346	0.171	13.77	0.132	4.34	0.8	98.90	028.20	MA
BT 3 97	42.6	17.4	12.227	04.974	2.588	0.239	12.30	0.179	3.84	2.6	98.89	000.49	HL
BT 4 07	36.4	10.0	11.654	06.632	2.035	0.198	22.17	0.336	5.84	1.0	96.23	074.00	BHS
BT 4 20	38.7	12.3	10.632	05.438	3.033	0.371	16.59	0.253	4.17	0.2	91.68	042.90	BHS
BT 4 25	39.1	13.0	10.562	05.355	2.831	0.298	16.73	0.258	4.50	0.2	92.92	043.90	BHS
BT 4 31	39.1	12.7	10.255	04.974	2.912	0.351	16.30	0.247	4.17	0.0	91.01	048.60	BHS
BT 4 40	35.3	09.8	10.590	06.334	2.116	0.318	20.45	0.312	5.17	0.4	90.81	034.30	BHS
BT 4 43	34.7	09.8	10.660	06.748	1.982	0.227	21.02	0.328	5.50	0.4	91.34	055.70	BHS
BT 4 52	26.1	02.6	10.982	11.125	0.406	0.076	34.75	0.554	8.17	-2.2	92.61	100.00	BHS
BT 4 57	41.5	13.4	10.674	05.455	2.939	0.358	16.30	0.267	4.17	0.6	95.67	029.90	MS
BT 4 65	40.2	12.3	10.548	05.770	2.642	0.383	18.02	0.287	4.67	0.6	95.41	042.20	SP
BT 4 71	33.4	07.0	11.290	08.622	1.415	0.190	27.74	0.436	7.01	-1.0	96.06	083.80	SP
BT 4 78	32.5	07.2	11.444	09.517	1.725	0.186	27.89	0.442	6.84	-0.6	97.13	086.00	SP
BT 4 85	35.5	09.1	10.423	07.444	2.035	0.251	24.02	0.413	6.00	-1.2	93.97	059.00	SP
BT 4 95	39.4	11.1	10.367	06.300	2.656	0.311	20.45	0.343	3.84	-0.6	94.16	047.10	MS

Sample Number	SiO_2 %	Al_2O_3 %	CaO %	MgO %	Na_2O %	K_2O %	Fe_2O_3 %	MnO %	TiO_2 %	LOI %	Total %	Susc. emu * 10^3	Rock Types
BT 5 24	42.6	17.8	06.589	03.018	3.707	1.434	11.57	0.146	2.10	02.4	91.29	011.80	MesS
BT 5 35	38.1	12.1	09.191	05.820	2.035	0.866	19.02	0.261	5.67	01.8	94.83	015.70	MesS
BT 5 46	38.7	13.6	10.409	06.980	1.806	0.878	19.45	0.205	6.00	01.8	99.85	027.30	MesS
BT 5 60	37.2	13.2	10.898	06.864	1.806	0.686	16.45	0.198	5.00	02.4	94.74	008.43	MesS
BT 5 74	38.5	11.7	11.752	06.980	1.415	0.465	18.88	0.209	6.34	02.0	98.25	003.44	MesS
BT 5 88	39.6	12.3	11.626	06.914	1.928	0.606	16.02	0.205	5.84	02.0	96.98	003.40	MesS
BT 5 99	40.2	13.6	11.024	07.063	1.860	0.624	14.87	0.159	4.17	03.0	96.59	006.44	MesS
BT 6 22	33.2	12.3	05.414	08.273	1.112	0.472	28.60	0.280	5.67	03.2	98.46	045.00	MelH
BT 6 34	69.5	15.7	00.755	00.635	7.967	0.125	02.97	0.015	0.17	01.0	98.84	000.07	MelH
BT 6 43	40.9	13.0	12.227	06.400	1.550	0.313	18.16	0.181	4.17	02.6	99.49	010.70	MelH
BT 6 53	40.0	11.3	11.290	07.643	1.442	0.395	20.31	0.226	4.67	02.0	99.31	029.20	MelH
BT 6 62	38.3	10.8	11.108	08.025	1.219	0.480	22.02	0.222	4.84	02.6	99.57	042.60	MelH
BT 6 65	38.7	11.1	11.947	07.279	1.039	0.370	18.88	0.198	4.84	02.8	97.21	025.60	MelH
BT 6 75	37.9	12.1	11.108	06.350	1.361	0.383	17.59	0.173	3.34	03.0	93.25	007.48	MelH
BT 6 93	36.6	10.4	10.870	07.494	1.132	0.289	20.74	0.201	4.50	02.0	94.19	053.50	MelH
BT 6 97	37.2	10.4	11.402	07.527	1.321	0.349	20.45	0.205	5.00	01.6	95.47	039.50	MelH
BT 8 31	48.8	19.1	06.925	01.658	4.475	1.386	06.42	0.089	1.18	02.8	92.79	05.660	BHS
BT 8 42	37.4	10.0	09.681	07.279	1.847	0.769	19.59	0.298	5.17	01.4	93.48	033.60	BHS
BT 8 73	41.1	14.0	09.261	04.891	3.249	0.653	13.41	0.227	2.90	02.6	92.24	010.90	LS
BT 8 86	35.9	09.3	09.163	07.527	1.914	1.195	20.02	0.323	5.34	01.6	92.27	064.80	LS
BT 8 96	49.2	19.3	09.331	02.852	4.489	1.374	09.28	0.133	1.95	01.8	99.68	020.30	LS
BT 9 38	98.0	00.2	00.238	00.036	0.046	0.057	00.46	0.006	0.03	00.2	99.23	000.00	MesS
BT 9 56	36.8	17.6	09.583	04.145	1.318	1.131	12.36	0.121	1.92	03.8	88.73	048.90	MesS
BT 9 66	36.6	20.2	11.500	02.437	1.591	2.133	07.72	0.079	1.25	05.2	88.70	008.08	MesS
BT 9 67	34.0	13.4	11.514	05.389	1.302	1.142	17.30	0.185	2.92	03.8	90.98	075.30	MesS
BT 9 78	38.7	21.2	09.471	02.172	2.211	1.735	08.21	0.070	1.22	05.6	90.56	011.30	MesS
BT 9 96	37.9	20.2	11.724	01.152	2.130	2.639	10.47	0.120	2.34	11.2	99.84	000.25	MesS
GE-1	38.1	13.2	14.550	06.649	1.320	0.713	20.02	0.190	3.52	01.6	99.86	166.00	
GE-2	38.3	12.5	14.410	07.643	0.895	1.165	20.16	0.194	3.19	01.4	99.81	121.00	
95-1 39	40.6	07.9	15.300	13.380	0.890	0.584	14.87	0.223	2.65	9.9	99.99	059.80	PS
95-1 46	40.4	07.6	14.425	14.410	0.777	0.528	17.16	0.227	2.74	1.6	99.88	078.60	PS
95-1 73	37.7	06.6	17.070	11.656	0.767	0.236	19.73	0.241	5.17	0.6	99.99	101.00	MesS
95-1 75	42.6	25.3	14.555	02.437	2.238	1.670	06.33	0.083	1.28	3.4	99.99	015.90	MesS
95-1 90	40.4	23.6	16.090	03.084	2.035	0.880	08.57	0.103	1.63	3.4	99.99	022.50	MesS
95-1 112	42.2	23.4	14.690	03.034	1.779	1.789	08.37	0.107	1.57	2.8	99.90	031.30	MesS
95-1 135	38.3	11.5	16.090	09.119	1.096	0.715	17.16	0.210	4.34	1.4	99.94	085.80	MesS
95-1 162	41.3	22.9	14.690	03.349	1.712	1.892	09.27	0.112	1.65	3.0	99.81	028.10	MesS
95-1 175	35.9	08.7	16.510	10.164	0.666	0.378	20.88	0.285	5.17	1.2	99.87	121.00	MesS
95-1 189	40.4	23.6	15.530	03.316	1.645	1.888	09.09	0.103	1.62	2.6	99.62	032.70	MesS
95-1 213	35.3	09.4	14.830	09.401	0.960	0.606	22.02	0.239	5.50	1.6	99.90	138.00	MesS
95-1 229	58.6	16.6	08.117	00.204	9.234	0.106	04.60	0.063	0.45	1.2	99.26	000.30	MelS
95-1 237	41.3	21.2	13.500	04.311	1.806	1.747	11.10	0.121	2.17	2.8	99.96	045.50	Ho
95-1 248	40.0	21.3	15.670	03.996	1.604	1.458	11.21	0.124	2.15	2.4	99.96	052.20	MelS

Sample Number	SiO_2 %	Al_2O_3 %	CaO %	MgO %	Na_2O %	K_2O %	Fe_2O_3 %	MnO %	TiO_2 %	L0I %	Total %	Susc. emu * 10^3	Rock Types
95-1 256	38.1	20.8	17.770	02.964	1.901	1.001	08.77	0.099	1.53	7.0	99.91	020.00	MesS
95-1 270	38.1	16.1	14.970	06.731	1.456	0.636	16.02	0.187	3.67	2.0	99.80	095.90	MesS
95-1 290	42.6	21.5	15.530	03.333	2.143	0.699	09.87	0.102	1.67	2.0	99.66	035.00	MesS
95-2 10	49.9	17.0	13.800	6.633	1.941	0.158	15.59	0.155	5.34	0.2	99.98	053.10	BS
95-2 40	18.1	16.1	05.300	2.750	5.325	2.880	07.09	0.124	2.04	0.6	99.67	006.10	BS
95-2 61	51.1	17.2	06.800	3.465	4.866	2.506	10.52	0.167	2.60	0.4	99.67	024.70	BS
95-2 86	49.2	15.5	08.800	3.813	4.246	1.723	12.17	0.218	3.37	0.2	99.60	027.10	BA
95-2 95	45.3	13.0	11.800	5.405	3.330	0.847	15.59	0.296	3.44	0.2	99.29	061.80	M
95-2 102	44.7	13.8	11.400	5.272	3.491	0.894	15.87	0.288	4.00	0.2	99.92	063.50	M
95-2 114	44.9	12.8	11.400	5.272	3.494	0.927	16.30	0.298	4.00	0.2	99.72	073.50	M
95-2 135	45.3	13.2	10.600	5.256	3.896	1.326	15.59	0.342	3.24	1.0	99.90	123.00	M
95-2 140	38.3	11.1	10.200	5.654	2.790	1.253	23.74	0.412	5.84	0.6	99.88	026.50	M
95-2 148	44.5	14.0	11.400	5.554	3.869	1.204	15.16	0.315	3.22	0.6	99.80	050.70	A
95-2 159	49.8	17.9	08.600	3.067	5.513	1.675	10.73	0.165	2.09	0.4	99.80	025.60	A
95-2 172	47.3	12.3	04.700	1.708	4.934	2.976	21.59	0.473	3.70	0.0	99.64	133.00	BA
95-2 185	42.6	13.0	09.500	4.100	4.000	1.500	19.31	0.350	4.84	0.0	99.11	100.00	A
95-2 200	54.8	19.6	03.100	0.450	6.200	2.500	08.54	0.140	1.55	2.4	99.20	016.90	MesA
95-2 208	34.2	05.1	09.890	3.000	2.300	1.000	35.89	0.790	6.84	0.0	99.03	265.00	M
95-2 211	36.4	03.8	13.100	4.100	1.900	0.800	33.32	0.840	5.67	0.0	99.61	201.00	A
95-2 215	36.4	02.8	15.100	4.200	1.700	0.500	32.75	0.820	5.17	0.0	99.46	184.00	A
95-2 225	43.4	15.5	09.890	4.600	4.000	1.000	15.02	0.260	5.00	1.2	99.90	053.60	BHA
95-2 235	60.5	20.0	04.160	0.800	7.200	2.700	02.65	0.070	0.35	0.6	99.93	008.30	BHA
95-2 250	40.2	13.8	11.860	6.200	3.100	0.500	17.59	0.300	6.17	0.2	99.82	055.90	BHA
95-2 266	45.1	14.5	10.380	5.100	3.900	0.900	15.44	0.290	3.97	0.2	99.82	055.90	PA
95-2 279	46.2	16.4	09.990	4.400	4.200	1.200	13.28	0.220	3.09	0.4	99.41	050.70	BA
95-2 292	51.5	18.1	07.200	3.000	5.300	1.700	09.95	0.150	1.70	0.6	99.22	034.50	BA
95-2 297	40.6	14.0	13.260	7.200	2.700	0.290	16.59	0.210	4.50	0.2	99.47	057.60	BA
95-3 147	57.6	17.9	01.450	0.530	4.900	5.900	07.21	0.200	0.37	3.6	99.88	005.40	MesS
95-3 206	61.6	19.1	00.860	0.120	6.600	6.200	04.19	0.100	0.12	1.2	100.00	031.70	MesS
95-3 219	59.9	19.1	01.670	0.210	6.500	6.300	04.92	0.150	0.15	1.0	99.87	006.50	MesS
95-3 227	60.3	18.5	01.890	0.200	6.300	6.000	04.93	0.120	0.18	1.4	99.86	009.30	MesS
95-3 238	57.8	18.1	02.530	0.390	6.200	6.200	07.26	0.220	0.32	1.0	99.97	009.50	MesS

Sample Number	SiO_2 %	Al_2O_3 %	CaO %	MgO %	Na_2O %	K_2O %	Fe_2O_3 %	MnO %	TiO_2 %	LOI %	Total %	Susc. emu * 10^3	Rock Types
96-1 58	35.1	15.1	17.348	8.787	1.955	0.511	16.16	0.194	3.62	1.0	99.76	63.70	MelS
96-1 78	27.8	11.3	17.348	9.235	1.132	0.571	23.60	0.320	6.34	1.8	99.48	95.60	MelS
96-1 110	31.7	8.1	18.467	12.800	0.685	0.184	22.02	0.267	4.84	1.2	100.24	126.00	MelS
96-1 159	32.5	13.8	18.327	8.489	1.523	0.529	18.30	0.218	3.80	2.8	100.30	118.00	MelS
96-1 193	1.5	0.9	3.749	0.086	0.024	0.019	60.92	0.009	0.03	30.6	97.88	2.51	PYR
96-1 200	33.2	12.5	21.405	9.865	1.388	0.221	15.44	0.210	2.69	2.6	99.44	36.40	MelS
96-1 216	43.4	22.9	16.228	4.642	3.478	1.723	4.50	0.075	0.62	3.2	100.75	0.29	MesS
96-1 238	26.3	10.8	14.368	9.086	0.891	0.337	30.75	0.225	6.00	0.8	99.53	200.00	MesS
96-1 250	31.0	14.0	15.949	8.721	1.388	0.490	22.88	0.173	4.00	1.2	99.80	110.00	MelS
96-1 273	29.5	10.8	14.634	9.981	0.957	0.407	27.17	0.190	5.17	1.2	100.00	90.60	MelS
96-1 297	29.3	11.7	13.486	8.837	1.335	0.495	27.74	0.221	4.84	2.0	99.97	145.00	MesS
96-1 300	27.2	10.0	13.976	9.948	0.971	0.246	30.46	0.256	5.84	1.0	99.87	186.00	M
96-2 55	36.6	19.5	11.836	6.400	2.116	0.768	16.73	0.178	2.30	3.2	99.56	0.79	MelD
96-2 74	53.7	15.9	5.484	2.288	1.564	1.003	14.44	0.089	1.28	3.8	99.51	4.40	MelD
96-2 222	33.2	7.6	9.905	10.230	0.864	0.519	34.32	0.200	0.88	2.2	99.83	40.50	MelD
96-2 362	51.1	22.9	4.533	1.476	4.543	6.097	2.86	0.052	2.69	1.8	98.02	0.00	MesD
96-2 363	46.6	16.8	3.008	8.157	2.278	1.832	12.60	0.148	1.53	6.4	99.40	0.01	MesD
96-2 382	44.5	17.8	8.296	6.101	2.669	2.097	13.54	0.201	1.60	2.6	99.36	0.93	LeuS
96-2 416	32.7	13.6	10.646	8.191	0.931	2.024	22.17	0.376	5.17	3.8	99.65	19.80	MesD
96-2 420	45.1	19.6	3.553	3.996	5.648	2.735	12.63	0.221	2.09	2.6	98.24	0.66	MesD,B
96-2 476	37.2	13.4	17.627	6.814	0.441	0.474	19.88	0.200	1.37	2.0	99.43	0.31	MelD,P
96-3 108	54.3	15.3	10.632	6.781	3.073	0.662	6.64	0.108	0.33	1.6	99.46	0.09	DG
96-3 174	40.2	14.2	8.352	8.605	2.629	2.097	16.45	0.288	1.87	4.4	99.06	0.51	LeuS
96-3 212	37.9	14.5	9.541	7.776	0.830	1.229	16.73	0.204	2.14	8.2	99.05	1.21	MelD
96-3 242	39.1	17.8	14.200	6.168	1.955	1.277	14.87	0.361	2.03	0.8	98.57	13.90	MelD
96-3 276	46.0	18.5	7.135	2.570	4.435	2.820	11.47	0.146	1.65	3.4	98.13	23.40	MesD

INDEX FOR ROCK TYPES

BS Biotite Syenite
HS Hornblende Syenite
MA Magnetite Anorthosite
HL Hornblende Lamprophyre
BHS Biotite-Hornblende Syenite
MS Magnetite Shonkinite
SP Shonkinite Porphyry
MesS Mescratic Syenite
MelS Melanocratic Syenite
MelH Melanocratic Hornblendite
MelD Melanocratic Diorite/Microdiorite
LeuS Leucosyenite
P Porphyry
PYR Pyrite
PS Pyroxene Syenite
HO Hornfels
A Anorthosite
M Magnetite
BA Biotite Anorthosite
MesA Mesocratic Anorthosite
MagA Magnetitic Anorthosite
BHA Biotite-HornblendeAnorthosite
PA Pyrrhotite Anorthosite
LS Leucocratic Syenite
MesD Mesocratic
B Breccia
DG Diorite Gneiss

Table 3:

Average susceptibility and estimated magnetite content for twelve holes and the boulder.

Hole No.	Susceptibility emu	Magnetite Content (volume) Gaucher (maximum)	Bath
94-1	.045	21	14
94-2	.020	15	8
94-3	.041	20	13
94-4	.066	25	18
94-5	.012	14	5
94-6	.029	18	10
94-7 Bottom only	.023	16	8
94-8	.018	15	7
94-9	.012	13	5
95-1	.412		
95-2	.569		
95-3	.068		
boulder	.215	44	43

TABLE 4

Distribution of Fe and Ti after magnetic separation

SAMPLE						MAGNETIC SEPARATE					SAMPLE	
Number	Susceptibility emu	Fe_2O_3 %	Fe %	TiO_2 %	Ti %	Total Recovery %	Fe %	Ti %	Other	Fe in MAGNETITE *	Fe **	Ti
BT 4-52	100	34.75	24.3	8.17	4.90	22.1	55	11.9	6	43	9.5	2.6
BT 4-71	83	27.74	19.4	7.01	4.21	21.7	51	11.4	10	38	8.2	2.5
BT 4-93	47	20.45	14.3	3.84	2.30	10.8	54	10.9	8	41	4.4	1.2
BT 5-35	16	19.02	13.3	5.67	3.40	13.1	29	7.0	49	21	2.8	0.9
BT 5-99	0.25	14.87	10.4	4.17	2.50	6.1	38	16.3	22	19	1.1	1.0
BT 6-22	45	28.60	20.0	5.67	3.40	20.7	45	8.7	21	35	7.0	1.8

* Assumes that Titanium in magnetic separate is in the form of Ilmenite $FeTiO_3$.

** This is Fe in magnetite form in the magnetic separate.

Table 5:

Total magnetic field, average susceptibility and Magnetite content in the holes (weight).

Hole Number	Susceptibility (emu * 10^3)	Magnetite	Total Field (IGRF removed NT)
94-1	45.3	3.68	2703
94-2	19.6	1.59	2583
94-3	41.1	3.34	1351
94-4	66.5	5.40	2591
94-5	12.0	0.98	1068
94-6	28.8	2.34	543
94-7	22.9	1.86	1623
94-8	18.0	1.47	1172
94-9	12.1	0.98	844
95-1	41.2	3.35	1876
95-2	56.9	4.63	3255
95-3	6.83	0.55	1011

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′

MASTER MINERAL RESOURCE SERVICES LTD.
Pilsum Master, M.Sc., P.Geol
Industrial Minerals - Market Development, Technical Advice, Evaluation
AutoCAD, Computer Imaging, Mineralogy (Diamond Indicator Minerals)

APPENDIX 2

To: Lorne Kelsch
BT Resource Development
c/o TerraMin Research Labs Ltd.
Calgary, Alberta

From: Pilsum Master, P.Geol.
Master Mineral Resource Services Ltd.

Date: January 19, 1995.

Re.: Petrology of BT 4- and BT 5 - samples

To determine the petrology and identification of rock samples, thin section petrography is normally completed, supplemented by major element chemical analysis.

The major element chemical analysis was completed for the suite of samples, and was made available for interpretation. Also, the rejects from each sample were preserved and submitted for examination under a petrographic binocular microscope with a magnification between 10X and 40X. The petrological descriptions and the mineralogy determined are preliminary, and can only be confirmed by detailed mineralogical examination, e.g. thin sections.

NORM MINERALOGICAL ANALYSIS BY CALCULATION FROM CHEMICAL ANALYSIS:

It was felt that the results of the preliminary petrological examination could be supplemented by the data from the chemical analysis. The technique described below is used for igneous rocks, and calculates the theoretical mineral composition or *norm (normalisation of chemical composition for comparison)*. Although the petrological examination revealed that the rocks are probably from a contact zone of an igneous body, the NORM CALCULATIONS are useful to compare the samples, and determine their unique characters.

It is emphasised that the mineralogical composition of an igneous rock, expressed as weight or volume percentages of microscopically identified minerals, i.e. the *mode* (modal composition) of the rock is not determined here. In the norm calculations the various oxide components as determined by chemical analysis are combined in a series of steps to form a series of normative mineral components.

32 Midpark Gardens S.E., Calgary, Alberta, Canada T2X 1N7 • Telephone (403) 256-6220

The complete calculations require completion of a number of sequence of oxide combinations so that eventually the calculated normative minerals correspond broadly with those present modally in any igneous rock which crystallised slowly at low pressure. Thus insufficient silica to form quartz or to be applied to other rock forming minerals like pyroxene, suggests that the rock is undersaturated in silica, and normative olivine (instead of hypersthene), normative nepheline and/or leucite instead of feldspars are recalculated. In this exercise, calculations were only taken to the point where deficiency in silica -- no free quartz -- is indicated. A more complete calculation is warranted if selected members of the rock suite are subjected to modal analysis (thin section) and the data used to calculate the norms for the rest of the samples.

The *norms* of samples BT4-52, BT4-85, BT 4-93, BT5-24, BT5-46 were completed to the determination of quartz, and are enclosed. The calculations indicate that a substantial portion of the Fe occurs as magnetite, there is no free quartz, and very little potassic feldspar. The silicate minerals are mainly sodic feldspar and plagioclase, although feldspathoid minerals can be present. The ferro magnesian minerals are mainly diopsidic pyroxene, with a strong indication of enstatic (Mg) component. Presence of Ca-silicates is likely due to the high proportion of wollastonite (skarn?). Complex hydrous modal minerals like amphibole and mica cannot be calculated by these methods directly.

None of the five samples match the norms of common igneous rock types.

The rocks are tentatively identified as diorite (>50% mafic) from the contact zone (probably a skarn) with undetermined country rock. A major component is magnetite, and sufficient titanium is present to indicate the existence of ilmenite.

PETROGRAPHIC EXAMINATION:

Laboratory rejects of thirteen samples of the BT 4- series and 7 samples of the BT 5-series were examined under hand lens and a 10-40X binocular microscope. In addition, the samples were tested for carbonate by 10% HCl acid at room temperature, and for magnetism by a hand-held magnetic stud finder. The terms used to describe the carbonate content and magnetic properties are subjective, e.g. weak, strong.

BT 4 -20:
Dioritic,≥50% mafic
Mafics, lath shaped diopsidic pyroxene and/or hornblende, biotite, magnetite.
Felsic, lath shaped opaque, white, prismatic cleavage -- feldspar (?)
Slight effervescence with 10% HCl
Strong magnetic.

BT 4 - 25:
same as BT4-20, less green more dark mafic component.

BT 4- 7:
same as BT 4- 20, slightly finer grained

BT 4- 31, - 40, -43:
same as BT 4-20

BT 4- 52:
same as BT 4- 20, except less (< 50%) light coloured component, and more magnetic.

BT 4 - 57:
same as BT 4 -20

BT 4 - 65:
same as BT 4-20, except stronger response to 10% HCl -- more CO_3, calcite grains recognisable, some H_2S smell with acid --- sulphide in matrix (?).

BT 4 - 71:
same as BT 4- 65

BT 4 - 78:
same as BT 4 - 65.

BT 4- 85:
same as BT 4 -65, except weakly magnetic

BT 4 - 93:
same as BT 4 - 65.

BT 5 - 24:
Dioritic, 50% mafics.
Mafics mainly diopsidic pyroxene and/or hornblende.
Light coloured minerals: opaque dull lustre (not like feldspar), hardness > 5, not possible to id..
Some effervescence with 10% HCl
Weakly magnetic.

BT 5 - 35:
More like BT4-20 than BT 5-24 with less of the sheet like mafic minerals present. Light coloured mineral laths look like feldspar phenocrysts.
Little or no reaction to 10% HCl
Weakly magnetic.

BT 5- 46:
same as BT 5 - 35, except some effervescence with 10% HCl.

BT 5- 60:
same as BT 5 - 46.

BT 5 - 74:
Dioritic, light coloured feldspar (?) laths not all lath shaped, smaller more irregular in form, some with ochre colour.
No magnetic reaction
Medium effervescence with 10% HCl

BT 5 - 88:
same as BT 5- 74, except green "albitic" phenocrysts.

BT 5 - 99:
same as BT 5 - 88, except weakly magnetic and a slight response to 10% HCl.

CONCLUSIONS AND RECOMMENDATIONS:

The samples represent a contact zone of a dioritic intrusion. The mode of origin of the magnetite is not possible to determine. Presence of Ca-silicate minerals is suspected but cannot be confirmed, nor can the presence of skarn type of mineralisation be determined. Modal mineralogical determinations using thin section petrography of atleast three representative samples of each of the series is recommended. The modal compositions can then be used to compare the remainder of the sample suite using their major element chemical analysis. For this normative calculations can be used with more confidence.

January 19, 1995

Pilsum P. Master, P.Geol.

DETERMINATIVE PETROLOGY. SAMPLE: BT 5 – 24 PROJECT: 26 BT RESOURCE DEVELOPMENT

NORM CALCULATIONS BY CIPW METHOD. MASTER MINERAL RESOURCE SERVICES LTD.

Reported Fe2O3: 11.57 All Fe recalculated and assigned to FeO

CONSTITUENTS		SiO2	Al2O3	FeO (calc.)	Fe2O3(calc)	MgO	CaO	Na2O	K2O	TiO2	MnO	LOI	TOTAL	MOLECULAR PROPORTIONS	MOLECULAR WEIGHTS	NORM % WEIGHT MINERAL	
WEIGHT %,CHEM.ANAL.		42.60	17.80	10.44	0.00	3.02	6.59	3.71	1.43	2.10	0.15	2.40	90.23				
MOLECULAR WTS.		60.00	102.00	160.00	72.00	40.00	56.00	62.00	94.00	80.00	71.00						
MOLECULAR PROP.		710.00	174.51	65.23	0.00	75.45	117.68	59.79	15.26	26.25	2.06						
ADJUSTED MOL.PROP.				67.39													
ILMENITE				30.29						30.29				0.03	152.00	4.60	ILMENITE
SPHENE(TITANITE)																	SPHENE(TITANITE)
RUTILE										−4.04				−0.00	80.00	−0.32	RUTILE
ORTHOCLASE		91.53	15.26						15.26					0.02	556.00	8.43	ORTHOCLASE
ALBITE		358.74	59.79					59.79						0.06	524.00	31.33	ALBITE
ANORTHITE		186.93	93.46				93.46							0.10	278.00	27.65	ANORTHITE
MAGNETITE				34.84	0.00									0.03	232.00	8.11	MAGNETITE
HEMATITE					0.00									0.00	160.00	0.00	HEMATITE
	Fe			0.46										0.00	132.00	0.08	ferrosilite
DIOPSIDE	Mg	135.86				17.71								0.14	100.00	13.59	DIOPSIDE enstatite
	Ca						117.68							0.12	116.00	13.65	wollastonite
OLIVINE		0.93		−0.04										−0.00	132.00	−0.01	OLIVINE fayalite
	Mg					0.97								0.00	100.00	0.10	forsterite
QUARTZ		−75.83												−0.06	60.00	−4.56	QUARTZ
CORUNDUM			0.00											0.00	102.00	0.00	CORUNDUM
																102.53	Total

DETERMINATIVE PETROLOGY. SAMPLE: BT 4 – 55 PROJECT: 26 BT RESOURCE DEVELOPMENT

NORM CALCULATIONS BY CIPW METHOD. MASTER MINERAL RESOURCE SERVICES LTD.

Reported Fe2O3: 24.02 All Fe recalculated and assigned to FeO

CONSTITUENTS		SiO2	Al2O3	FeO (calc.)	Fe2O3(calc)	MgO	CaO	Na2O	K2O	TiO2	MnO	LOI	TOTAL	MOLECULAR PROPORTIONS	MOLECULAR WEIGHTS	NORM % WEIGHT MINERAL		
WEIGHT %,CHEM.ANAL.		35.50	9.10	21.57	0.00	7.44	10.42	2.04	0.25	6.00	0.41	−1.20	91.63					
MOLECULAR WTS.		60.00	102.00	160.00	72.00	40.00	56.00	62.00	94.00	80.00	71.00							
MOLECULAR PROP.		591.67	89.22	135.43	0.00	186.10	186.13	32.82	2.67	75.00	5.82							
ADJUSTED MOL.PROP.				141.24														
ILMENITE				30.29						30.29				0.03	152.00	4.60	ILMENITE	
SPHENE(TITANITE)																	SPHENE(TITANITE)	
RUTILE										44.71				0.04	80.00	3.58	RUTILE	
ORTHOCLASE		16.02	2.67						2.67					0.00	556.00	1.48	ORTHOCLASE	
ALBITE		196.94	32.82					32.82						0.03	524.00	17.20	ALBITE	
ANORTHITE		107.45	53.72				53.72							0.05	278.00	14.93	ANORTHITE	
MAGNETITE				105.14	0.00	[illegible]								0.11	232.00	24.39	MAGNETITE	
HEMATITE					0.00									0.00	160.00	0.00	HEMATITE	
	Fe			4.01										0.00	132.00	0.53		ferrosilite
DIOPSIDE	Mg	318.53				128.39								0.32	100.00	31.85	DIOPSIDE	enstatite
	Ca						186.13							0.19	116.00	21.58		wollastonite
OLIVINE		0.94		−0.02										−0.00	132.00	−0.00	OLIVINE	fayalite
	Mg					0.97								0.00	100.00	0.10		forsterite
QUARTZ		−48.21												−0.05	60.00	−2.89	QUARTZ	
CORUNDUM			0.00											0.00	102.00	0.00	CORUNDUM	
																117.37	Total	

DETERMINATIVE PETROLOGY. SAMPLE: BT 4 – 93 PROJECT: 26 BT RESOURCE DEVELOPMENT
NORM CALCULATIONS BY CIPW METHOD. MASTER MINERAL RESOURCE SERVICES LTD.
Reported Fe2O3: 20.45 All Fe recalculated and assigned to FeO

CONSTITUENTS		SiO2	Al2O3	FeO (calc.)	Fe2O3(calc)	MgO	CaO	Na2O	K2O	TiO2	MnO	LOI	TOTAL
WEIGHT %, CHEM. ANAL.		39.40	11.10	16.45	0.00	6.30	10.37	2.65	0.31	3.64	0.34	−0.60	92.16
MOLECULAR WTS.		60.00	102.00	160.00	72.00	40.00	56.00	62.00	94.00	80.00	71.00		
MOLECULAR PROP.		656.67	108.82	115.30	0.00	157.50	185.13	42.84	3.31	46.00	4.83		
ADJUSTED MOL. PROP.				120.13									
ILMENITE				30.29						30.29			
SPHENE(TITANITE)													
RUTILE										17.71			
ORTHOCLASE		19.86	3.31						3.31				
ALBITE		257.03	42.54					42.64					
ANORTHITE		125.35	62.68				62.68						
MAGNETITE				65.01	0.00								
HEMATITE					0.00								
	Fe			3.64									
DIOPSIDE	Mg	307.57				118.80							
	Ca						185.13						
OLIVINE		0.95		−0.02									
	Mg					0.87							
QUARTZ		−54.09											
CORUNDUM			0.00										

MOLECULAR PROPORTIONS	MOLECULAR WEIGHTS	NORM % WEIGHT MINERAL		
0.03	152.00	4.60	ILMENITE	
			SPHENE(TITANITE)	
0.02	80.00	1.42	RUTILE	
0.00	556.00	1.84	ORTHOCLASE	
0.04	524.00	22.45	ALBITE	
0.06	278.00	17.42	ANORTHITE	
0.09	232.00	19.72	MAGNETITE	
0.00	160.00	0.00	HEMATITE	
0.00	132.00	0.46		ferrosilite
0.31	100.00	30.76	DIOPSIDE	enstatite
0.19	116.00	21.47		wollastonite
−0.00	132.00	−0.00	OLIVINE	fayalite
0.00	100.00	0.10		forsterite
−0.05	60.00	−3.25	QUARTZ	
0.00	102.00	0.00	CORUNDUM	
		117.02	Total	

DETERMINATIVE PETROLOGY. SAMPLE: BT 4 – 55 PROJECT: 28 BT RESOURCE DEVELOPMENT

NORM CALCULATIONS BY CIPW METHOD. MASTER MINERAL RESOURCE SERVICES LTD.

Reported Fe2O3: 24.02 All Fe recalculated and assigned to FeO

CONSTITUENTS		SiO2	Al2O3	FeO (calc.)	Fe2O3(calc)	MgO	CaO	Na2O	K2O	TiO2	MnO	LOI	TOTAL	MOLECULAR PROPORTIONS	MOLECULAR WEIGHTS	NORM % WEIGHT MINERAL	
WEIGHT %.CHEM.ANAL.		35.50	9.10	21.67	0.00	7.44	10.42	2.04	0.25	6.00	0.41	−1.20	91.68				
MOLECULAR WTS.		60.00	102.00	160.00	72.00	40.00	56.00	62.00	94.00	80.00	71.00						
MOLECULAR PROP.		591.67	89.22	135.43	0.00	186.10	186.13	32.52	2.67	75.00	5.82						
ADJUSTED MOL.PROP.				141.24													
ILMENITE				30.29						30.29				0.03	152.00	4.60	ILMENITE
SPHENE(TITANITE)																	SPHENE(TITANITE)
RUTILE										44.71				0.04	80.00	3.58	RUTILE
ORTHOCLASE		16.02	2.67						2.67					0.00	556.00	1.48	ORTHOCLASE
ALBITE		195.94	32.52					32.52						0.03	524.00	17.20	ALBITE
ANORTHITE		107.45	53.72				53.72							0.05	278.00	14.93	ANORTHITE
MAGNETITE				105.14	0.00									0.11	232.00	24.39	MAGNETITE
HEMATITE					0.00									0.00	160.00	0.00	HEMATITE
	Fe			4.01										0.00	132.00	.0.53	ferrosilite
DIOPSIDE	Mg	318.53				128.39								0.32	100.00	31.85	DIOPSIDE enstatite
	Ca						186.13							0.19	116.00	21.58	wollastonite
OLIVINE		0.94		−0.02										−0.00	132.00	−0.00	OLIVINE fayalite
	Mg					0.97								0.00	100.00	0.10	forsterite
QUARTZ		−48.21												−0.05	60.00	−2.89	QUARTZ
CORUNDUM			0.00											0.00	102.00	0.00	CORUNDUM
																117.37	Total

DETERMINATIVE PETROLOGY. SAMPLE: BT 5 – 45 PROJECT: 26 BT RESOURCE DEVELOPMENT

NORM CALCULATIONS BY CIPW METHOD. MASTER MINERAL RESOURCE SERVICES LTD.

Reported Fe2O3: 19.45 All Fe recalculated and assigned to FeO

CONSTITUENTS		SiO2	Al2O3	FeO (calc.)	Fe2O3(calc)	MgO	CaO	Na2O	K2O	TiO2	MnO	LOI	TOTAL	MOLECULAR PROPORTIONS	MOLECULAR WEIGHTS	NORM % WEIGHT MINERAL		
WEIGHT %,CHEM.ANAL.		38.70	13.60	17.55	0.00	6.98	10.41	1.81	0.88	6.00	0.21	1.80	97.92					
MOLECULAR WTS.		60.00	102.00	160.00	72.00	40.00	56.00	62.00	94.00	80.00	71.00							
MOLECULAR PROP.		645.00	133.33	109.66	0.00	174.50	185.89	29.13	9.34	75.00	2.89							
ADJUSTED MOL.PROP.				112.55														
ILMENITE				50.29						50.29				0.03	152.00	4.60	ILMENITE	
SPHENE(TITANITE)																	SPHENE(TITANITE)	
RUTILE										44.71				0.04	80.00	3.58	RUTILE	
ORTHOCLASE		56.04	9.34						9.34					0.01	556.00	5.19	ORTHOCLASE	
ALBITE		174.77	29.13					29.13						0.03	524.00	15.26	ALBITE	
ANORTHITE		189.73	94.86				94.86							0.09	278.00	26.37	ANORTHITE	
MAGNETITE				79.37	0.00									0.08	232.00	18.41	MAGNETITE	
HEMATITE					0.00									0.00	160.00	0.00	HEMATITE	
	Fe			1.48										0.00	132.00	0.20		ferrosilite
DIOPSIDE	Mg	276.89				89.53								0.28	100.00	27.89	DIOPSIDE	enstatite
	Ca						185.88							0.18	116.00	21.56		wollastonite
OLIVINE		0.97		−0.02										−0.00	132.00	−0.00	OLIVINE	fayalite
	Mg					0.98								0.00	100.00	0.10		forsterite
QUARTZ		−53.40												−0.05	60.00	−3.20	QUARTZ	
CORUNDUM			0.00											0.00	102.00	0.00	CORUNDUM	
																119.78	Total	

TERRAMIN RESEARCH LABS LTD.

APPENDIX 3

ANALYTICAL REPORT

26 BT Resource Dev't.

Lorne Kelsch

Date: January 27, 1995

Job No: 95-014

Project:

P.O. No:

20 Core

Signed: ____________________

14-2235 30th Avenue N.E., Calgary, Alberta, T2E 7C7
Phone (403) 250-9460 Fax (403) 291-7064

TERRAMIN RESEARCH LABS Ltd.

Job No: 95-014

Client: 2G BT Resource Development
Project:

Sample Number		Magnetite %
BT-4	7	14.6
BT-4	20	9.5
BT-4	25	9.6
BT-4	31	9.6
BT-4	40	12.5
BT-4	43	14.1
BT-4	52	22.1
BT-4	57	8.0
BT-4	65	8.5
BT-4	71	21.7
BT-4	78	21.9
BT-4	85	14.3
BT-4	93	10.8
BT-5	24	4.1
BT-5	35	13.1
BT-5	46	10.2
BT-5	60	5.5
BT-5	74	6.2
BT-5	88	4.3
BT-5	99	6.1

APPENDIX 4

TERRAMIN RESEARCH LABS LTD.

ANALYTICAL REPORT

26 BT Resource Development
7203 Keewatin St. S.W.
Calgary, Alberta
T2V 2M6

Lorne Kelsch

Date: Sept. 1, 1995

Job No: 95-102

Project:

46 Samples

Signed: ____________

14, 2235 30th Avenue N.E., Calgary, AB, T2E 7C7
Phone: (403)250-9460 Fax: (403)291-7064

TERRAMIN RESEARCH LABS Ltd.

Job No: 95-102

Client: 26 BT Resources
Project:

ANALYSIS OF MAGNETIC FRACTION

Sample Number	Magnetics %	Fe %	Ti %
95-1 39	11.4	40.3	3.56
95-1 46	19.0	38.4	2.80
95-1 73	16.1	49.5	4.51
95-1 75	2.4	41.5	5.00
95-1 90	8.4	44.4	4.94
95-1 112	2.9	45.6	3.23
95-1 135	12.2	51.2	4.57
95-1 162	3.6	47.3	5.34
95-1 175	17.4	48.9	4.76
95-1 189	5.9	46.8	3.90
95-1 213	17.3	52.5	5.48
95-1 229	0.0	0.0	0.00
95-1 237	6.5	50.1	4.82
95-1 248	7.7	47.5	4.57
95-1 256	3.2	45.5	4.62
95-1 270	11.7	55.8	4.59
95-1 290	4.0	50.0	3.50
95-2 10	9.0	58.2	5.21
95-2 40	1.2	60.5	2.45
95-2 61	5.2	55.3	5.89
95-2 86	6.4	56.0	6.02
95-2 95	11.7	55.4	6.40
95-2 102	12.7	51.2	6.98
95-2 114	13.1	56.0	6.08
95-2 135	10.6	51.9	6.98
95-2 140	19.6	59.7	6.60
95-2 148	10.2	54.1	6.50
95-2 159	5.4	59.4	5.42
95-2 172	18.4	65.8	4.92
95-2 185	16.5	59.4	6.42
95-2 200	4.8	53.6	4.87
95-2 208	31.7	63.0	5.45
95-2 211	25.9	59.6	5.42
95-2 215	23.4	61.1	5.21
95-2 225	8.8	56.1	6.39
95-2 235	0.7	60.7	3.75
95-2 250	8.9	56.8	6.05
95-2 268	10.9	56.8	6.43
95-2 279	9.4	55.8	6.77
95-2 292	12.4	54.8	6.16

95-2 297	4.5	57.6	5.55
95-3 147	0.7	49.0	3.85
95-3 206	1.9	56.6	1.37
95-3 219	0.8	52.3	1.07
95-3 227	1.0	55.0	2.40
95-3 238	0.5	49.5	3.05

APPENDIX 5

TERRAMIN RESEARCH LABS Ltd.

Job No: 95-102

Client: 26 BT Resources
Project:

Sample Number	Ba ppm	Be ppm	Cr ppm	Li ppm	Rb ppm	Sr ppm	V ppm
95-1-229	10	2.9	52	3	4	227	30
95-2-200	1260	1.6	45	7	33	538	90
95-3-147	370	3.6	20	14	61	155	30

Sample Number	Ag ppm	Cd ppm	Co ppm	Cu ppm	Mo ppm	Ni ppm	Pb ppm	Zn ppm
95-1-229	<.1	0.2	2	5	4	3	1	7
95-2-200	<.1	0.1	7	8	3	1	4	65
95-3-147	<.1	0.3	2	18	2	1	6	108

APPENDIX 5

TERRAMIN RESEARCH LABS LTD.

ANALYTICAL REPORT

26 BT Resources Dev't
7203 Keewatin St. S.W.
Calgary, Alberta
T2V 2M6

Lorne Kelsch

Date: Nov. 29, 1996

Job No: 96-258

Project:

26 Rock Samples

Signed: ypmd

14, 2235 30th Avenue N.E., Calgary, AB, T2E 7C7
Phone: (403)250-9460 Fax: (403)291-7064

APPENDIX 5

TERRAMIN RESEARCH LABS Ltd.

Job No: 96- 258

Client: 26 BT Resources
Project:

Sample Number	Ba ppm	Be ppm	Cr ppm	Li ppm	Rb ppm	Sr ppm	V ppm
96-1- 58	160	1.1	370	12	27	882	380
96-1- 78	150	0.8	23	16	41	601	660
96-1- 110	70	0.9	530	13	13	510	450
96-1- 159	160	1.0	330	14	32	900	400
96-1- 193	30	0.2	114	23	35	162	80
96-1- 200	70	1.2	190	11	22	771	240
96-1- 216	330	1.3	49	20	72	1210	120
96-1- 238	70	0.7	38	14	23	437	770
96-1- 250	120	0.7	48	12	22	595	520
96-1- 273	130	0.7	67	12	24	420	640
96-1- 297	170	0.9	36	14	28	528	600
96-1- 300	100	0.7	39	14	19	269	840
96-2- 55	310	1.8	1390	26	35	804	480
96-2- 74	380	1.2	830	33	49	831	350
96-2- 222	220	1.6	520	17	29	143	300
96-2- 362	500	3.3	810	11	258	119	340
96-2- 363	230	3.2	1220	44	75	111	330
96-2- 382	460	1.5	870	21	90	362	360
96-2- 416	980	1.9	46	24	122	588	660
96-2- 420	3600	5.6	22	27	121	803	70
96-2- 476	120	2.3	590	11	21	1040	410
96-3- 108	80	4.1	114	12	46	459	100
96-3- 174	1600	15.6	330	33	491	180	340
96-3- 212	1710	2.0	390	32	78	495	400
96-3- 242	680	1.9	920	22	73	486	480
96-3- 276	440	3.6	23	13	99	369	70

TERRAMIN RESEARCH LABS Ltd.

Job No: 96- 258

Client: 26 BT Resources
Project:

Sample Number	Ag ppm	Cd ppm	Co ppm	Cu ppm	Mo ppm	Ni ppm	Pb ppm	Zn ppm	Au ppb
96-1- 193									8
96-1- 200									4
96-2- 55	0.1	0.1	89	157	3	530	2	47	
96-2- 74	0.1	0.1	27	8	2	130	5	31	
96-2- 222	0.1	0.1	44	23	1	112	1	58	
96-2- 362	0.5	0.1	16	15	3	34	4	14	
96-2- 363	0.1	0.1	33	38	2	220	1	54	
96-2- 382	0.3	0.1	79	15	1	138	4	44	
96-2- 416	0.1	0.1	45	56	2	34	6	138	
96-2- 420	0.2	0.1	12	7	1	2	4	66	
96-2- 476	0.1	0.1	70	28	4	144	11	49	

APPENDIX 6

TERRAMIN RESEARCH LABS LTD.

ANALYTICAL REPORT

26 BT Resources Dev't.
7203 Keewatin St. S.W.
Calgary, Alberta
T2V 2M6

Lorne Kelsch

Date: Nov. 17, 1995

Job No: 95-230

Project:

P.O. No:

13 Rock for Major, Minor, Trace Elements

Signed: [signature]

14, 2235 30th Avenue N.E., Calgary, AB, T2E 7C7
Phone: (403)250-9460 Fax: (403)291-7064

TERRAMIN RESEARCH LABS Ltd.

Job No: 95-230

Client: 26 BT Resources
Project:

Sample Number	Ba ppm	Be ppm	Cr ppm	Li ppm	Rb ppm	Sr ppm	V ppm
94-BT8-31	2520	1.3	33	13	30	1600	80
95-3 101	1050	3.5	91	15	131	151	30
95-3 147	490	3.3	25	11	135	147	20
95-3 149	740	5.0	26	12	151	398	30
95-3 168	670	2.2	79	18	160	113	20
95-3 202	80	2.5	62	28	177	36	10
95-3 223	740	3.2	83	14	127	170	30
95-3 253	1670	3.2	68	13	149	218	10
95-1-5-NW	200	0.7	35	21	19	1080	310
E-W1-2.5	1040	1.6	170	18	59	411	110
E-W2-2.3	640	1.1	156	17	45	174	110
MWS	1010	1.7	161	23	58	239	120
SS-3-4	510	0.8	62	17	14	842	330

Sample Number	Ag ppm	Cd ppm	Co ppm	Cu ppm	Pb ppm	Mo ppm	Ni ppm	Zn ppm
94-BT8-31	< 0.1	< 0.1	10	10	1	4	1	33
95-3 101	0.1	< 0.1	3	24	6	5	2	121
95-3 147	0.1	< 0.1	3	15	5	4	< 1	110
95-3 149	0.1	< 0.1	3	11	3	3	< 1	80
95-3 168	0.1	< 0.1	2	13	5	7	< 1	92
95-3 202	0.1	< 0.1	3	9	7	4	< 1	100
95-3 223	< 0.1	< 0.1	4	14	1	8	2	105
95-3 253	0.1	< 0.1	3	18	2	6	< 1	93
95-1-5-NW	< 0.1	< 0.1	24	7	1	2	1	31
E-W1-2.5	< 0.1	< 0.1	12	11	3	7	20	64
E-W2-2.3	0.1	< 0.1	9	13	7	6	21	50
MWS	0.1	0.1	12	31	9	3	41	74
SS-3-4	< 0.1	< 0.1	28	31	3	1	17	66

TERRAMIN RESEARCH LABS Ltd.

Job No: 95-230

Client: 26 BT Resources
Project:

Sample Number	SiO_2 %	Al_2O_3 %	CaO %	MgO %	Na_2O %	K_2O %	Fe_2O_3 %	MnO %	TiO_2 %	LOI %	Total %
94-BT8-31	51.3	21.5	6.883	1.708	5.136	1.398	6.95	0.094	1.25	2.7	99.01
95-3 101	58.4	17.6	1.959	0.623	5.190	5.302	8.04	0.232	0.35	1.6	99.23
95-3 147	57.3	18.7	1.357	0.531	5.028	5.615	7.88	0.181	0.33	3.3	100.26
95-3 149	57.5	17.8	2.140	0.400	3.222	6.266	6.58	0.435	0.27	5.3	99.85
95-3 168	57.8	18.1	1.875	0.317	5.352	6.652	7.04	0.173	0.25	1.9	99.43
95-3 202	58.8	18.1	1.182	0.206	5.405	5.567	6.26	0.156	0.13	2.7	98.56
95-3 223	57.5	17.9	2.490	0.368	5.972	5.338	8.59	0.209	0.25	1.2	99.93
95-3 253	58.2	17.8	2.462	0.459	5.527	6.013	8.08	0.208	0.37	0.5	99.52
95-1-5-NW	37.0	13.8	15.389	5.654	1.483	0.429	19.45	0.187	4.84	1.0	99.23
E-W1-2.5	67.4	13.2	2.071	1.472	3.020	2.326	6.55	0.101	0.93	2.4	99.45
E-W2-2.3	73.8	9.6	1.567	1.330	1.321	1.518	5.75	0.079	0.60	3.3	98.85
MWS	68.2	13.8	1.441	1.519	1.928	1.952	5.63	0.053	0.50	3.7	98.71
SS-3-4	43.0	16.4	10.003	5.256	2.022	0.406	15.30	0.178	4.17	3.1	99.88

Green lit...
94-3 & 94-4

STATEMENT OF COSTS

(October 3, 1996 to September 26, 1997)

BT 2, 3, 7 & 11

A. EXPLORATION COSTS

- Geological Field Trips (June 25/97 - July 31/97)	$ 5,748.30
- Field Trip (June 29/97 - July 5/97) 2 days X $200.00/day X 1 man	400.00
- Northern Mountain Helicopters	3,292.40
- 20% of $1,045.24 Transportation Expense	209.05
- 20% of $833.50 Transportation Expense	166.70
TOTAL EXPLORATION EXPENSES	**$ 9,816.45**

B. SAMPLE ANALYSIS

- Vancouver Petrographics - Thin Section Studies	$ 688.75
- Ed Kruchkowski - Thin Section Studies	200.00
- Terramin Research Laboratories Ltd.	1,230.85
TOTAL SAMPLE ANALYSIS EXPENSES	**$ 2,119.60**
TOTAL EXPENSES	**$11,936.05**

STATEMENT OF COSTS

(October 3, 1996 to September 26, 1997)

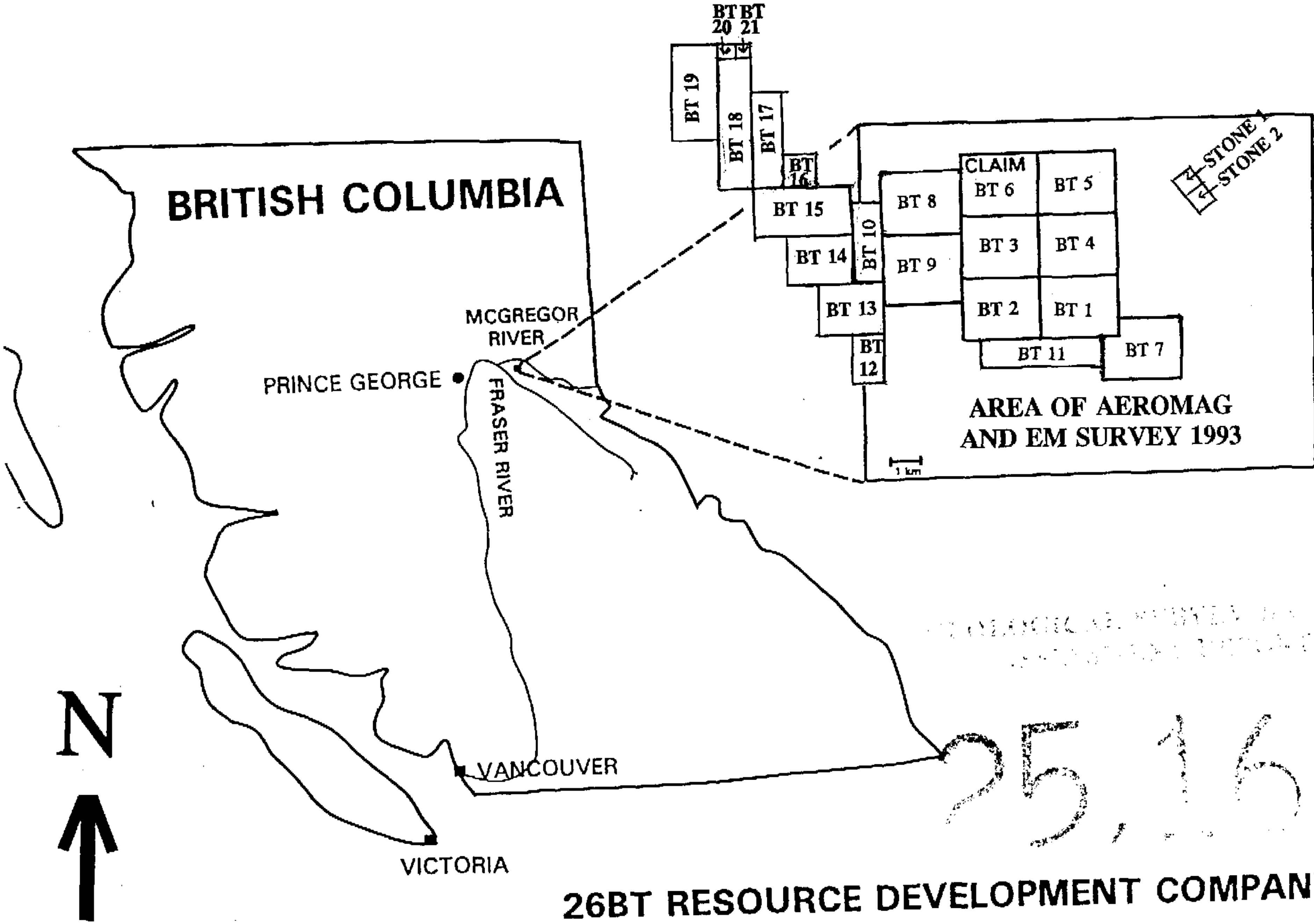
BT 1, 4, 5 & 6

A. EXPLORATION COSTS

- Dighem, A Division of CGG Canda Ltd.	$ 2,415.94
- Geological Field Trips (June 25/97 - July 31/97)	5,748.30
- Field Trip (June 29/97 - July 5/97) 2 days X $200.00/day X 1 man	400.00
- 20% of $1,045.24 Transportation Expense	209.05
- 20% of $833.50 Transportation Expense	166.70
TOTAL EXPLORATION EXPENSES	**$ 8,939.99**

B. SAMPLE ANALYSIS

- Vancouver Petrographics - Thin Section Studies	$ 688.75
- Ed Kruchkowski - Thin Section Studies	200.00
- Terramin Research Laboratories Ltd.	2,669.55
TOTAL SAMPLE ANALYSIS EXPENSES	**$ 3,558.30**
TOTAL EXPENSES	**$12,498.29**



25,164

26BT RESOURCE DEVELOPMENT COMPANY LTD.

CALGARY ALBERTA

FIGURE 1
AREA OF AEROMAG AND EM SURVEY 1993

MAP 1536G

FIGURE 2
AEROMAGNETIC MAP 1536G

SINCLAIR MILLS

BRITISH COLUMBIA

Mag
Geophysics
Department

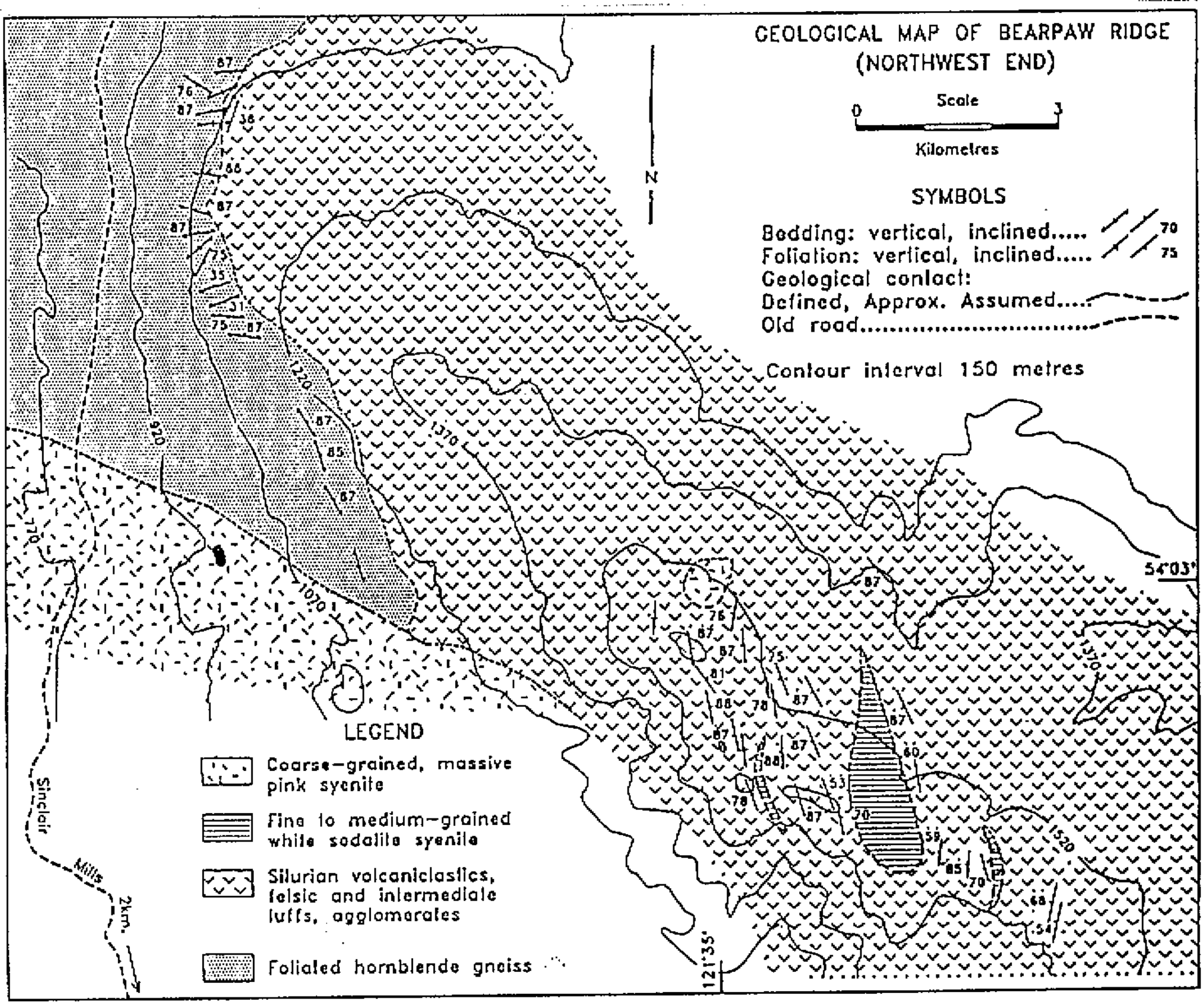


FIGURE 3
GEOLOGICAL MAP OF BEARPAW RIDGE

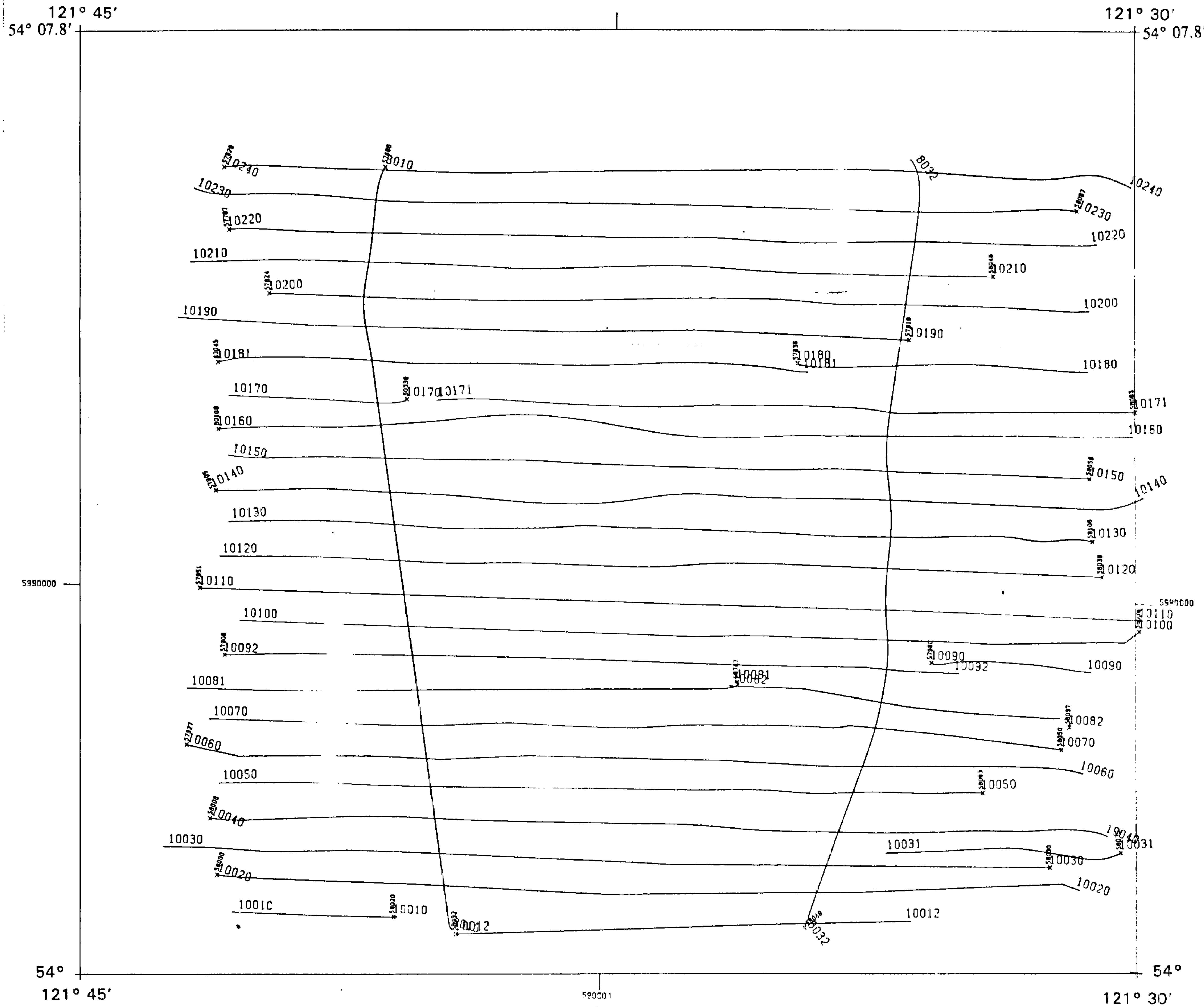


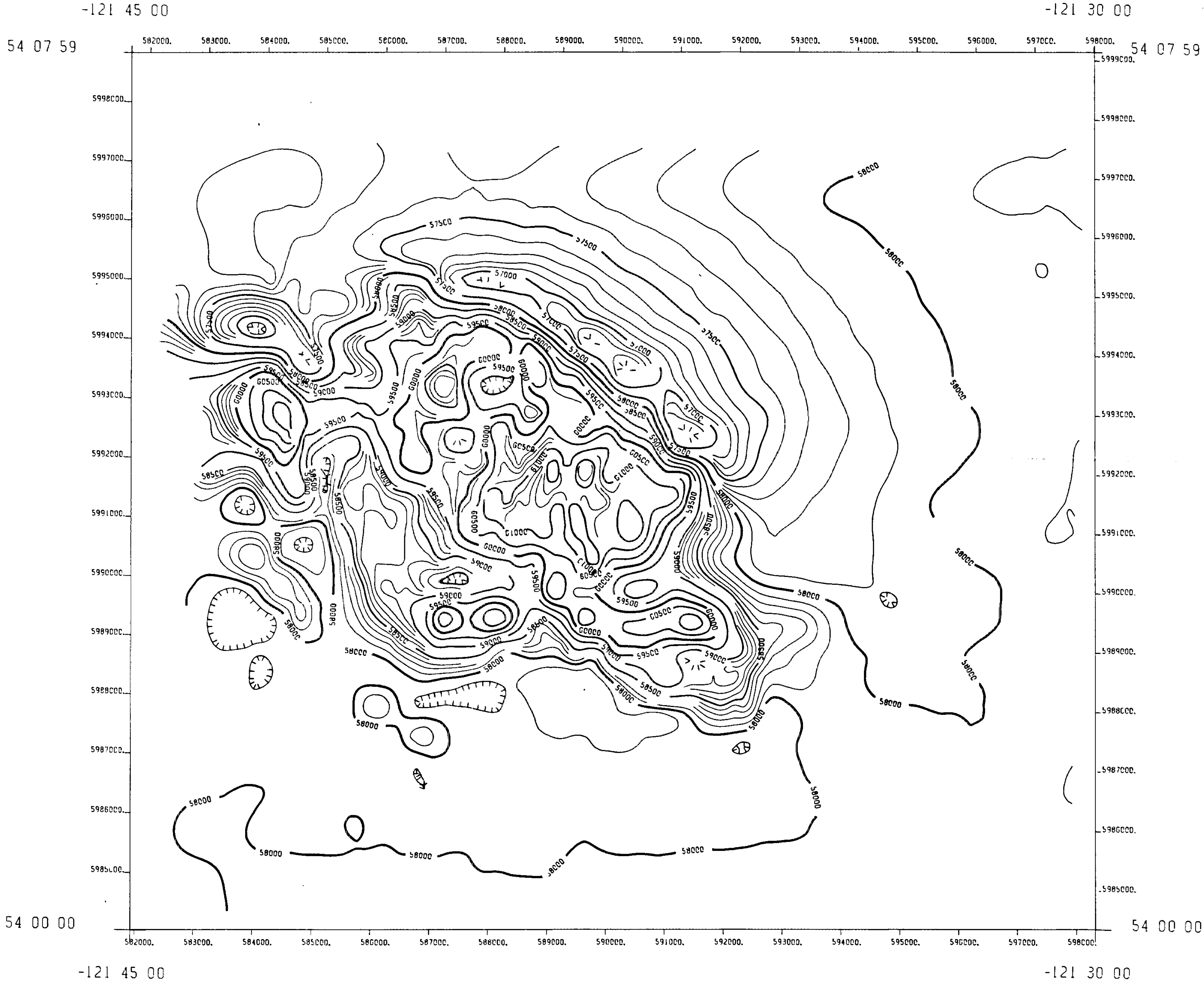
FIGURE 4
FLIGHT LINE LOCATION MAP

KM 1.5 1.0 0.5 0.0 -0.5

MILES 1.0 0.5 0.0 -0.5

Prince George
Profile Locations

SCALE 1 TO 50000



Commonwealth Geophysical

Explanation

2000 nT
500 nT
100 nT
Field Low

-0.5 0.0 0.5 1.0 1.5 KM

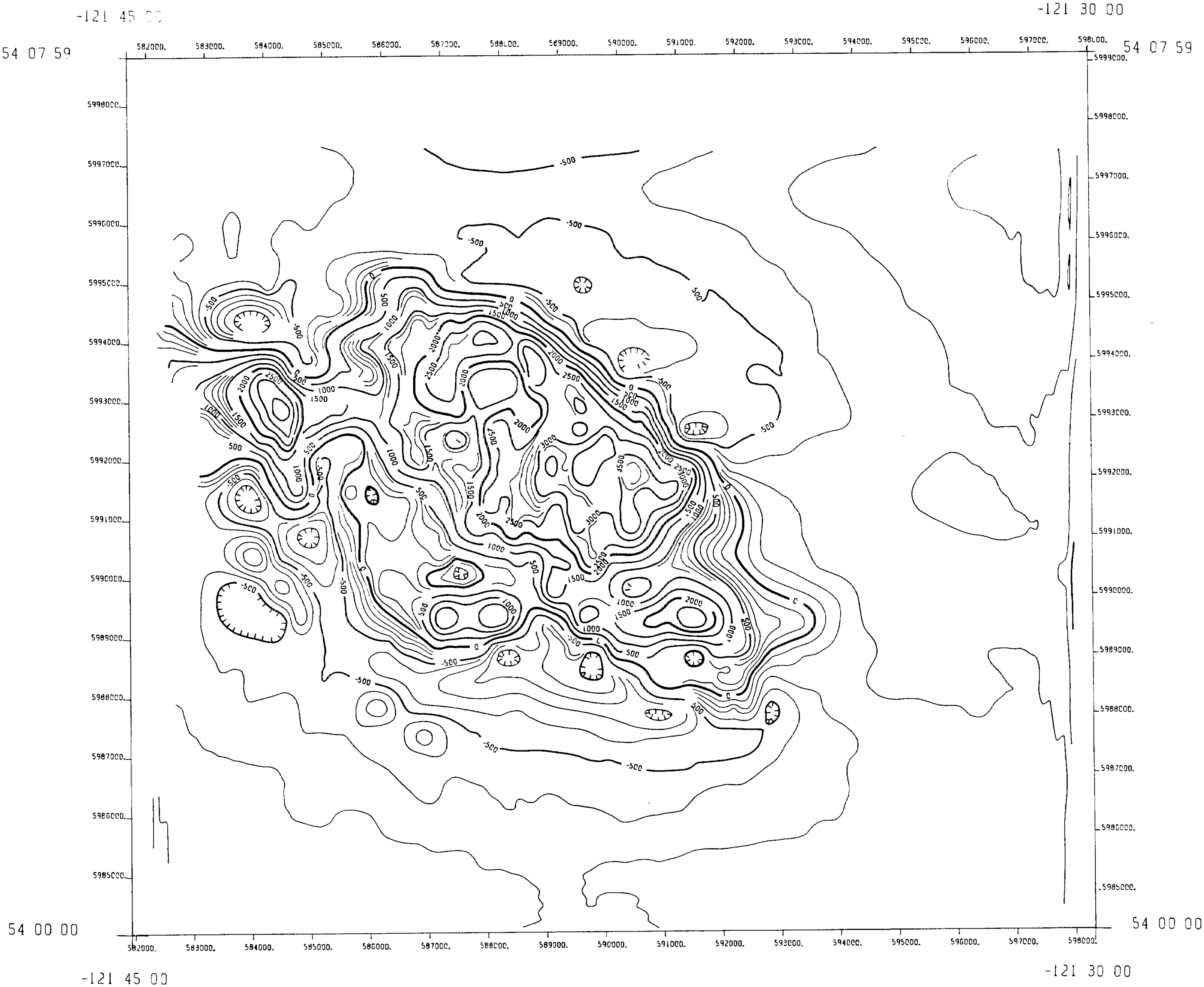
-0.5 0.0 0.5 1.0 MILES

SCALE 1 TO 50000
CONTOUR INT. 100.00

2GBT Resources Ltd., Total Field

FIGURE 5

TOTAL MAGNETIC FIELD - CONSTANT CONTOUR INTERVAL



Commonwealth Geophysical

Explanation

2000 nT
500 nT
100 nT
Field Low

-0.5 0.0 0.5 1.0 1.5 KM

-0.5 0.0 0.5 1.0 MILES

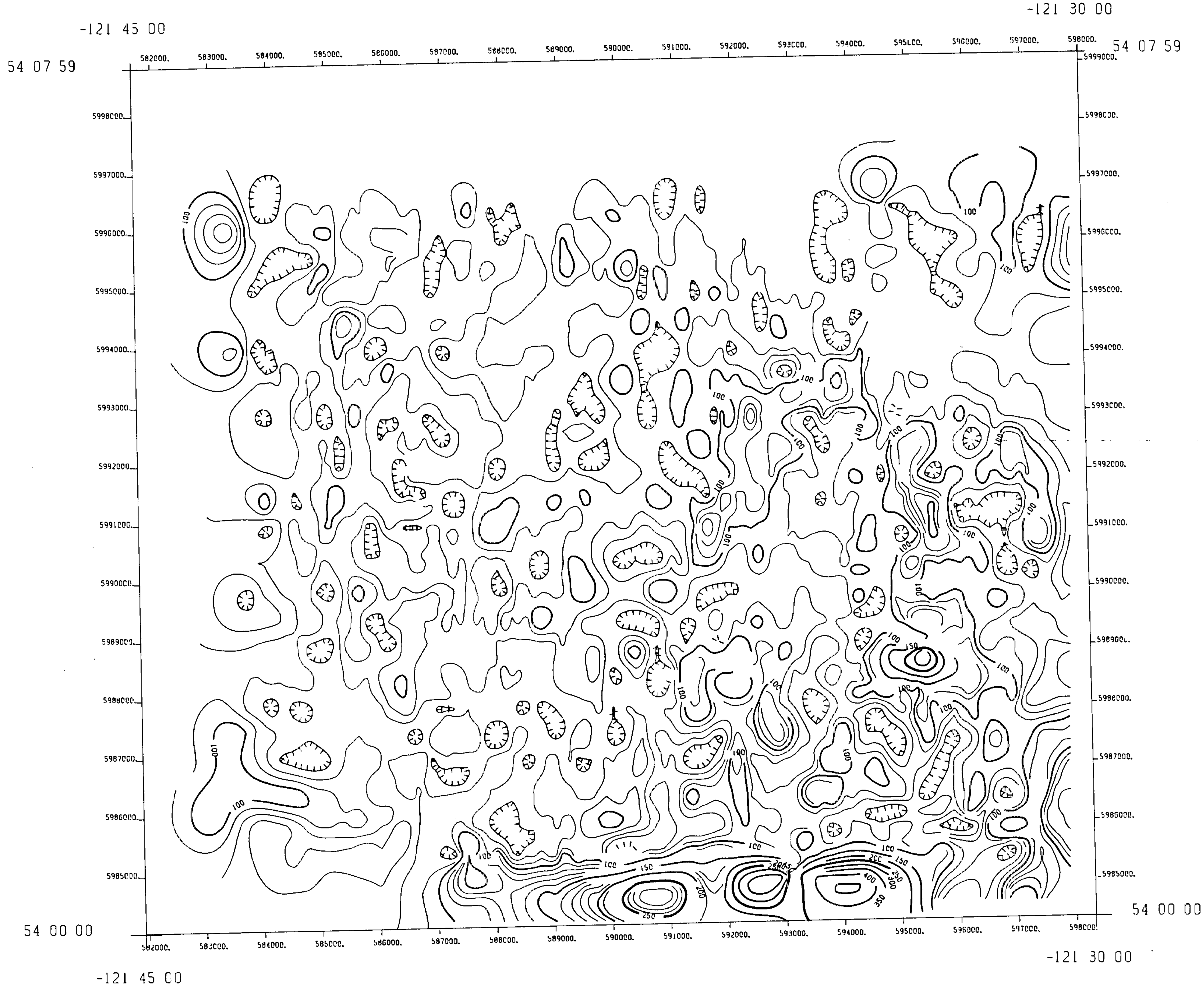
SCALE 1 TO 50000
CONTOUR INT. 100.00

26BT Resources Ltd., Total Field (RTP)

FIGURE 6

TOTAL MAGNETIC FIELD REDUCED TO THE POLE - CONSTANT CONTOUR INTERVAL, 100 nT

25,164



Commonwealth Geophysical

Explanation

250 m
50 m
10 m
Elevation Low

SOKISEIS Neves
5620 Crowchild Trail SW
Calgary, Alberta, Canada, T3E 5R8
PH(403)246-9190, FAX(403)242-9670

-0.5 0.0 0.5 1.0 1.5 KM

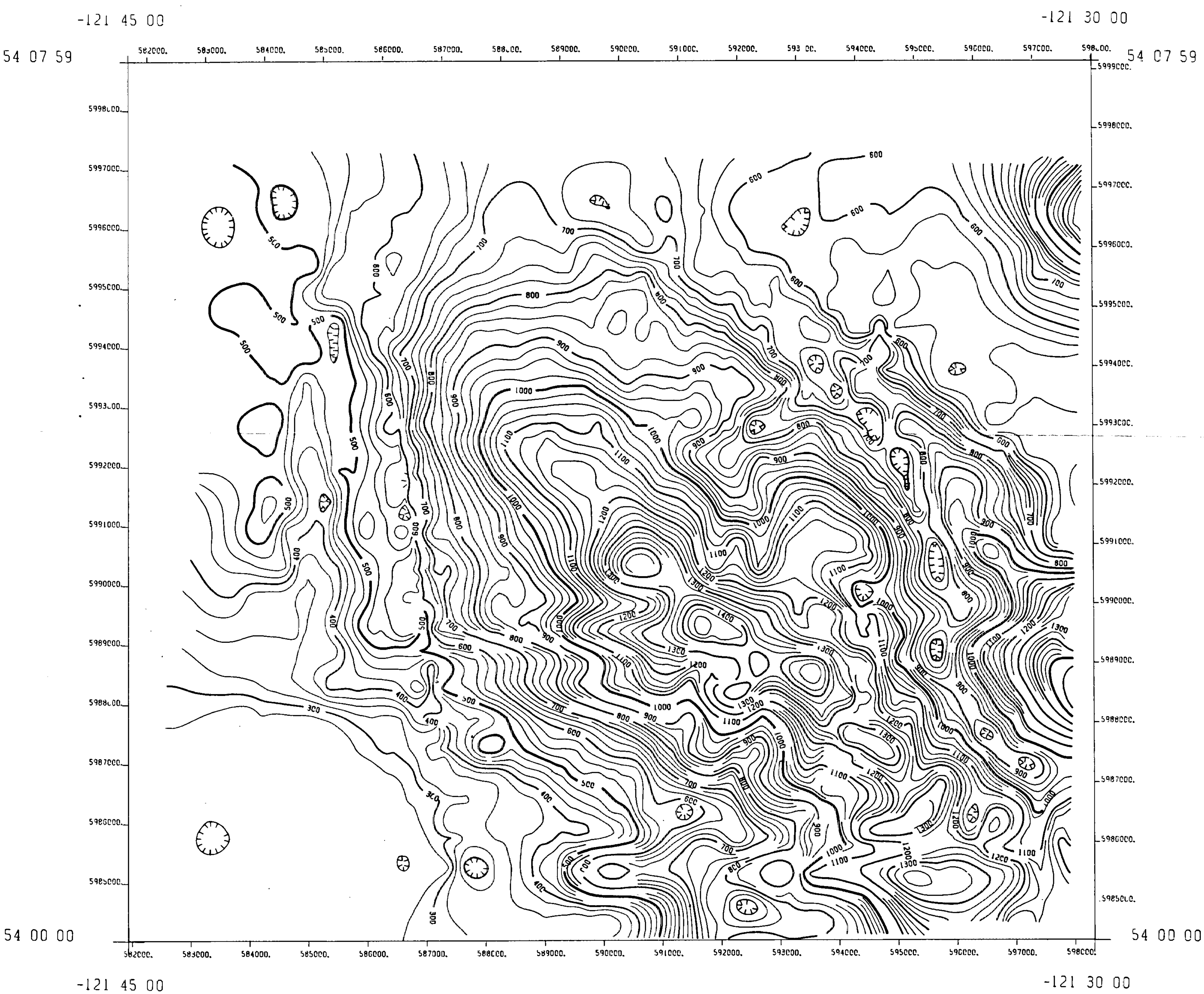
-0.5 0.0 0.5 1.0 MILES

SCALE 1 TO 50000
CONTOUR INT. 10.00

26BT Resources Ltd., Radar Altimeter

FIGURE 7

MAP OF RADAR ALTIMETER DATA - CONSTANT CONTOUR INTERVAL



Commonwealth Geophysical

Explanation
1000 m
100 m
25 m
Elevation Low

SONISEIS House
6620 Crowchild Trail SW
Calgary, Alberta, Canada T3E 5R8
PH(403)246-9190, FAX(403)242-9678

-0.5 0.0 0.5 1.0 1.5 KM
-0.5 0.0 0.5 1.0 MILES

SCALE 1 TO 50000
CONTOUR INT. 25.00

26BT Resources Ltd., Ground Elevation

FIGURE 8

MAP OF GROUND ELEVATION DATA - CONSTANT CONTOUR INTERVAL

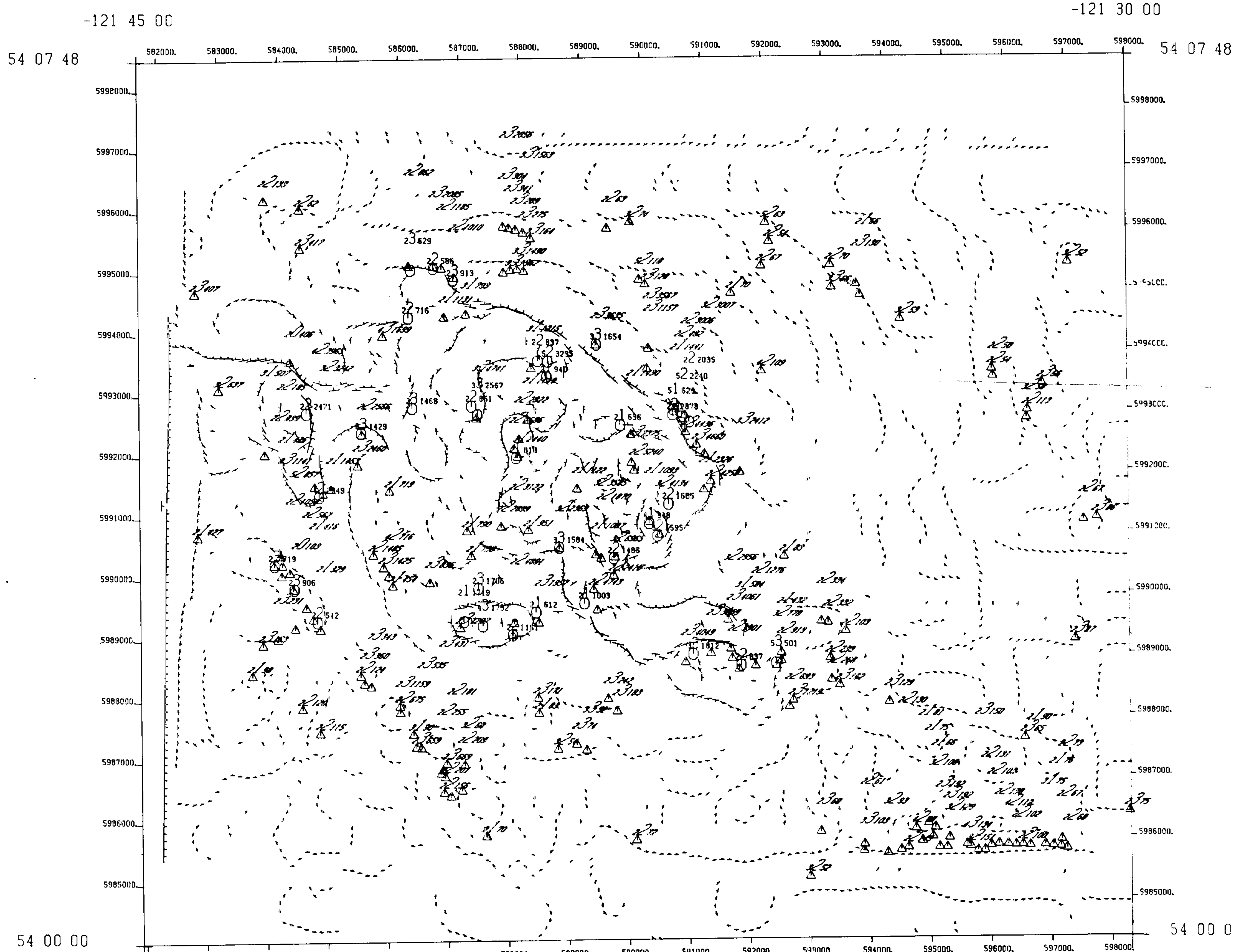


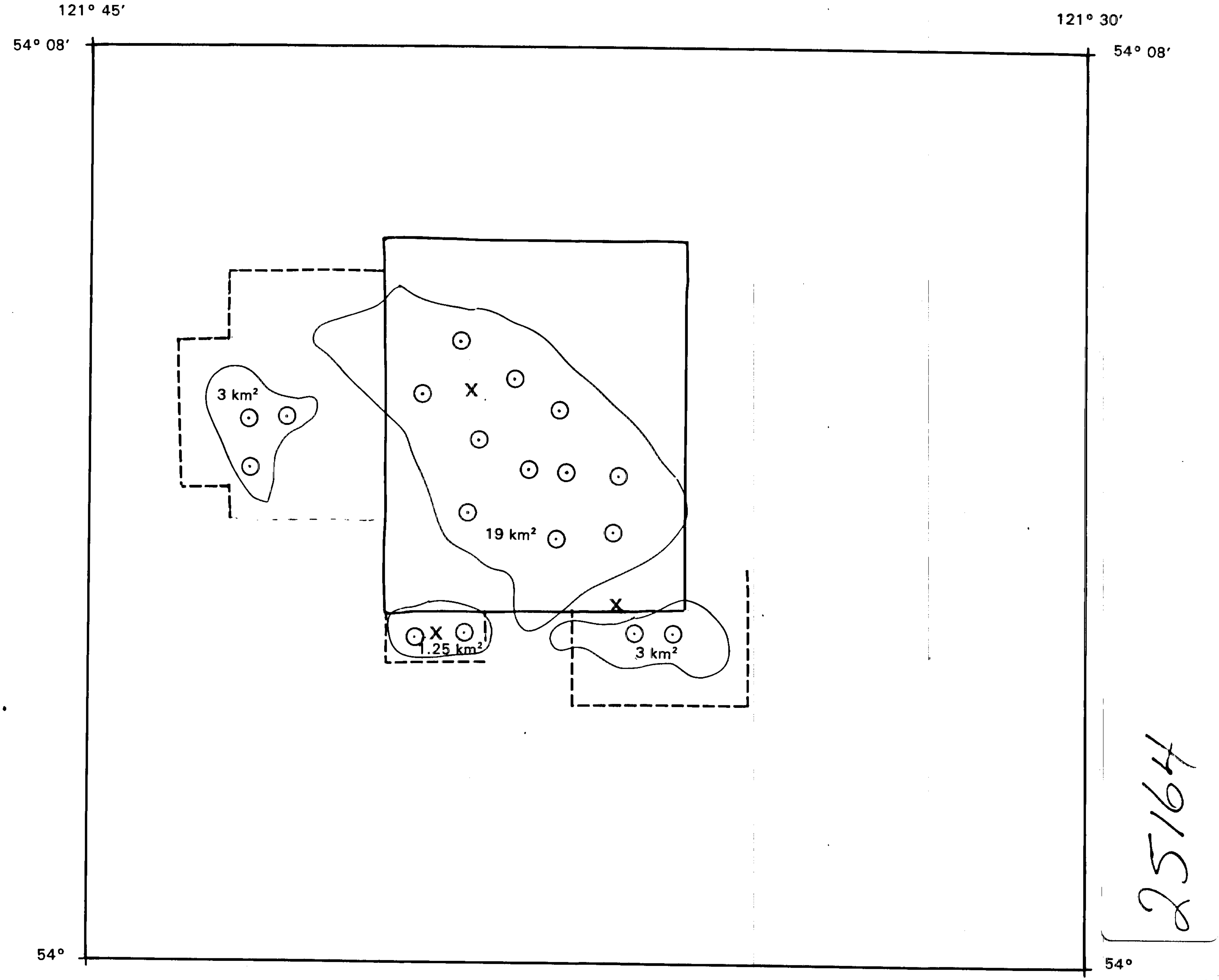
FIGURE 9
MAP OF SOURCE EDGES, AND DEPTHS FROM TWO-DIMENSIONAL
WERNER DECONVOLUTION (MAGDEP2D)

-0.5 0.0 0.5 1.0 1.5 KM

-0.5 0.0 0.5 1.0 MILES

SCALE 1 TO 50000

PRINCE GEORGE



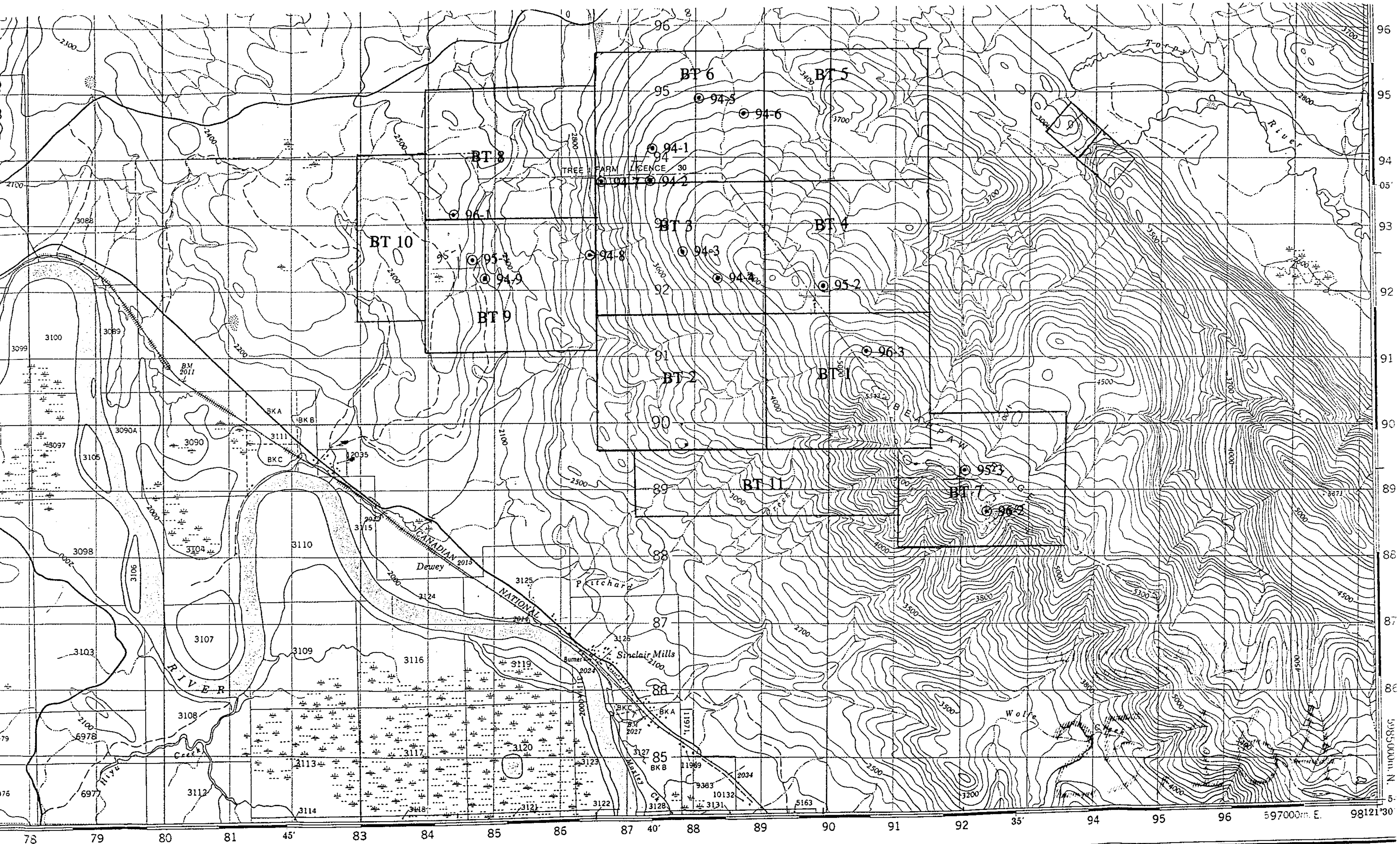
PRINCE GEORGE

INTERPRETATION OVERLAY

FIGURE 10

COMPILATION/INTERPRETATION OF RESULTS OF AEROMAGNETIC SURVEY

STAKED AREA
AREA TO BE STAKED
⊙ SHALLOW SAMPLE SITE (18)
X DEEP SAMPLE SITE (3)



SINCLAIR MILLS

CARIBOO LAND DISTRICT

Scale 1:50,000 Échelle

FIGURE 11
LOCATION OF HOLES DRILLED

Susceptibility
in emu * 10^3

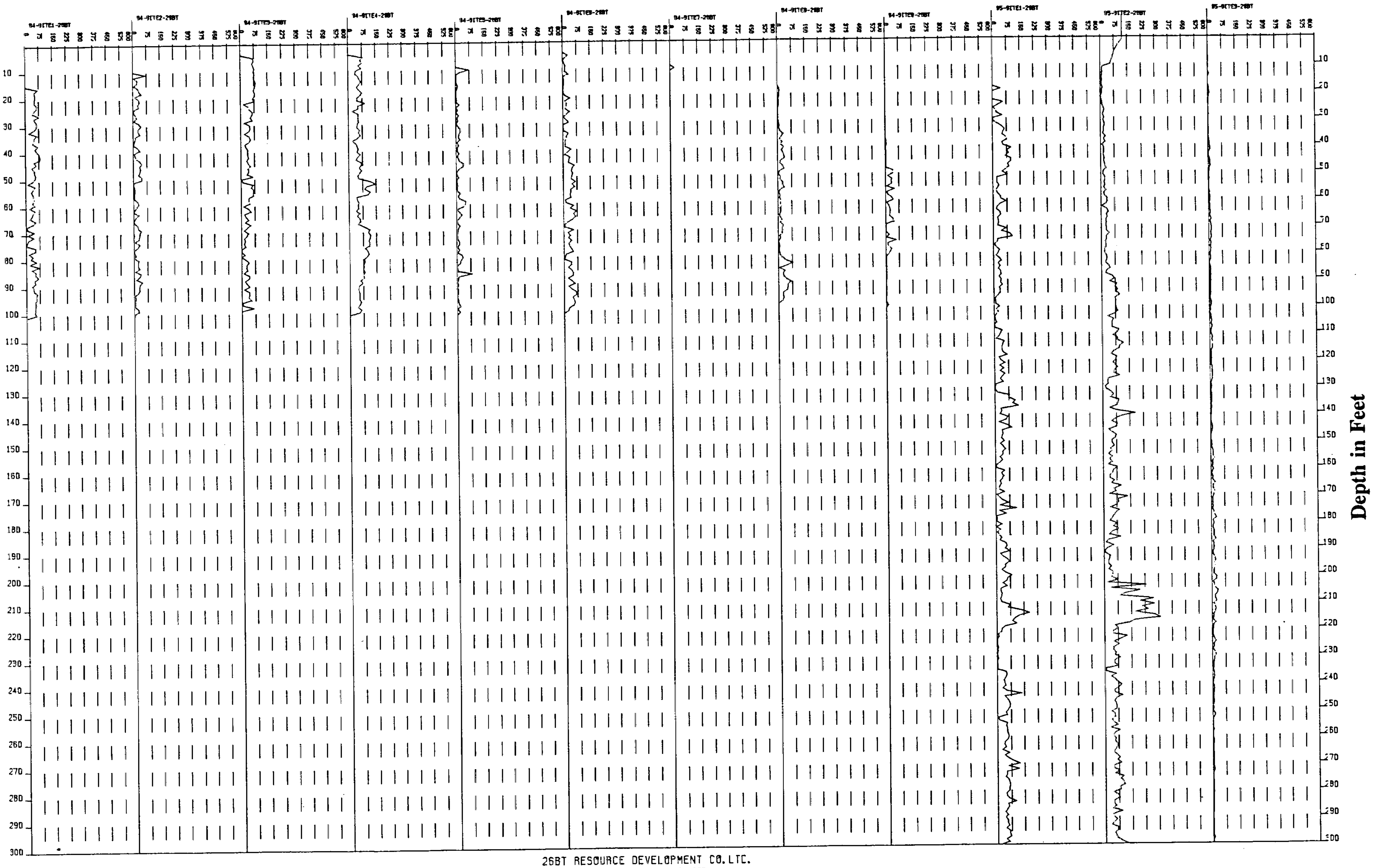
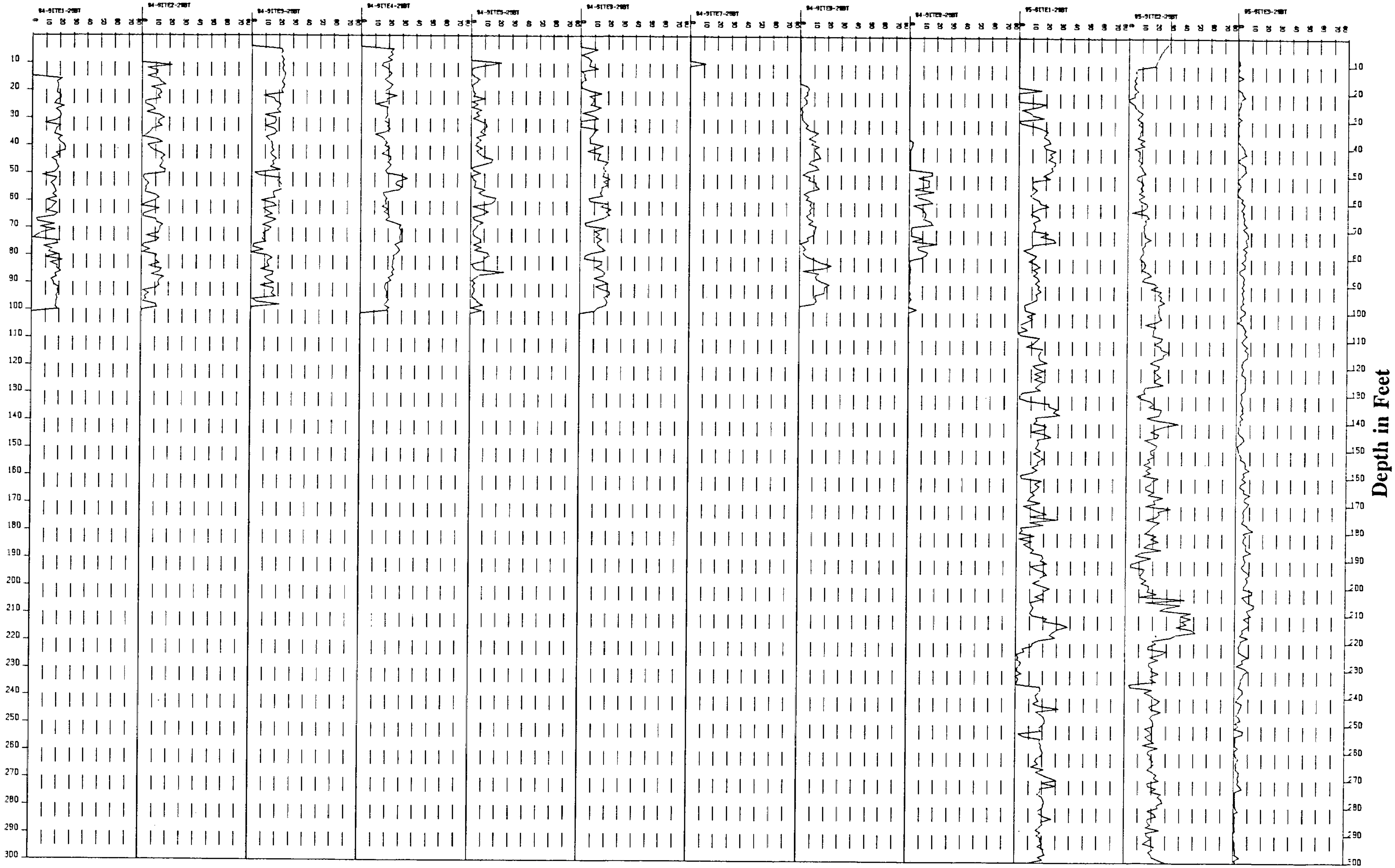


FIGURE 12
SUSCEPTIBILITY PLOT
Susceptibility in emu X 10^3 (top)
vs depth in feet for twelve drill
holes and two boulders.

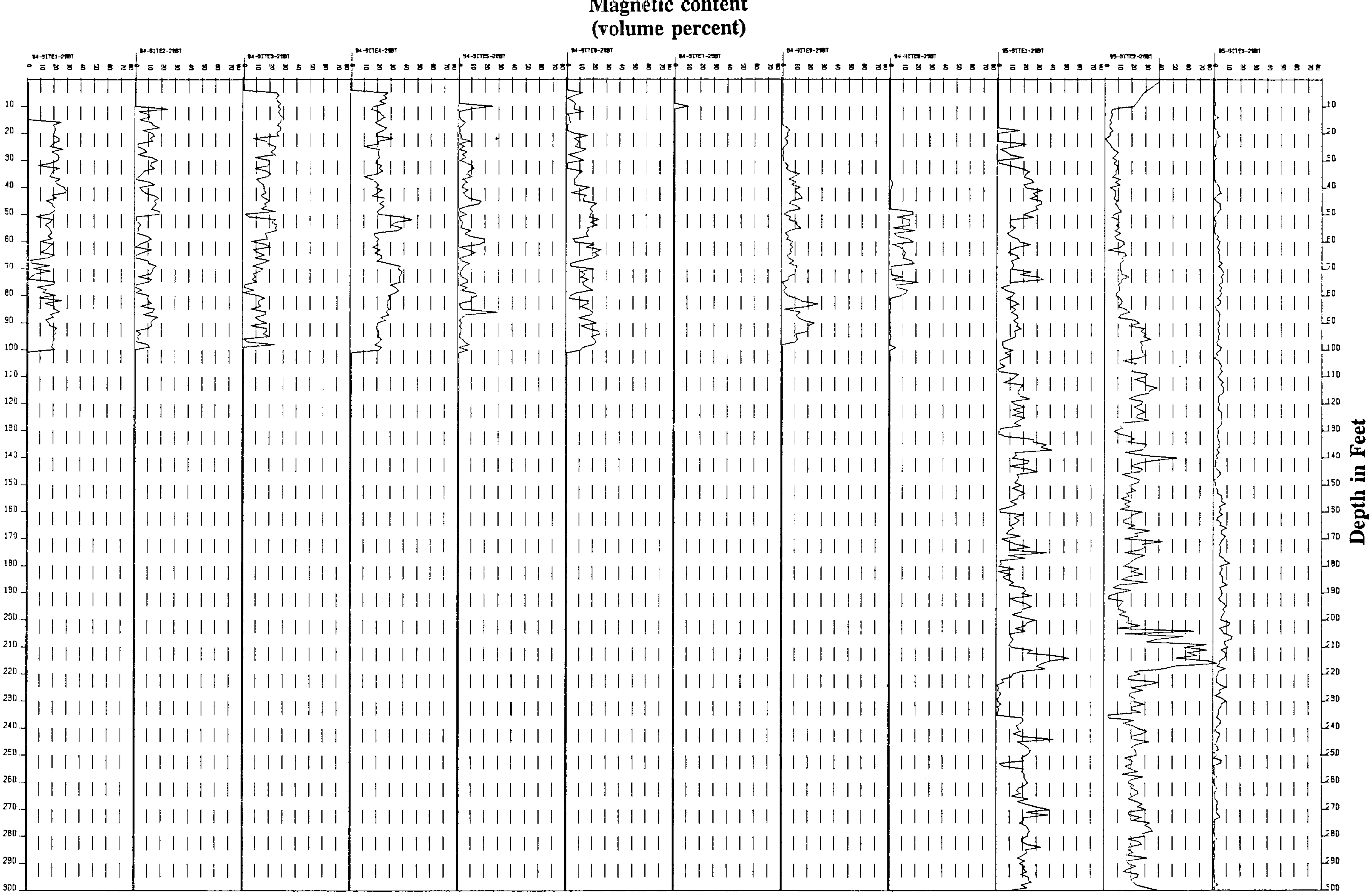
Magnetic content
(percent volume)



26BT RESOURCE DEVELOPMENT CO. LTC.

GAUCHER, N. QUEBEC

FIGURE 13
MAGNETITE CONTENT (VOLUME) GAUCHER, N. QUEBEC
Magnetic content in percent by volume (top)
vs depth in feet for twelve holes, as computed
from the relationship established in N. Quebec.



26BT RESOURCE DEVELOPMENT CO. LTC.

BATH, MINNESOTA

FIGURE 14
MAGNETITE CONTENT (VOLUME) BATH, MINNESOTA
Magnetite content is percent by volume (top) vs depth
in feet for twelve holes and two boulders calculated
from the relationship established in Minnesota.

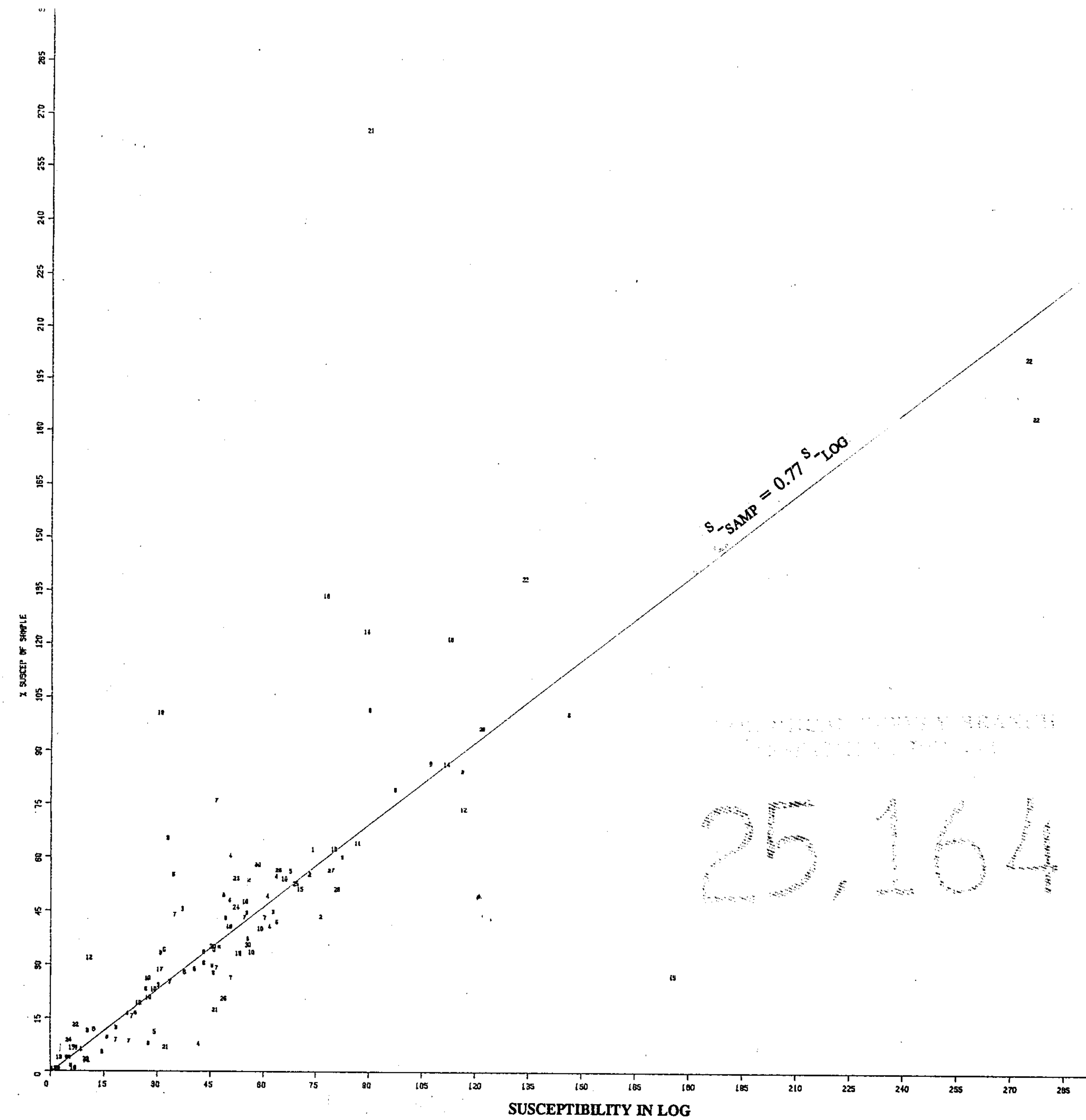


FIGURE 15
SAMPLE SUSCEPTIBILITY VS LOG SUSCEPTIBILITY
Plot of sample value (measured in lab) vs log
(measured in field) for susceptibility of core sample.

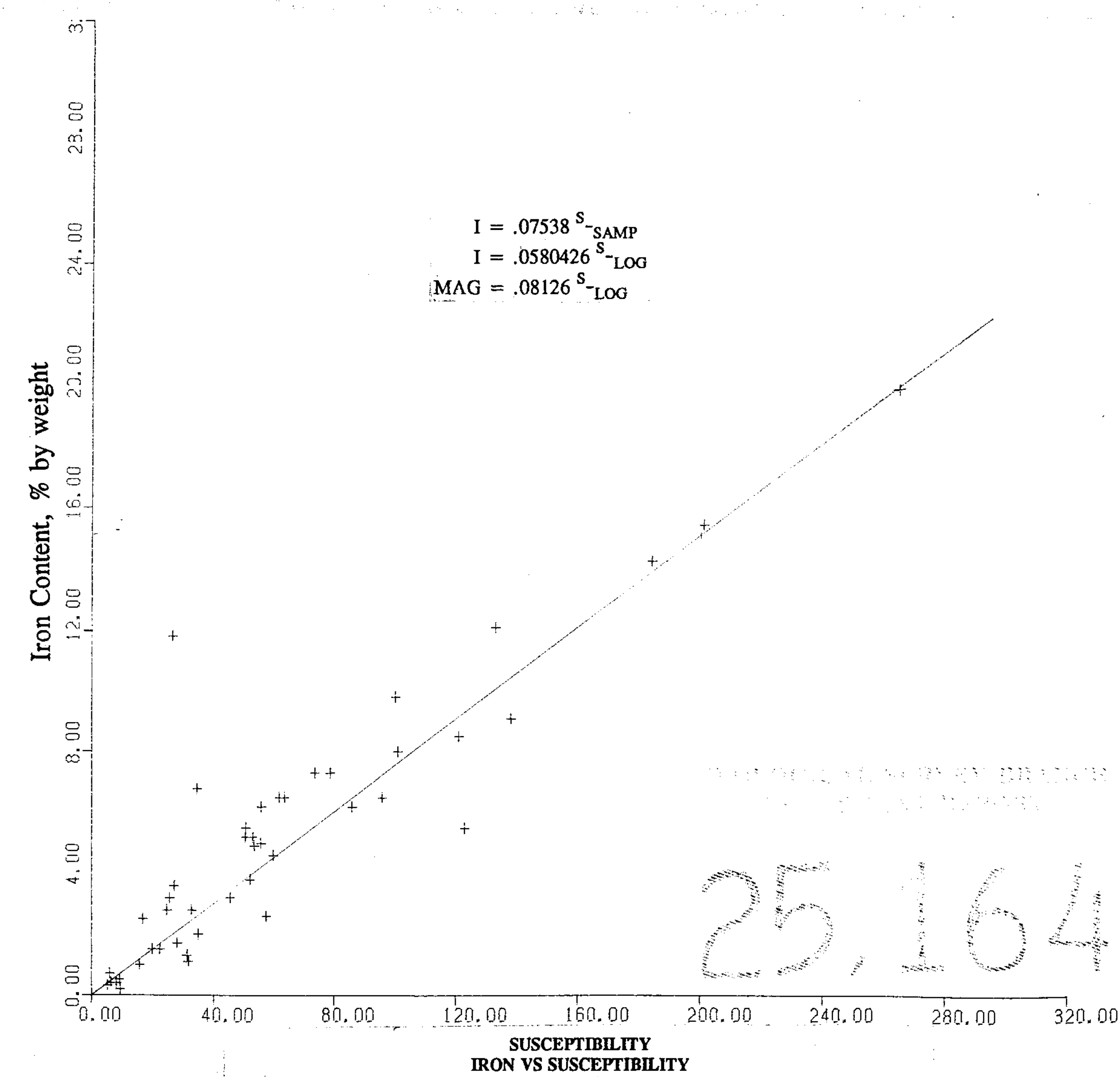
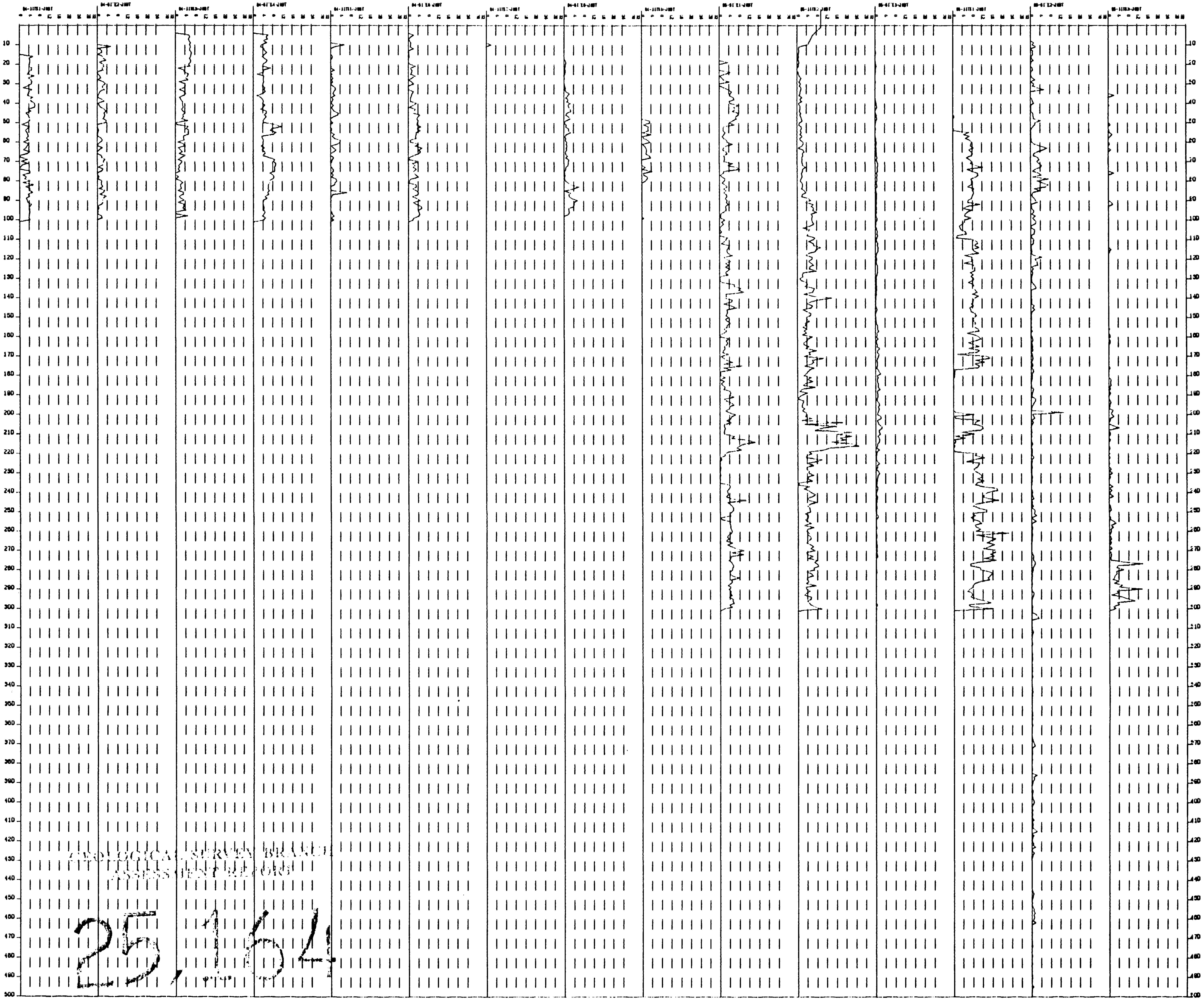


FIGURE 16
IRON CONTENT BY WEIGHT VS SAMPLE SUSCEPTIBILITY



2681 RESOURCE DEVELOPMENT CO. LTD.

FIGURE 17
MAGNETITE CONTENT ESTIMATED FROM SUSCEPTIBILITY
USING EQUATION DERIVED FROM CORE SAMPLE ANALYSIS

94 & 95

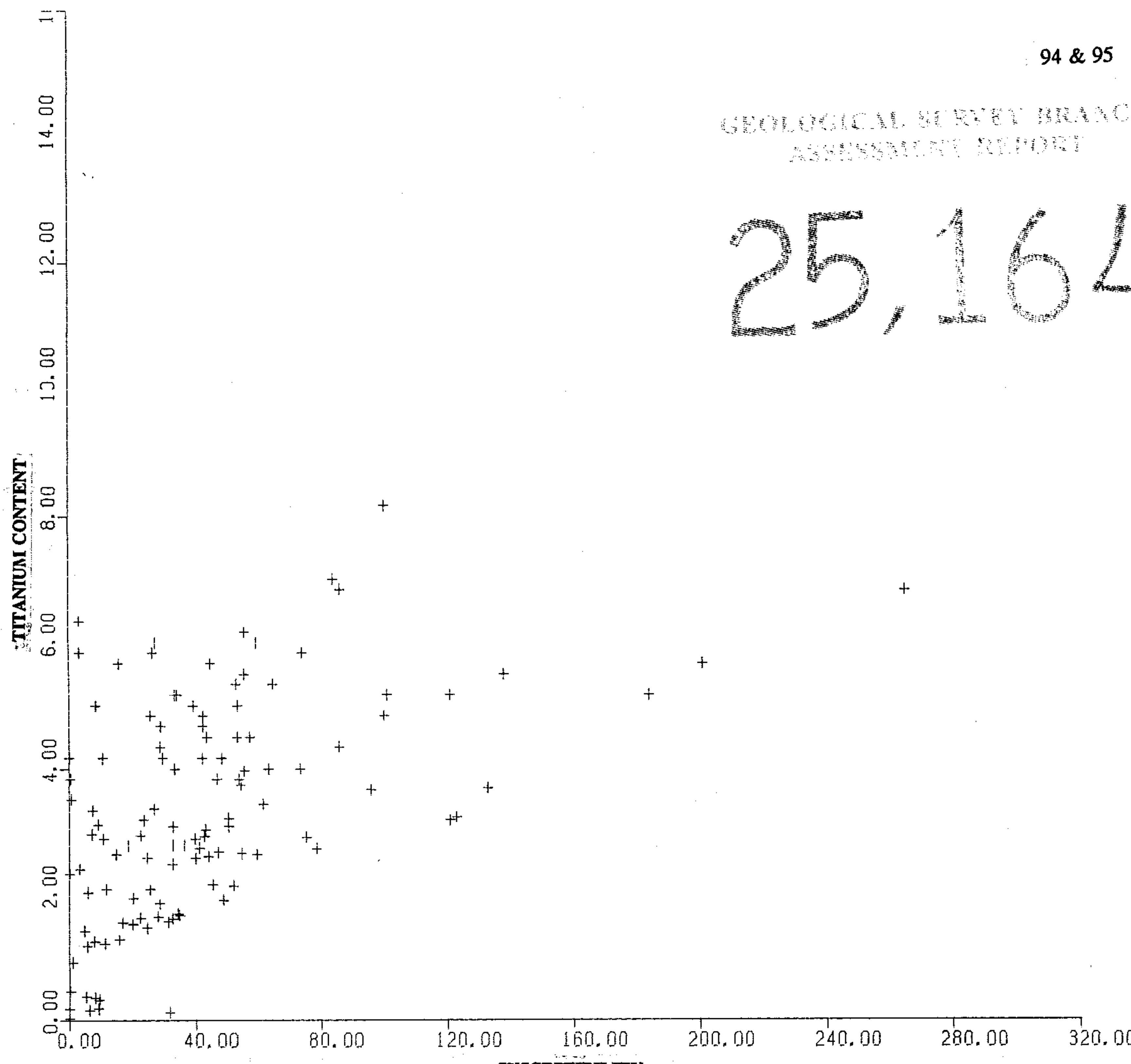


FIGURE 18
TITANIUM OXIDE CONTENT BY WEIGHT VS SAMPLE SUSCEPTIBILITY

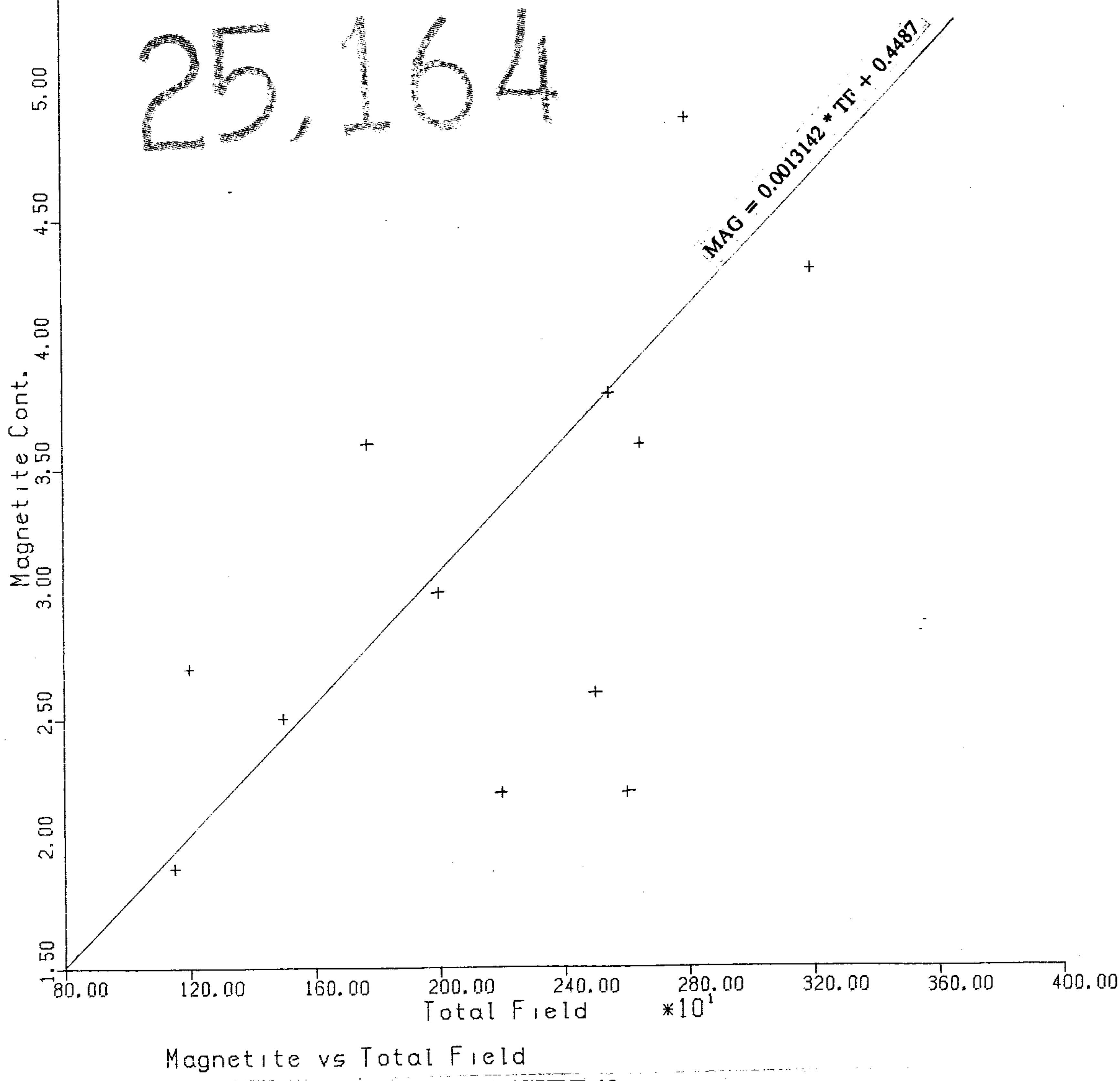


FIGURE 19

MAGNETITE CONTENT VS TOTAL FIELD FOR TWELVE HOLES. NOTE TWO POINTS LOCATED ON TOTAL FIELD AXIS.

Commonwealth Geophysical

Explanation
5.0 %
2.5 %

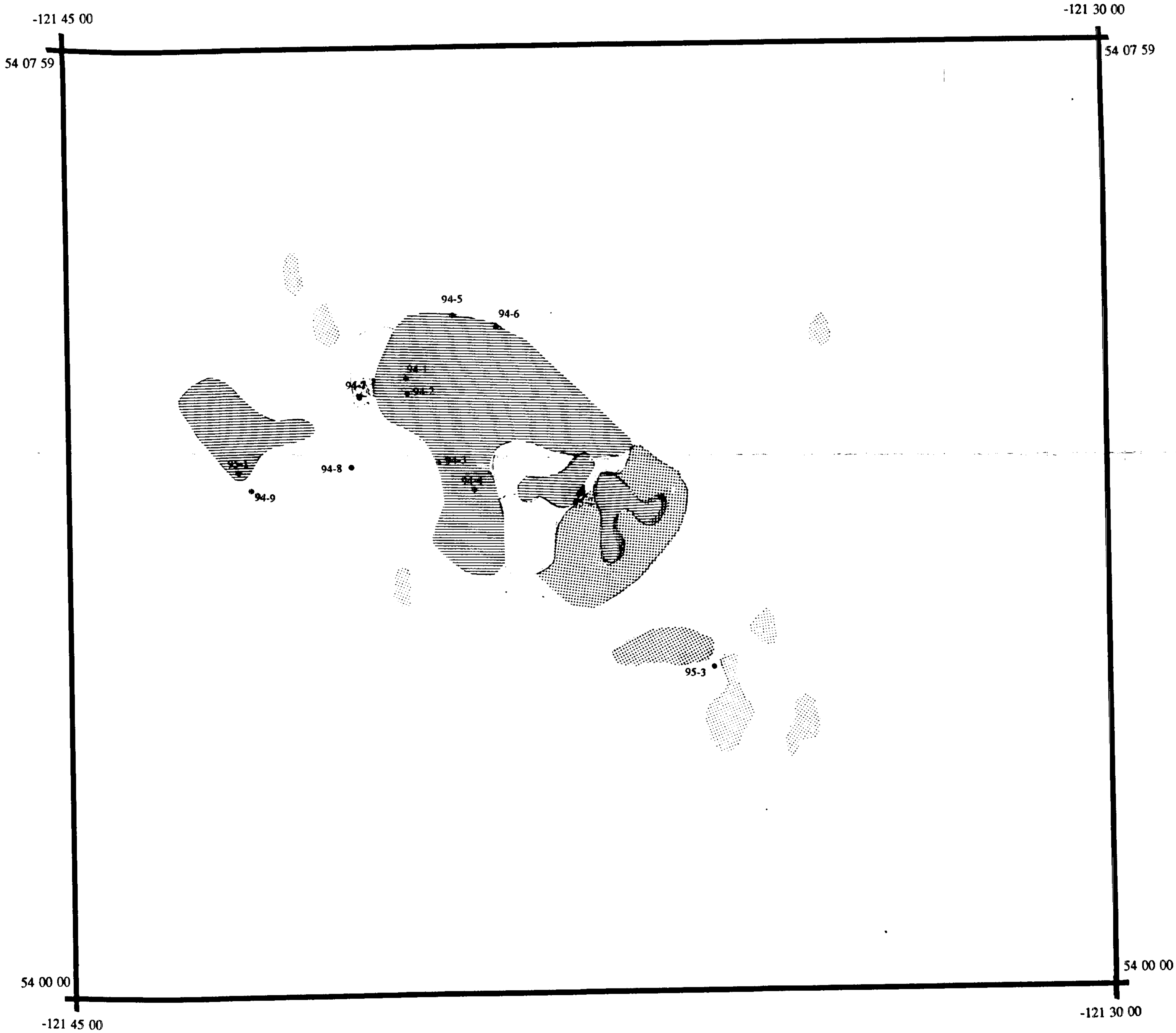
SONISEIS house
5620 Crowchild Trail SW
Calgary, Alberta, Canada, T3E 5R8
Ph(403)246-9190, FAX(403)242-9679

-0.5 0.0 0.5 1.0 1.5 KM
-0.5 0.0 0.5 1.0 MILES

SCALE 1 TO50000
CONTOUR INT. 0.50

26BT Resource Ltd., Magnetite

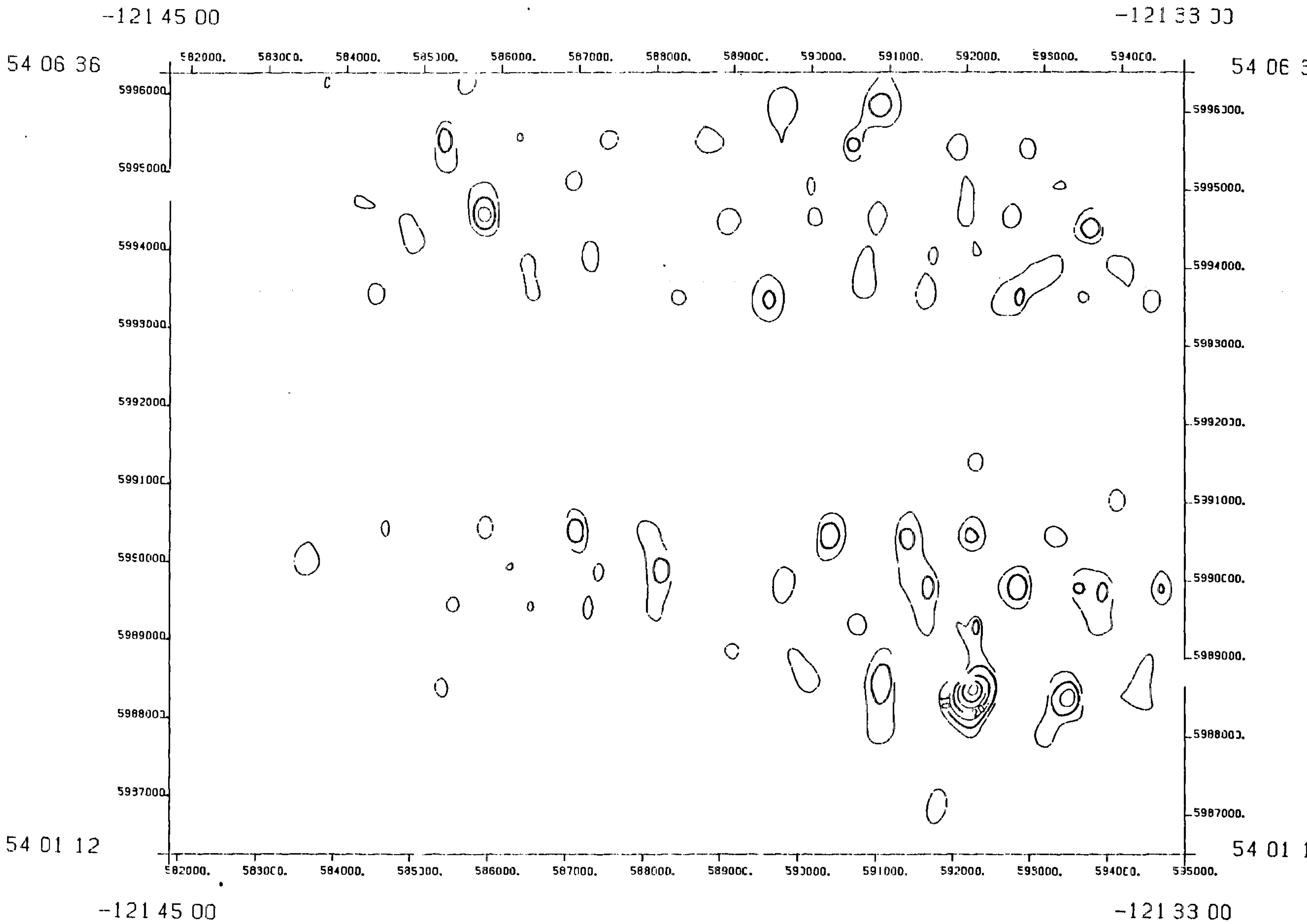
FIGURE 20
ESTIMATED AVERAGE MAGNETITE CONTENT
COMPUTED FROM THE MAGNETIC FIELD



0 - 25 m
25 - 50 m
50 - 250 m
E-M anomoly

SCALE 1:50,000

FIGURE 20A
DEPTH OF MAGNETITE FROM MAGDEP PROFILE INTERPRETATION AND HOLE INFORMATION. EM anomolies are also shown.



-0.5 0.0 0.5 1.0 1.5 KM

-0.5 0.0 0.5 1.0 MILES

GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORT

25,164

SCALE : 1:50000
CONTOUR INT. 5.00

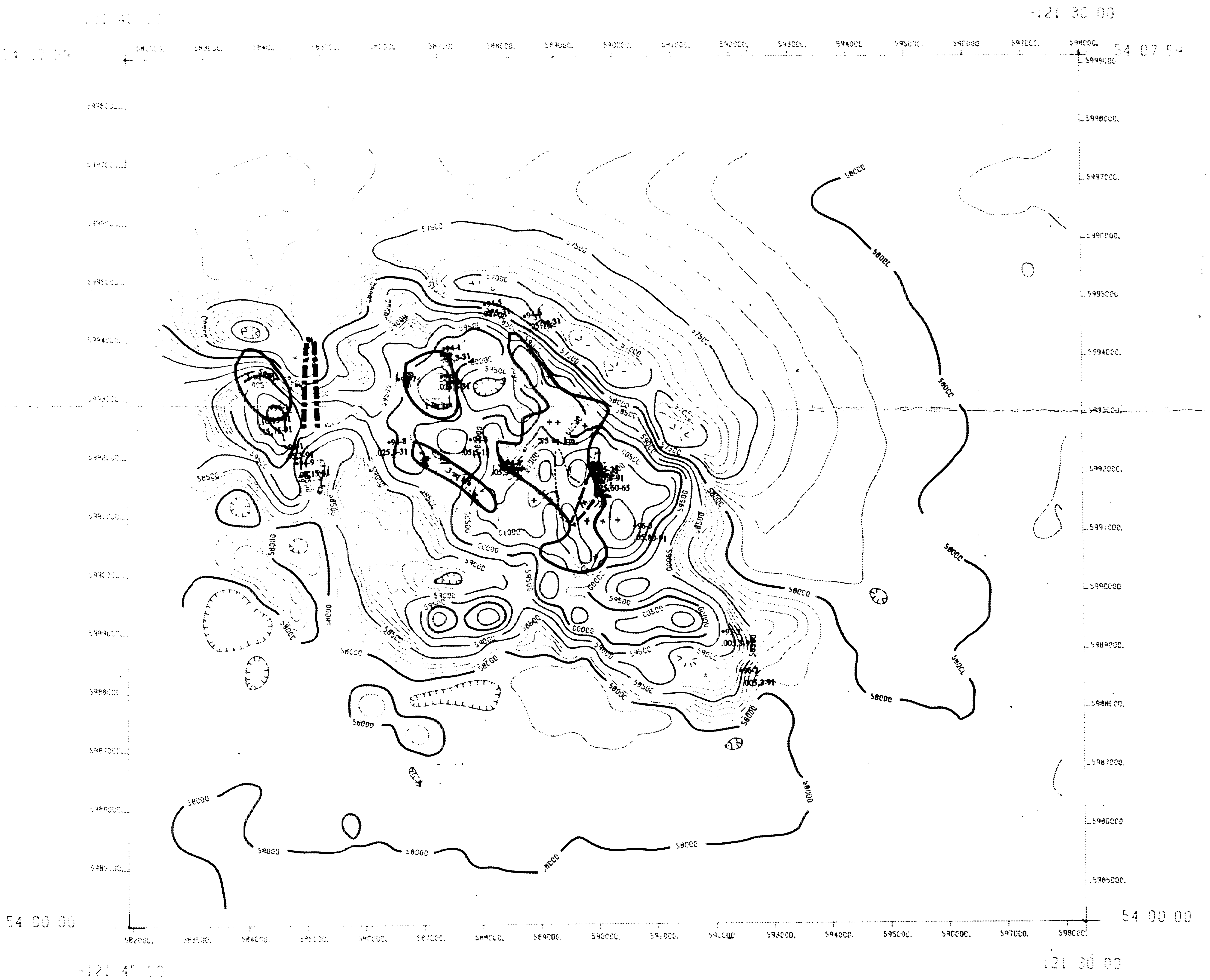
26BT Resources Ltd., VLF-EM

FIGURE 20B
VLF - EM TOTAL FIELD IN PERCENT

SCALE 1 TO50000
CONTOUR INT. 0.50

20BT Resources Ltd., Magnetite Cont. in %

FIGURE 20C
MAGNETITE CONTENT FROM
(TOTAL MAGNETIC FIELD REDUCED TO THE POLE)



Commonwealth Geophysical

Explanation
2000 nT
500 nT
100 nT
Field Low

SOMISCIS house
6620 Crowchild Trail SW
Calgary, Alberta, Canada, T3E 5R8
Ph:(403)246-9190, FAX:(403)242-9670

-0.5 0.0 0.5 1.0 1.5 KM

-0.5 0.0 0.5 1.0 MILES

GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORT

2661 Resources Ltd.,

25,164

+ source on surface
sus = .5 (model)
sus = .3 (model)
sus > .2 (MAGDEP)
EM anomaly
x, y-z sus in emu for depth range in m

NOTE: Susceptibilities are plotted only for sources within 100 m of the surface and when greater than .199.

FIGURE 21
PROBALBE ORE AREAS

SCALE 1 TO 50000
CONTOUR INT. 100.00