Vinecrest Assessment Work

Report

#### On

## Mining Claims

## SO 1077365, SO 1077366, SO 1077367, SO 1077370

**Butt Township** 

## **District Of Nipissing**

Southern Ontario Mining Division

Submitted By:

Don K.D. Baxter, P.Eng.

Huntsville, Ontario

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# 2.30463

## EXECUTIVE SUMMARY

Vinecrest Management Services Limited holds four active mining claims in east central Butt Township, Kearney, Ontario. The claims cover a crystalline flake graphite occurrence, referred to as the McGuire East Zone.

A graphitic gneiss unit was identified along the north shore of McGuire Lake. The unit strikes north-east and dips east to south-east. It was traced northeasterly along strike in Claims 1077366, 1077367, for 400 metres and across a width of 90 to 155 metres.

Previous claim holders have done a considerable amount of work (geologic mapping, geophysical surveys and diamond drilling) on the claims.

The purpose of the present work undertaken by the author in 2005 was to cover ground on the southwest corner of claim 1077366 where the graphite zone is known to exist. The intention was to attempt to trace the know graphite horizon onto the southwest corner of claim 1077366. The zone was traced through most of 1077365 but did not show on previous work on 1077366. As the past survey left some ground in the SW corner uncovered, it was decided to attempt to trace the zone from the SW corner post. The survey first established contacts on the NW corner of 1077365.

#### 1. INTRODUCTION

This report, prepared for Vinecrest Management Services summarises work within the boundaries of Mining Claims SO 1077365, SO 1077366, SO 1077367 and SO 1077370, Butt Township (Kearney), Ontario. The author, between August 7th and August 24th, 2005 on claim Number 1077365 and 1077366 completed an electromagnetic survey totalling 2400'. The report is submitted in compliance with the requirements for assessment work credits under the Mining Act of Ontario.

#### 2. PROPERTY DESCRIPTION, LOCATION AND ACCESS

The claim group is located in the north-central part of the annulled portion of Butt Township, Ontario. Access to the property is via highway 518 east through Kearney Ontario to Forestry Tower Road. The site is at approximately the fourteen-kilometre point on Forestry Tower Road at the north shore of McGuire Lake.

The topography of the claim group area is dominated by steep hillsides approximately 100 – 200 feet high, sharp valleys, and bogs. Overburden ranges from several metres in some low marsh areas, to a few centimetres. The low ground is covered by mixed bush, consisting of maple, birch, spruce, and alders. The tops of cliffs are covered with white pine. The high ground is covered with maple, and some birch.

The claim group is adjacent to an inactive open pit mine currently owned by International Graphite Inc. (IGI). The Company has indicated their intention to re-start operations.

#### 3. PREVIOUS WORK

Noranda Exploration Co. Ltd completed an induced polarization survey in the area in 1975. The survey identified an anomalous I.P. zone extending for approximately 6200 feet in length. Although the Noranda survey was concentrated mainly in an area to the south of the subject claim group some of their northern lines did overlap onto what is presently the Vinecrest claim group.

#### VLF SURVEY

A VLF (very low frequency) geophysical survey was conducted during the fall of 1992. The survey revealed an anomalous zone extending for a strike length of approximately 2000 feet. and a width of approximately 900 feet. As the claims to the south contain a drill

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CLAIM MAP: 1077365, 1077366, 1077367, 1077370

proven graphitic zone, the VLF survey indicated an extension of the southern zone. The VLF survey provided drill targets for the fall 1999 diamond drilling program.

#### DIAMOND DRILLING

The VLF survey conducted during the fall of 1999 provided drill targets for a drilling program that commenced in October 1992. Eight diamond drill holes, totalling 3094 feet were completed by mid December 1992.

#### EM SURVEY

The Author has undertaken EM surveys of the surrounding claims held by Vinecrest Management Services. The purpose of the surveys was to investigate the re-appearance of the graphite mineralization identified on claim 1077365.

## 4. GEOLOGY

The Graphite deposit lies within the Grenville Structural Province of the Canadian Precambrian Shield. More specifically, it is located in the Perry Sound Domain, an assemblage of layered paragneiss and minor amounts of marble formed between 1,800 million to 2,500 years ago. Metamorphism has reached granulite facies and heat and pressure have transformed carbon into crystalline graphite flake – rich horizons. The deposit outcrops in moderately hilly topography and dips to the south east at approximately 40 degrees. The quartz-feldspar-crystalline graphite gneiss varies in thickness from 100 to 200 feet. The waste rock is a garnet-biotite-quartz-feldspar gneiss.

Graphitic mineralization in excess of 1.5% Cg with 60-70% medium to coarse flake was intersected over a strike length of 1100 feet. The width of the graphitic zone, as indicated from step-out hole EM-08, is approximately 600 feet. The estimated true thickness of the graphitic zone is 150 feet. The graphitic zone remains open along strike, across width and down dip.

## 5. FIELD WORK

The writer conducted fieldwork on August 7<sup>th</sup>, 2005. The purpose of the work was to investigate, using geophysical field methods and report on, the known graphitic horizon. The study was intended to trace the known graphitic zone from the NE corner of 1077365

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onto the SW corner of 1077366. The writer cut an EM grid utilizing a brush cutter. The lines were established and controlled utilizing a Sokia Set 4A total station survey instrument. The Baseline was cut initially, followed by crosscut lines on 200-foot centres. The total station survey instrument is able to control horizontal distance in uneven terrain. The eastern edge of the claim is quite steep and rugged, therefore adding to survey time.

#### Instrument:

The instrument employed was the Geonics EM15 direct-reading Compact Electromagnetic Unit. The EM 15 is a lightweight personal electromagnetic detector. It indicates targets to be of electrical conductors (graphite) red scale 0-10, or magnetic bodies (magnetite, pyrotite etc.) blue scale 0-10. The coil orientation minimizes the interference from small objects and wet surface material, while providing maximum sensitivity for deeper targets. The maximum useful depth is about 10 metres (30 feet) for large targets. Most overburden will not significantly affect the sensitivity, although very conductive materials such as wet clay may reduce the useful depth somewhat. The writer concludes that in the survey area clay would not be a problem.

Penetration: 30 feet (10 metres) maximum	Readout: Meter shows negative or positive
	secondary field, thus indicating conductors
	or magnetically permeable bodies.
Coil separation: 33 inches	Controls: On/Off switch, zeroing
	adjustments
Measured Quantity: The in-phase (real)	Temperature Range: -45 ° to 60 ° C.
component of the secondary field at 16 khz.	
Resolution: 20 PPM of primary field at the	Battery: One 7 volt alkaline battery. 80
receiver coil for each division of metre.	hours of operational life.
Total 20 divisions.	-
Coil Orientation: Axes 35 ° off the vertical	
for greater sensitivity to deeper targets with	
minimum interference from conductive	
overburden.	

Instrument Specifications:

The present work was intended to trace the known mineralized area from 1077365 as it crosses onto the SW corner of 1077366. A number of conductive sources were detected during the course of the survey. As Graphite is very conductive the instrument was able to pick up the zone with no difficulty. The Author was able to establish the known graphitic zone on 1077365 and then traced the zone onto 1077366. The instrument quickly Don K.D. Baxter, P.Eng., Mining Engineer

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lost contacts, but did establish a cross over the claim boundary. It is not possible to determine if the zone dropped off or the ground cover was too deep for the instrument to pick up any conductive contacts.

## 6. ECONOMIC GEOLOGY

The Vinecrest Claim group contains a potentially economic flake graphite deposit. The exploration work carried out to date confirms that the graphite zone contained within the claim boundaries is an extension of the International Graphite deposit to the south. The flakes of Graphite are moderately to strongly oriented, and range in size from 1.0 to 3.0 mm (Menard/99). The coarseness of the flake is critical to the economic potential, as is the ability to liberate the flake from the matrix without it breaking.

Also, the compressive strength (accepting herein that the graphitic rock on the Vinecrest claims is an extension of the IGI deposit) should be similar and therefore permit a high percentage of coarse flake to be recovered.

Insufficient drilling density exists to conduct proper tonnage estimation, but the drilling does prove an extension of the reserves to the south that strikes through the claim boundary (1077365). Therefore, it is possible to calculate a rough tonnage estimate. The drilling indicated a strike length of 1100 feet; 150 feet true thickness, and a width of 600 feet. Using the ore density of the IGI deposit (11.7cubic feet / ton) the claims contain an approximate geologic inventory of 8.4 million tons grading at approximately 2.20% Cg. If the adjacent IGI mill were used to process the graphite ore the tonnage would translate into eight years of mining (this assumption can only be confirmed by additional drilling and mine design to determine a mineable tonnage.

Further extensions of the deposit do exist to the north-east. It is important to identify where within the claim group the deposit does re-appear.

## 7. RECOMMENDATIONS

Previous EM surveys indicates a continuity of the graphitic unit to the east of the previously identified area. Further EM work should be undertaken to identify the point of contact of the identified graphitic mineralization several km up strike onto claim 1156393 (not held by Vinecrest). Interpretation of previous work in the area would indicate the graphitic unit might be at depth. An instrument with greater penetration should be engaged to confirm this theory. If feasible the author recommends further drilling to compliment drilling done by others on claim 1077365.

#### 8. CONCLUSIONS

The geoscientific evaluation of the Vinecrest claim group and surrounding area has revealed its excellent geologic context and favourable potential for economic graphite mineralization. Economic graphite grades were previously mined on the adjacent claim group leased by International Graphite. As there is a known Graphitic occurrence to the northeast of the McGuire zone it is recommended that further EM work be undertaken to identify the point at which the Vinecrest deposit joins the deposit identified to the northeast. Also as financing allows, a drill program should be undertaken on claim 1077365, to better define the zone, and allow for resource/reserve calculations.

Submitted by

Don K.D. Baxter, P.Eng



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