

**REPORT**  
**OF**  
**ASSESSMENT WORK PERFORMED**  
(Diamond Drilling)

**Houston North Burgess**  
**Graphite Property**

Work Performed on Claim: SO 840570, to be distributed.



Prepared For: Graphite Mountain Inc.

31C09NW2003 2.22054

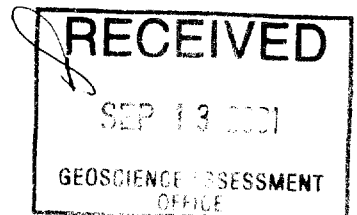
BURGESS

010

By: MDX GeoServices  
P.O. Box 431  
Peterborough, Ontario  
K9J 6Z3

September 10, 2001

**2.22054**



# REPORT OF ASSESSMENT WORK PERFORMED (Diamond Drilling)

## 1.0 INTRODUCTION

### 1.1 General

This report presents a description of the work completed to date on a recently completed diamond drilling program conducted to test a series of mineralized zones in the west-central part of the Township of North & South Burgess, approximately 9 km northeast of Westport, Ontario (Figure 1). This report is intended to be a report on Diamond Drilling Work Performed and is *not* intended to be a geological report.

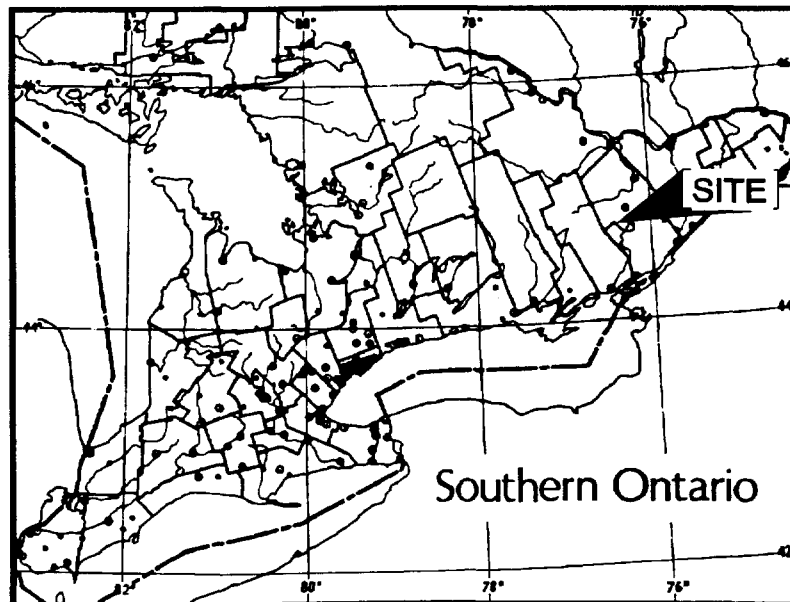


Figure 1: General location

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■ MDX GeoServices ■

P.O. Box 431, Peterborough  
Ontario K9J 6Z3

internet: oakridge\_env@kawartha.com

(705) 745-1181 tel  
(705) 745-4163 fax

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The property is now referred to as the Houston North Burgess Graphite Property *formerly known as the Timmins Graphite Mine*, consisting of a 39 (more or less) claim-unit property which contains several broad zones of highly graphitic Grenville metasediments intruded by granite and granitic gneiss. Several significant graphite deposits occur within the property. Some historical development and mining of graphite has been reported, the most recent being bulk mill testing in 1951. A minor amount of surficial work and possible diamond drilling was previously conducted in the 1980's by others in the project area. The current diamond drilling program was undertaken as a follow-up to physical work conducted in 1999 and 2000.

The drilling results outlined in this report represent *two of thirteen* holes drilled during this program. A previous assessment report (January 2001) presented the results of the first three drill holes. Logging of the remaining drill cores will be completed in the near future, at which time another report will be submitted.

## **1.2 Property Description and Location**

Located approximately 9 km northeast of Westport, Ontario, the former Timmins Graphite Mine property consists of approximately 33 unpatented mining claims in situated along the western edge of the Township of North & South Burgess, County of Lanark - Leeds .

A portion of the claim group (where the current work was preformed) is illustrated by Figure 2. All of the claims are within lots which are registered as "Patented, Surface Rights Only". This implies that the land is privately held for surface uses, but the mineral and mining rights have been severed and are available for staking.

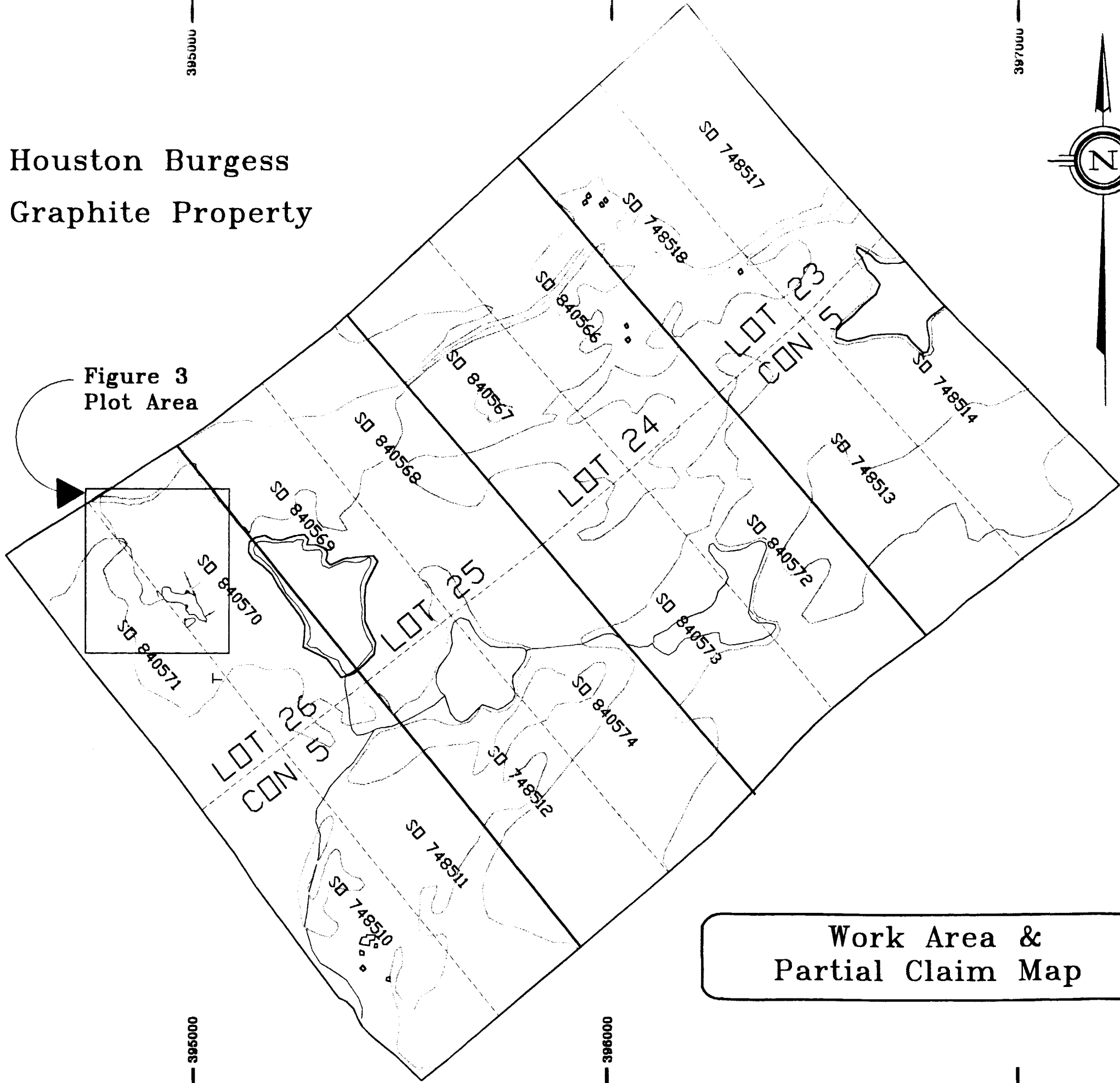
The claims area can be located on National Topographic Map System maps NTS 31 C/9 at a scale of 1:50,000 and on the provincial OBM series sheets 10 18 3900 49550, 3950 49550, 3900 49500 and 3950 49500.

# Houston Burgess Graphite Property

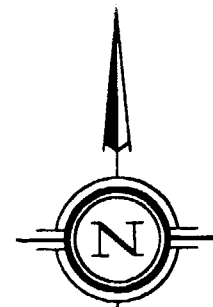
4956000

4954000

Figure 3  
Plot Area



Work Area &  
Partial Claim Map



General Notes

Field acquisition done during January, 2001.  
by Geomatics Environmental Ltd. staff.  
Method used is based on ITRF  
co-ordinates, NAD 83 Canada Datum.  
Waypoint data gathered using mapping  
grade differential GPS system - utilizing  
Navigation base at Cardinal, Ont.  
Expected accuracy of the DGPS system  
is < 2 metres (+/-) nominal.  
Data files digitized from Provincial  
GIS Sheet Series.

No.	Revision/Issue	Date

Prepared by and Address

**MXI Geoservices**  
A Division of Geomatics Environmental Ltd.  
Suite 203, 200 Armour Road  
P.O. Box 481  
Peterborough, Ontario  
Canada K7J 8Z3

Project Name and Address

**Graphite Mountain Inc.**  
CLAIM LOCATIONS ON  
LOTS 20, 24, 25, 26  
CONCESSION 6  
TOWNSHIP OF  
NORTH AND SOUTH HUNGREN  
COUNTY OF LANARK - EASTERN

Project	01-619	Sheet	
Date	September 2001	Figure	Figure 2
Scale	1:10,000		

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## **2.0 REGIONAL AND PROPERTY GEOLOGY**

### **2.1 Physiography and Overburden**

For the most part, the former Timmins Graphite Mine Property claims are typical of Southern Ontario's Precambrian Shield terrain with small areas being cultivated (primarily on carbonate bearing bedrock) and the remaining forest covered. In general, the claim group area has poor soil development with portions supporting minor agriculture... largely pasture land containing numerous rocky ridges.

In the work area, average relief is generally less than 3 metres, and locally reaches about 10 metres. Overburden, largely glacial debris and outwash - largely oxidized fine sand and silty fine sand, is not particularly thick, and appears to average between 1-2 metres depth. A few small ponds and/or small wetlands commonly occupy areas between the many rocky ridges in the forested areas.

No structures or other improvements were observed in the work area.

### **2.2 Bedrock Geology**

The former Timmins Graphite Mine property claims generally contain three principal rock types. These are:

1. Grenville marbles;
2. Intercalated Rusty and Siliceous Paragneisses; and
3. Granitic sills and other small intrusive bodies.

The metasedimentary units appear to overlie and have been intruded by granites and granitic gneisses. Minor mafic and intermediate dikes are found locally within the region, although these make up a very small proportion of the bedrock exposed. A coarse amphibolite unit was encountered by one of the drill holes presented in this report.

In general terms, the claim group contains very coarsely crystalline Grenville marbles which have been intruded by granitic gneiss and remobilized granitic basement rocks. The marble units are considered to be thin sequences (in comparison to marbles exposed to the west) which were at one time carbonate shelf sediments. These are likely to have been rich in organics and are now very graphitic. More than 50% of the North Burgess region is underlain by granitic gneisses

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which have undergone considerable upwelling. These rocks (and the overlying marbles) represent the lower portions of the stratigraphic column in this area and have endured very deep burial. This has resulted in upper amphibolite grade (and perhaps higher) metamorphic effects.

The rusty (i.e., sulphide rich) paragneisses apparently occur in variable width zones within the marbles and are thought to represent more siliceous sediments. These generally do have a carbonate component and were likely formed in an environment of higher energy. These may have a minor volcanic component or may simply be muddy, near shore deposits. Often, the rusty paragneisses contain significant graphite content, commonly exceeding 5% (by weight) graphitic carbon.

### **3.0 DESCRIPTION OF WORK COMPLETED**

#### **3.1 General**

The current diamond drilling program commenced with preparatory field work in late November, followed by mobilization of the drill rig to the site in early December of 2000. Drilling services were provided by Ron Kor Diamond Drilling Ltd. of Copper Cliff, Ontario.

The intent of the current drilling program was to explore a series of folded graphite schist zones previously revealed by stripping and trenching during 1999 and 2000. Drill hole locations were laid out in the field based on 15 m hole spacing on a grid pattern. Since earlier prospecting had revealed the trend of the mineralization to be complexly folded, it was decided that a closely spaced pattern of vertical holes would provide the best subsurface information at this early stage of exploration.

A total of thirteen holes were drilled between December 1, 2000 and December 17, 2000. This report covers the results of only two of these holes referred to as "DDH-NB-00-04 & -05". The remaining holes are in the process of being logged and will be described in a future report. Figure 3 illustrates the locations of the two subject diamond drill holes reported upon herein with respect to the various stripped and trenched areas (previously reported). The relative locations of the three previously reported drill holes are also shown. All of the drilling was conducted in claim SO 840570. While intervals for sampling and assaying have been marked out on the core and shown on the logs, the core has not yet been split and assaying has not been completed.

The author regularly visited the site during the drilling program to monitor the drilling progress. The hole locations were surveyed by mapping grade differential GPS, providing a field accuracy

of < 2 m.

### 3.2 Drilling Results

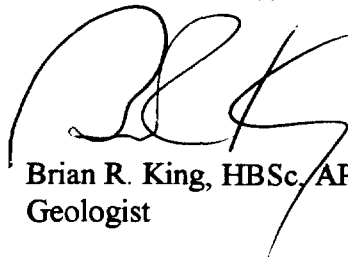
Briefly, the typical section revealed in the two holes consisted of the following sequence:

- 1) Epidotized Biotite Gneiss (metasediment) - fine to medium crystalline gneiss;
- 2) Marble - coarse, crystalline marble with trace disseminated flake graphite;
- 3) Graphite Schist - coarse flake graphite schist, 5 - 15 % est C (g) content;
- 4) Biotite Gneiss (metasediment) - possible arkose type sediment with potassic feldspar alteration
- 5) Amphibolite - coarse crystalline, annealed, mafic rock... possible mafic intrusive or possible skarn (evidence of marble intercalations and/or replacement texture)

Figure 4 illustrates an East-West cross section through the two drill holes. Drill core logs for both drill holes are appended.

Respectfully submitted,  
September 10, 2001

MDX GeoServices



Brian R. King, HBSc, APGO, FGAC.  
Geologist

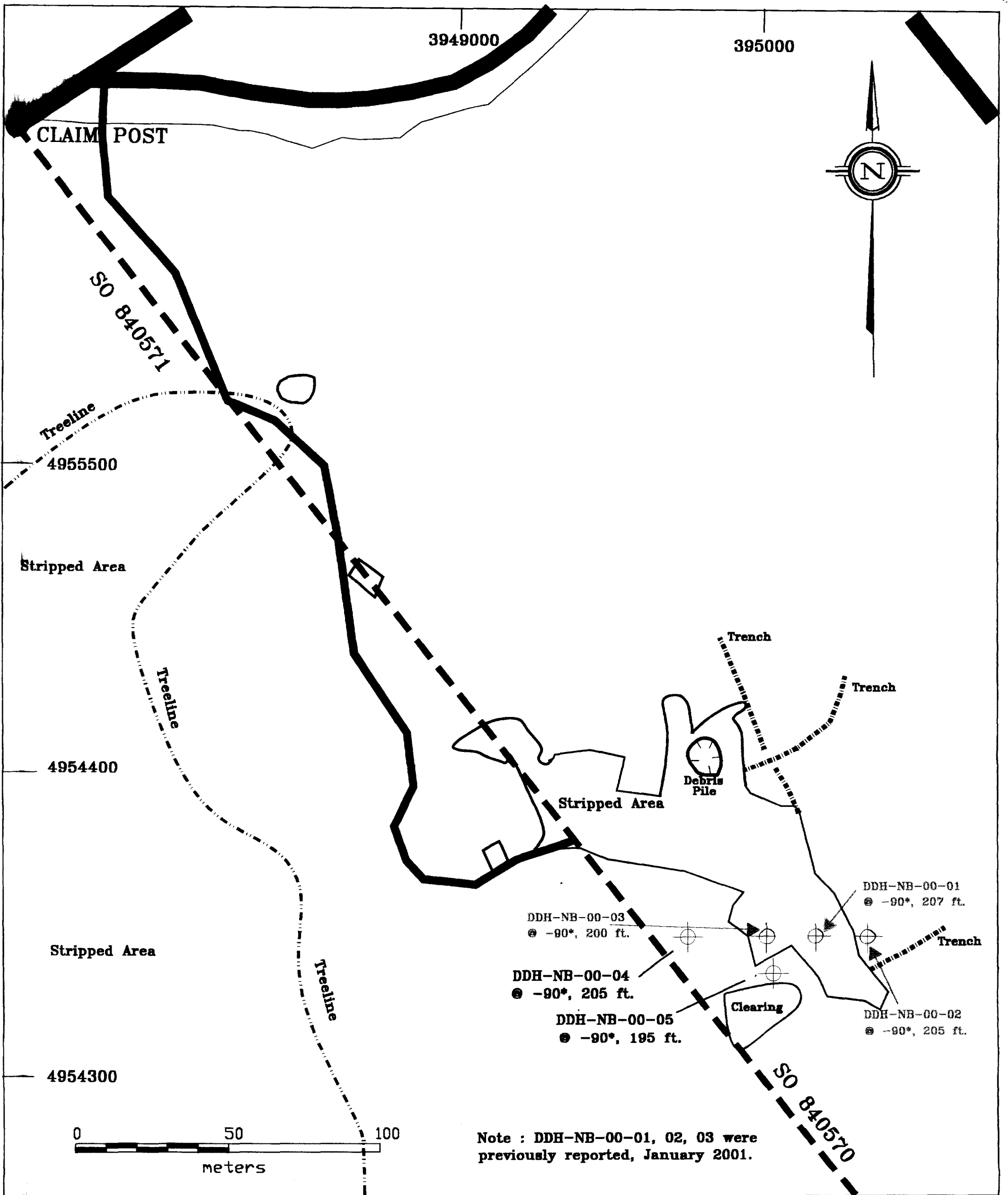


■ MDX GeoServices ■

P.O. Box 431, Peterborough  
Ontario K9J 6Z3

internet: oakridge\_env@kawartha.com

(705) 745-1181 tel  
(705) 745-4163 fax



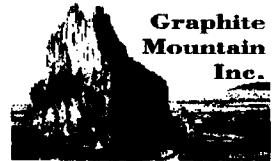
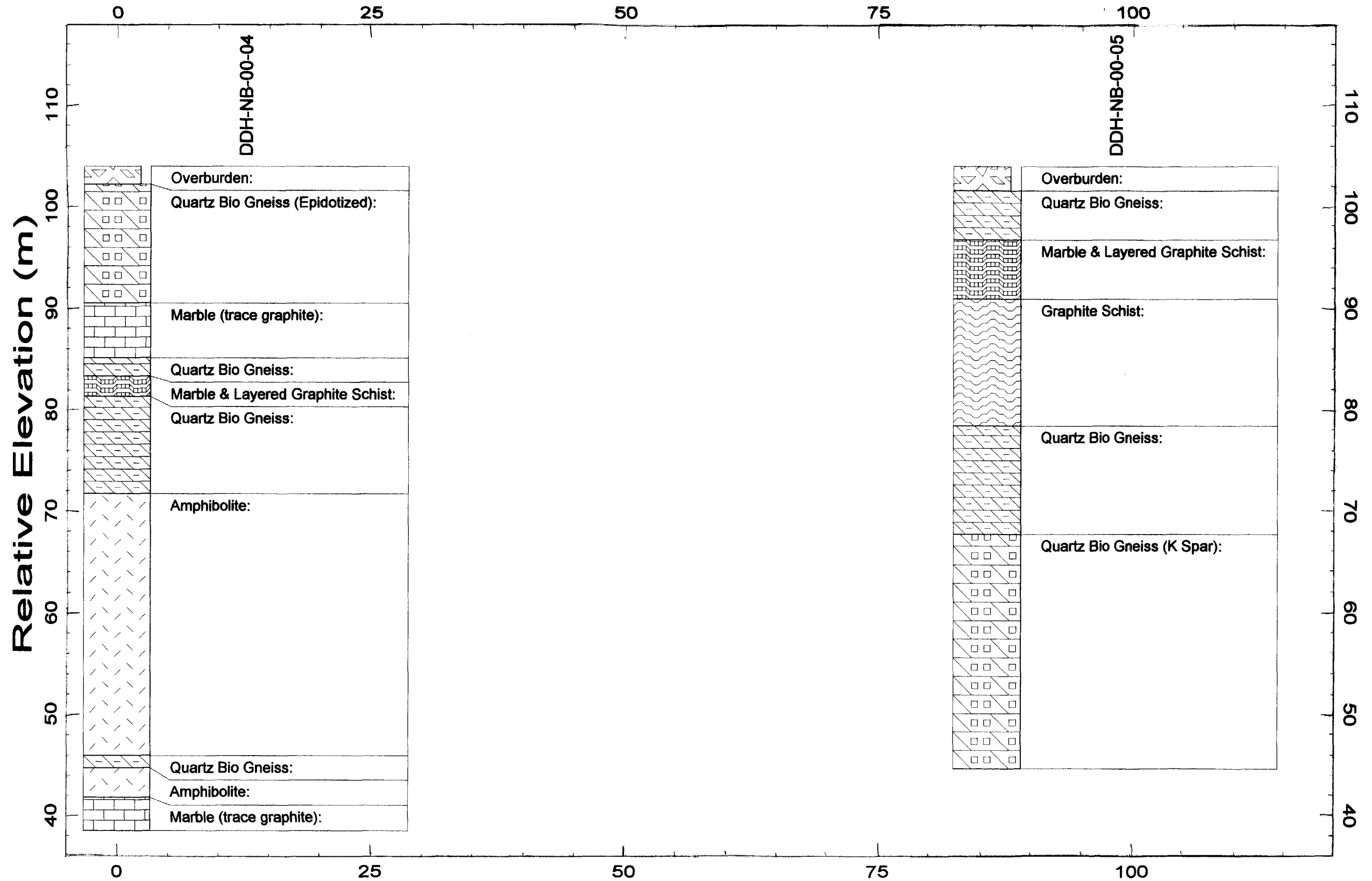
Note : DDH-NB-00-01, 02, 03 were previously reported, January 2001.

<b>MDX GeoServices</b> & Division of Oakridge Environmental Ltd Suite 263, 380 Armour Road P.O. Box 431 Peterborough, On., K9J 6Z3				<b>Diamond Drilling</b> DEC. 2000		<b>Diamond Drill Plan</b> Houston Burgess Graphite Property	
1	revised	JAN.	2001	DDH-NB-00-04	394987, 4954343	TOWNSHIP OF NORTH AND SOUTH BURGESS COUNTY OF LANARK - LEEDS	
2	revised	SEPT.	2001	DDH-NB-00-05	395016 4954332		
				<b>SCALE 1 : 1,250</b>			
				<b>Datum : 1927 Canada</b>			

FIGURE 3.



# East - West Cross Section



**Graphite Mountain Inc.**  
 Houston Burgess Graphite Project

*FIGURE 4.*

## **APPENDIX**

### **Summary of Work Completed**

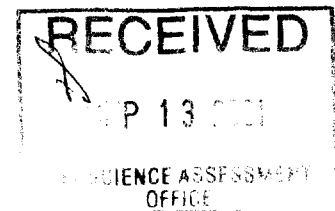
(Table 1)

**Table 1 - Summary of Costs for Work Completed on Claim SO 840570 (to be distributed):**

<u>Period</u>	<u>Description</u>	<u>Expense</u>
12/09/00 to 12/11/00	Diamond Drilling: - total footage <i>this report only</i> - 410 ft - rate - \$14.00 / foot... - GST @ 7%... Total direct drilling this report only	\$ 5,740.00 <u>401.80</u> <b>\$ 6,141.80</b>
11/25/00 to 12/16/00	Allowance for manufacture of NQ Core Boxes (incl all taxes) @ \$ 15/box* - 15 boxes for DDH-HB-00-04 - 13 boxes for DDH-HB-00-05  Total Drilling Related Expenses	\$ 225.00 <u>195.00</u>  <b>\$ 6,561.80</b>

**Notes:** The above direct drilling expenses cover DDH-NB-00-04 & 05 only.

\*The above lumber costs are based on an allowance of \$15/box as prescribed by MNDM for the previous assessment filing (see previous submission # 2.20865). Future assessment report(s) may reflect the remainder of other, related costs for this program.



## **APPENDIX B**

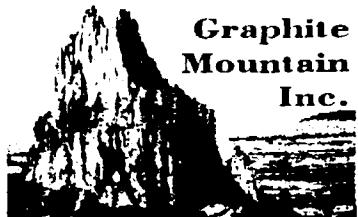
**Diamond Drill Logs**

**Holes DDH-NB-00-04 &-05 only**









**Graphite Mountain Inc.**

# Diamond Drilling Log

Notes / Sketch:

Hole No.  
DDH  
NB-00-05

Page No. 1  
1 of 2

Drilling Company <b>Ron Kor</b>		Collar Elevation <b>104 (est)</b>	Azimuth of Hole <b>vertical</b>	Total Footage <b>195</b>	Dip of Hole at Collar <b>-90</b>	Location where core stored <b>At head office of Graphite Mountain Inc. RL#5 Warkworth, Ontario</b>	Map Reference No.	Claim No. <b>50 840570</b>
Date Hole Started <b>Dec 9/2000</b>	Date Completed <b>Dec 9/2000</b>	Date Logged <b>Sept 7/2001</b>	Logged by <b>Brian King</b>		Fl.	Location (Twp, Lot, Con. or Lat. and Long.) <b>Lot 26, CONCESSION 5 TWP of N. BURGESS 395016 E x 4954372 N (UTM)</b>		
Special Notes: <b>Assay intervals marked - not split</b>		Date submitted	Submitted by (Signature) <b>[Signature]</b>		Fl.			

Footage		Rock type	Description (Colour, grain size, texture, minerals, alteration, etc.)	Planar Feature Angle	Core Specimen Footage	Sample No.	Sample Footage		Sample Length	Assays/Analyses
From	To						From	To		
0.0	8.0	CASING	- granite boulder							
8.0	23.0	Quartz Biobla Green	- grey to buff, f-med crystalline qtz + feldspars + bio + hb green - much ground core / broken - may contain some gravel - lower contact zone ~10cm sandstone - deeply weathered throughout: 1% sulphide (pyrite inclusions)			44148	21.3	23.0		
23.8	43.1	Marble and Graphite Schist	- banded zone of coarse white mbs with disseminated graphite alternating with bands of graphite schist - brecciated, faulted, complex zone - weathered to ~20' - 39.0 - 43.9 - zone of qtz bio green with some intercalated mbs.			44149	23.8	29.5		
						150	29.5	34.6		
						151	34.6	39.0		
						152	39.0	43.1		
43.1	84.0	Graphite Schist	- Dark grey to black - strong mottled appearance - graphite schist - varies fr 10% to 80% graphite, coarse sds with white calcite matrix - occasional breccia zone - 50.0 - 58.2 - zone of banded graphite schist and disseminated sulphide - blas of sp @ 66.3'			44153	43.1	50.0		
						154	50.0	55.0		
						155	55.0	58.2		
						156	58.2	63.1		
						157	63.1	68.2		
						153	68.2	73.5		





**Work Report Summary**

Transaction No: W0190.30700

Status: APPROVED

Recording Date: 2001-SEP-13

Work Done from: 2000-NOV-25

Approval Date: 2001-OCT-15

to: 2000-DEC-16

Client(s):

214917 GRAPHITE MOUNTAIN INC.

Survey Type(s):

PDRILL

**Work Report Details:**

Claim#	Perform	Perform Approve	Applied	Applied Approve	Assign	Assign Approve	Reserve	Reserve Approve	Due Date
SO 748510	\$0	\$0	\$400	\$400	\$0	0	\$0	\$0	2002-SEP-14
SO 748511	\$0	\$0	\$400	\$400	\$0	0	\$0	\$0	2002-SEP-14
SO 748512	\$0	\$0	\$400	\$400	\$0	0	\$0	\$0	2002-SEP-14
SO 748513	\$0	\$0	\$400	\$400	\$0	0	\$0	\$0	2002-SEP-14
SO 748514	\$0	\$0	\$400	\$400	\$0	0	\$0	\$0	2002-SEP-14
SO 840566	\$0	\$0	\$400	\$400	\$0	0	\$0	\$0	2002-SEP-16
SO 840567	\$0	\$0	\$400	\$400	\$0	0	\$0	\$0	2002-SEP-16
SO 840568	\$0	\$0	\$400	\$400	\$0	0	\$0	\$0	2002-SEP-16
SO 840569	\$0	\$0	\$400	\$400	\$0	0	\$0	\$0	2002-SEP-16
SO 840570	\$7,806	\$7,806	\$400	\$400	\$5,200	5,200	\$2,206	\$2,206	2003-SEP-16
SO 840571	\$0	\$0	\$400	\$400	\$0	0	\$0	\$0	2002-SEP-16
SO 840572	\$0	\$0	\$400	\$400	\$0	0	\$0	\$0	2002-SEP-16
SO 840573	\$0	\$0	\$400	\$400	\$0	0	\$0	\$0	2002-SEP-16
SO 840574	\$0	\$0	\$400	\$400	\$0	0	\$0	\$0	2002-SEP-16
	<b>\$7,806</b>	<b>\$7,806</b>	<b>\$5,600</b>	<b>\$5,600</b>	<b>\$5,200</b>	<b>\$5,200</b>	<b>\$2,206</b>	<b>\$2,206</b>	

Status of claim is based on information currently on record.



31C09NW2003 2.22054 BURGESS

900

Date: 2001-OCT-16

GEOSCIENCE ASSESSMENT OFFICE  
933 RAMSEY LAKE ROAD, 6th FLOOR  
SUDBURY, ONTARIO  
P3E 6B5

ALBERT DAVID HOUSTON  
GRAPHITE MOUNTAIN INC.  
BOX 190  
WARKWORTH, ONTARIO  
K0K 3K0 CANADA

Tel: (888) 415-9845  
Fax: (877) 670-1555

**Submission Number: 2.22054**  
**Transaction Number(s): W0190.30700**

Dear Sir or Madam

**Subject: Approval of Assessment Work**

We have approved your Assessment Work Submission with the above noted Transaction Number(s). The attached Work Report Summary indicates the results of the approval.

At the discretion of the Ministry, the assessment work performed on the mining lands noted in this work report may be subject to inspection and/or investigation at any time.

If you have any question regarding this correspondence, please contact BRUCE GATES by email at [bruce.gates@ndm.gov.on.ca](mailto:bruce.gates@ndm.gov.on.ca) or by phone at (705) 670-5856.

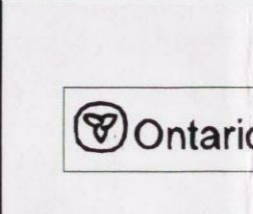
Yours Sincerely,



Ron Gashinski  
Supervisor, Geoscience Assessment Office

**Cc:** Resident Geologist  
Graphite Mountain Inc.  
(Claim Holder)

Assessment File Library  
Graphite Mountain Inc.  
(Assessment Office)



Date / Time of Issue Sep 28 2001 09:56h Eastern

TOWNSHIP / AREA  
NORTH & SOUTH BURGESS

PLAN  
M-0061

ADMINISTRATIVE DISTRICTS / DIVISIONS

Mining Division Southern Ontario  
Land Titles/Registry Division LANARK  
Ministry of Natural Resources District KEMPTVILLE

TOPOGRAPHIC

- Administrative Boundaries
- Township
- Concession, Lot
- Provincial Park
- Indian Reserve
- Cliff, Pit and Pile
- Contour
- Contour - Approx. Auxiliary/Depression
- Shaft
- Mine Headframe
- Railway
- Road
- Trail
- Natural Gas Pipeline
- Hydro Line
- Communication Line
- Wooded Area
- Monument - Cadastral, Historical, Horiz. Control

LAND TENURE

- Freehold Patent
  - Surface And Mining Rights
  - Surface Rights Only
  - Mining Rights Only
- Leasehold Patent
  - Surface And Mining Rights
  - Surface Rights Only
  - Mining Rights Only
- Licence of Occupation
  - Uses not Specified
  - Surface And Mining Rights
  - Surface Rights Only
  - Mining Rights Only
- Land Use Permit
- Order in Council
- Water Power Lease Agreement

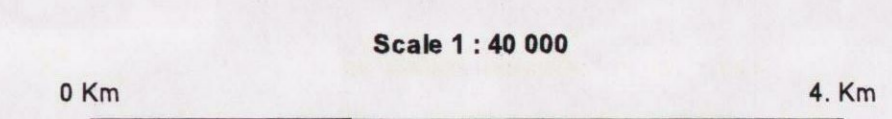
1234567 Mining Claim

LAND TENURE WITHDRAWALS

- 1234 Areas Withdrawn from Disposition
- Mining Act Withdrawal Types
  - Surface and Mining Rights Withdrawal
  - Surface Rights Only Withdrawal
  - Mining Rights Only Withdrawal
- Order in Council Withdrawal Types
  - Surface and Mining Rights Withdrawal
  - Surface Rights Only Withdrawal
  - Mining Rights Only Withdrawal

IMPORTANT NOTICES

Na



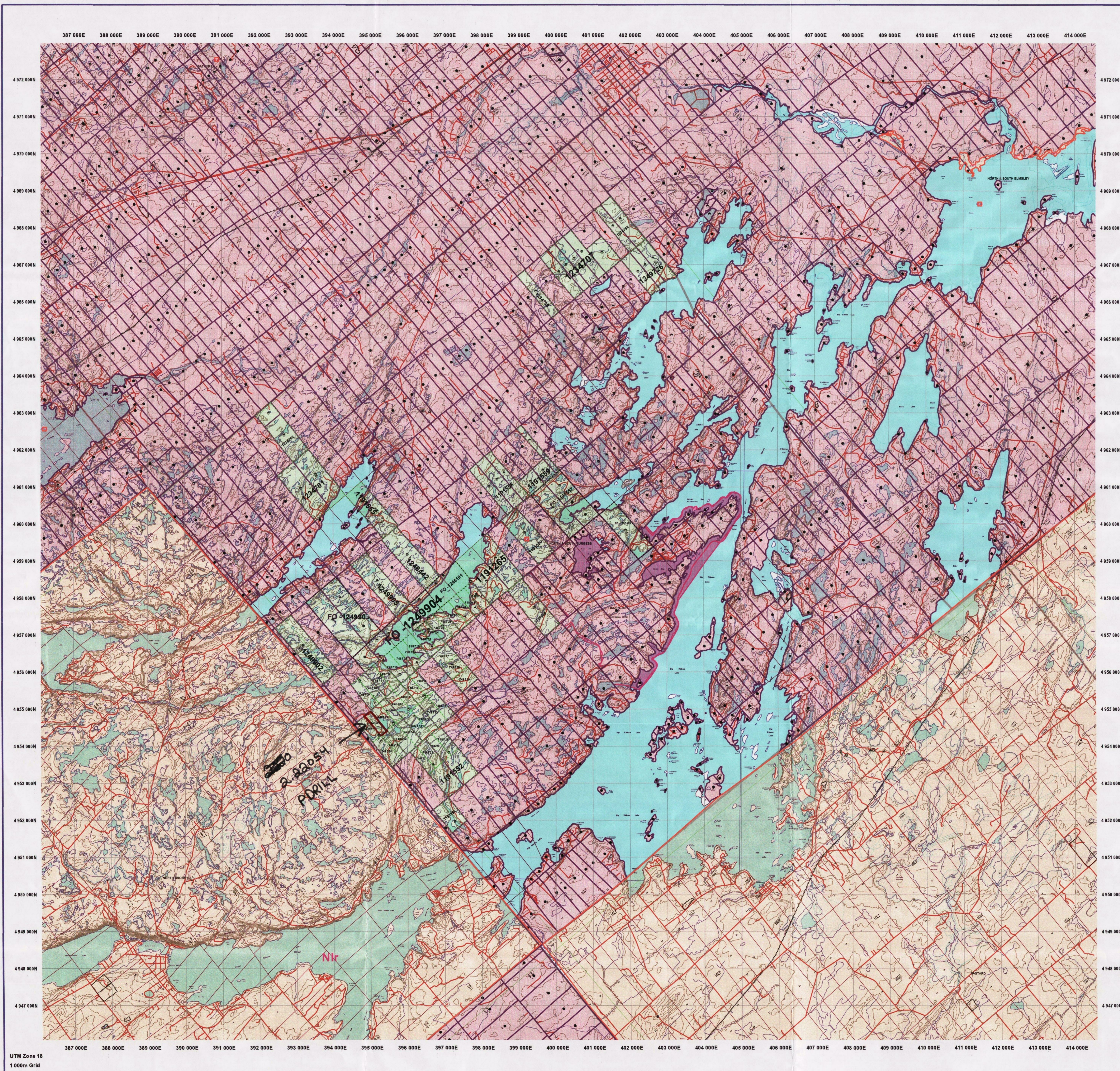
LAND TENURE WITHDRAWAL DESCRIPTIONS

Identifier	Type	Date	Description
8650	Wsm	Jan 1 2001	400 FEET SURFACE RIGHTS RESERVATION AROUND ALL LAKES & RIVERS
8666	Wsm	Jan 1 2001	FLOODED LAND
8668	Wsm	Jan 1 2001	FLOODED LAND
8670	Wsm	Jan 1 2001	FLOODED LAND
8671	Wsm	Jan 1 2001	FLOODED LAND
8672	Wsm	Jan 1 2001	FLOODED LAND
8673	Wsm	Jan 1 2001	FLOODED LAND
8726	Wsm	Jan 1 2001	FOR STATUS OF ISLANDS IN CHRISTIE LAKE PLEASE CONTACT DEPT. OF LANDS & FORESTS
8736	Ws	Jan 1 2001	400 FT SURFACE RIGHTS RESERVATION ALONG THE SHORES OF ALL LAKES & RIVERS
8690	Wsm	Jan 1 2001	400 FT SURFACE RIGHTS RESERVATION ALONG THE SHORES OF ALL LAKES & RIVERS

IMPORTANT NOTICES

Areas under which special regulations, limitations or conditions exist that affect normal prospecting, staking and mineral development activities.

Type	Description
Nlr	For land status within this township, please contact the appropriate Land Registry Office



UTM Zone 18  
1 000m Grid

Those wishing to stake mining claims should consult with the Provincial Mining Recorders' Office of the Ministry of Northern Development and Mines for additional information on the status of the lands shown hereon. This map is not intended for navigational, survey, or land title determination purposes as the information shown on this map is compiled from various sources. Completeness and accuracy are not guaranteed. Additional information may also be obtained through the local Lands Titles or Registry Office, or the Ministry of Natural Resources.

The information shown is derived from digital data available in the Provincial Mining Recorders' Office at the time of downloading from the Ministry of Northern Development and Mines web site.

**General Information and Limitations**

Contact Information:  
Provincial Mining Recorders' Office Toll Free  
Willet Green Miller Centre Tel: 1 (888) 415-8845  
933 Ramsey Lake Road Fax: 1 (877) 670-1444  
Sudbury, ON P3E 6B5  
Home Page: [www.mndm.gov.on.ca/MNDM/MINES/LANDS/mismppge.htm](http://www.mndm.gov.on.ca/MNDM/MINES/LANDS/mismppge.htm)

Map Datum: NAD 83  
Projection: UTM (6 degree)  
Topographic Data Source: Land Information Ontario  
Mining Land Tenure Source: Provincial Mining Recorders' Office

This map may not show unregistered land tenure and interests in land including certain patents, leases, easements, right of ways, flooding rights, licenses, or other forms of disposition of rights and interest from the Crown. Also certain land tenure and land uses that restrict or prohibit free entry to stake mining claims may not be illustrated.

