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43-101 TECHNICAL REPORT

EL TEJON GRAPHITE PROJECT

OAXACA STATE, MEXICO
1:50,000 Topographic Sheet E14D37
UTM (NAD 27) ZONE 14 722200E 1918000N

FOR

BIG NORTH GRAPHITE CORP.
350 – 885 Dunsmuir Street
Vancouver, B.C. V6C 1N5

By; R. Tim Henneberry, P.Geo.
February 14, 2014

SUMMARY

Big North Graphite Corp. is exploring the El Tejon Graphite Property for industrial graphite deposits. The project consists of 1 concession totaling 500 hectares and lies 38 kilometres northwest of Oaxaca, Mexico. The property is road accessible from Oaxaca.

Big North is acquiring all of the issued and outstanding shares of Grafito de Mexico SA de CV legally owned by Cesar Javier Guajardo Villarreal and beneficially owned by MAG Exploration Services Inc. by paying $1,700,000 and issuing 12,500,000 shares over the next 60 months. MAG Exploration Services Inc. holds 97.5% of the issued and outstanding shares of Grafito de Mexico. Grafito de Mexico SA de CV, is the registered and beneficial owner of the El Tejon property, which includes the past producing El Tejon flake graphite mine. The vendors will retain a 3% Net Profits Interest Royalty with the respect to the El Tejon property.

The El Tejon Graphite Project lies within the Oaxaca Terrane of the Sierra Madre del Sur Province of southern Mexico. The Oaxaca Terrane consists of metamorphic Precambrian basement overlain by Cambrian through Cretaceous sediments and minor volcaniclastics. The graphite bearing gneisses are contained within the Precambrian metamorphic rocks. The metamorphic rocks on the property consist of gneisses varying in composition from quartz-feldspar gneiss and barren gneiss to manganese gneiss, mica gneiss, graphite-mica gneiss, and graphite gneiss, the host of the crystalline graphite Cerro Centro de la Cucharita deposit. Marbles also outcrop in the area and the gneisses have been intruded by pegmatites and early Paleozoic ultramafic igneous rocks. Triassic red bed sediments discordantly locally overlie the gneisses in the northern part of the deposit.

There are three flake graphite deposits on the El Tejon property: Cerro Centro de la Cucharita, Temascal Tejon and Curva del 25. Laminations of crystalline graphite generally parallel the foliation within the graphitic gneiss and are also found locally within pegmatites and marble lying within the graphitic gneiss.

The most important of the three deposits is the Cerro Centro de la Cucharita, an elongate 700 metres long by 23 metres to 80 metres wide ore body lying in graphitic gneiss. The height difference between the top and bottom of the deposit ranges from 25 metres in the northwest through 40 metres in the centre to 90 metres in the northeast. The deposit strikes northwest southeast and dips 25^{o} to 50^{o} to the northeast. Graphite content varies from traces up to 6.50% and occurs in the form of small flakes oriented parallel to the foliation of the gneiss and disseminated throughout it. Graphite can also occur as small pockets or threads concordant with the foliation and in small fractures.

The Cerro Centro de la Cucharita deposit was in production from 1980 to 2002. A compilation of incomplete production records from 1980 to 2002 suggests total production from the Cerro Centro de la Cucharita deposit is in the range of 760,000 to 1,000,000 tonnes. A semi-detailed sampling program completed in 1989 consisted of 713 samples across the entire graphitic gneiss horizon suggests a grade in the order of 3.5% Cg.

Pineda Ramirez and Rodrigues Cortes (1990) calculated an historic estimate consisting of an historic proven reserve of 2,866,372 tonnes and a probable historic reserve of 5,314,522 tonnes at an average grade of 3.54% graphite carbon. Subsequent production suggests 350,000 to 450,000 tonnes of the historic proven reserve was subsequently mined. The historic estimate is relevant as it indicates graphite mineralization does occur in the Cerro Centro de la Cucharita deposit. The tonnage of material is reliable while the grade needs further definition as the 1989 maps showing the individual sample locations indicate gaps within the sampled section. The average grade of the 16 January 2014 random verification samples was 3.89% graphite carbon, suggesting a 3.54% Cg grade may be reasonable.

The 1990 estimate was calculated by Pineda Ramirez and Rodriguez Cortes based on their mapping and sampling program. The Cerro Centro de la Cucharita estimate was calculated by constructing 12 geologic / topographic sections perpendicular to the general strike of the Cerro Centro de la Cucharita deposit. The distance between sections was subject to the form of the deposit and the location of the mine workings. Volumes were determined using the formula (A1 + A2)/2 X D X P.E. = T, where A1 and A2 represent the area of the vertical cuts of the deposits in adjacent sections, D is the horizontal distance between the sections, P.E. is 2.5 cubic metres per ton, the specific gravity and T is the resulting tonnage.

The proven and possible reserve categories utilized by Pineda Ramirez and Rodriguez Cortes in their 1990 estimates appear to be similar to the definitions of indicated mineral resource and an inferred mineral resource respectively. However, the sampling is too far spaced and there are gaps in the sampled sections that need to be explained. In addition, there was no drilling included to verify the third dimension.

In order to upgrade or verify the 1990 historical estimates as current mineral resources, Big North Graphite Corp. will need to complete a detailed sampling program on the existing workings and undertake a reverse circulation or diamond drilling program over the deposit at a spacing of 100 metres by 50 metres to establish the continuity of mineralization at depth.

A qualified person has not done sufficient work to classify this historical estimate as current mineral resources or mineral reserves. Big North Graphite Corp. is not treating the historical estimate as current mineral resources or mineral reserves.

A program of detailed sampling and diamond drilling is recommended to move the historic estimate into a current resource. The sampling should be directed at the all existing workings, including the pit, the adits, all trenches and cuts and all roads. Upon completion and compilation of the sampling, a follow up program of diamond drilling will test for the continuation of mineralization to depth and provide continuous sampling across the full extent of the graphitic gneiss ore body. The first pass drilling should consist of 10 to 15 holes which will give one to two intersections at 50 and 100 metre depths along the full 700 metre extent of the graphitic gneiss. A budget of 2,500 metres will be more than sufficient for the first pass.

The cost of the proposed sampling program is US$200,000.

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INTRODUCTION

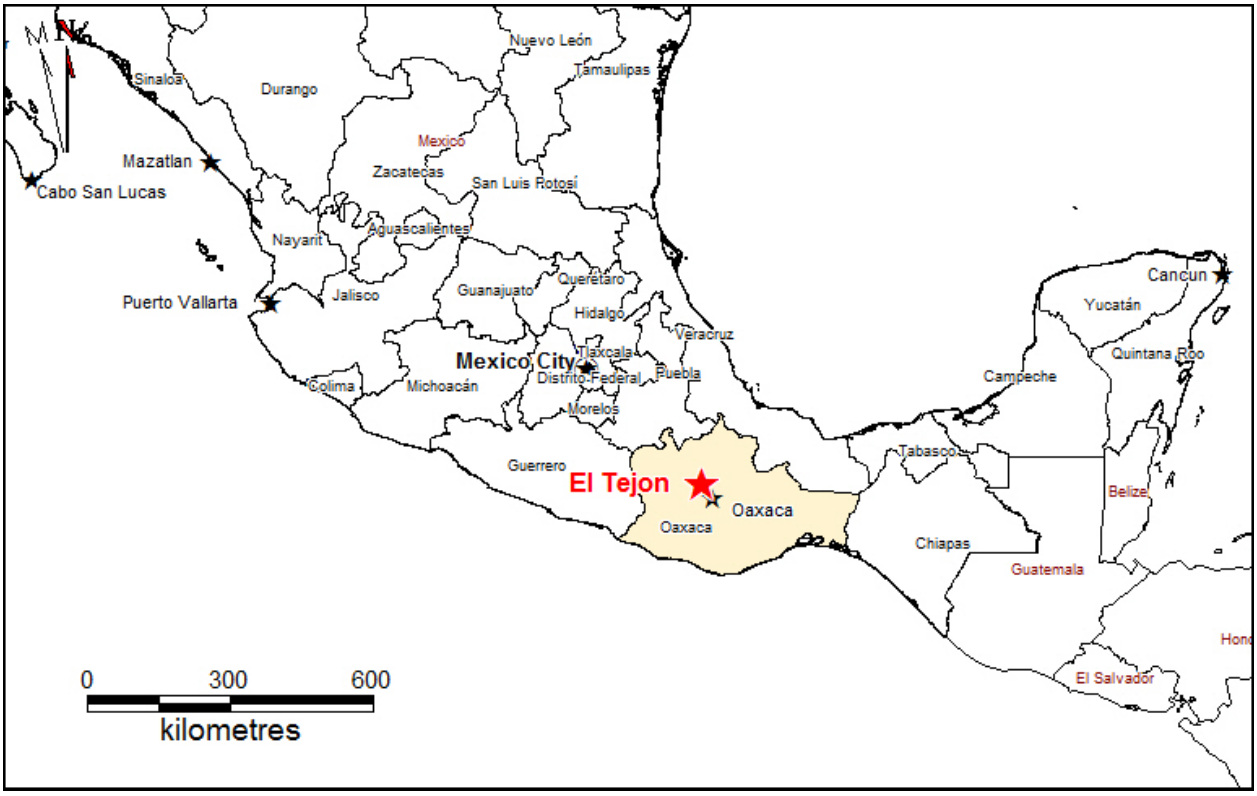
The purpose of this report is to compile the available geological information on the EL Tejon Graphite property. Big North Graphite Corp. can acquire the property through the purchase of 97.5% of the issued and outstanding shares of Grafito de Mexico Sa de CV, that are currently legally owned by Cesar Javier Guajardo Villarreal of Monterrey, Mexico and beneficially owned by MAG Exploration Services Inc. of Apache Junction, Arizona.

This report was commissioned by Mr. Spiro Kletas, the CEO of Big North Graphite Corp.

R. Tim Henneberry, P.Geo. serves as the Qualified Person responsible for preparing the Technical Report.

In preparing this report, the author relied on geological reports listed in the References (Section 21) of this report. The Spanish language reports on the El Tejon graphite deposits were translated from Spanish to English by Mr. Roy Fuller, counsel for MAG Exploration Services Inc. the property vendor. The author visited the El Tejon Graphite Property on January 17-19, 2014.

All UTM coordinates throughout this technical report are in the datum of NAD 27 in Zone 14, unless otherwise specified.



Projection is Lat / Long WGS 84

Figure 1. Location Map

RELIANCE ON OTHER EXPERTS

The author is not relying on a report or opinion of any experts. The author is relying on the opinion of Mauricio Heiras Garibay, Abagado of Chihuahua, Mexico for a title opinion. Heiras Garibay has reviewed the staking and title records in Hermosillo and confirm the claims are in good standing and owned and beneficially held by Grafito de Mexico SA de CV.

PROPERTY DESCRIPTION AND LOCATION

The EL Tejon Graphite Project lies on 1:50,000 topographic sheet San Francisco Telixtlahuaca (E14D37) in Oaxaca County, Mexico. The Project consists of one concession as shown in Figure 2 and listed in Table 1. The geographic center of the property is 722000E 1918000N both in UTM ZONE 14 NAD 27.

Table 1. List of Concessions

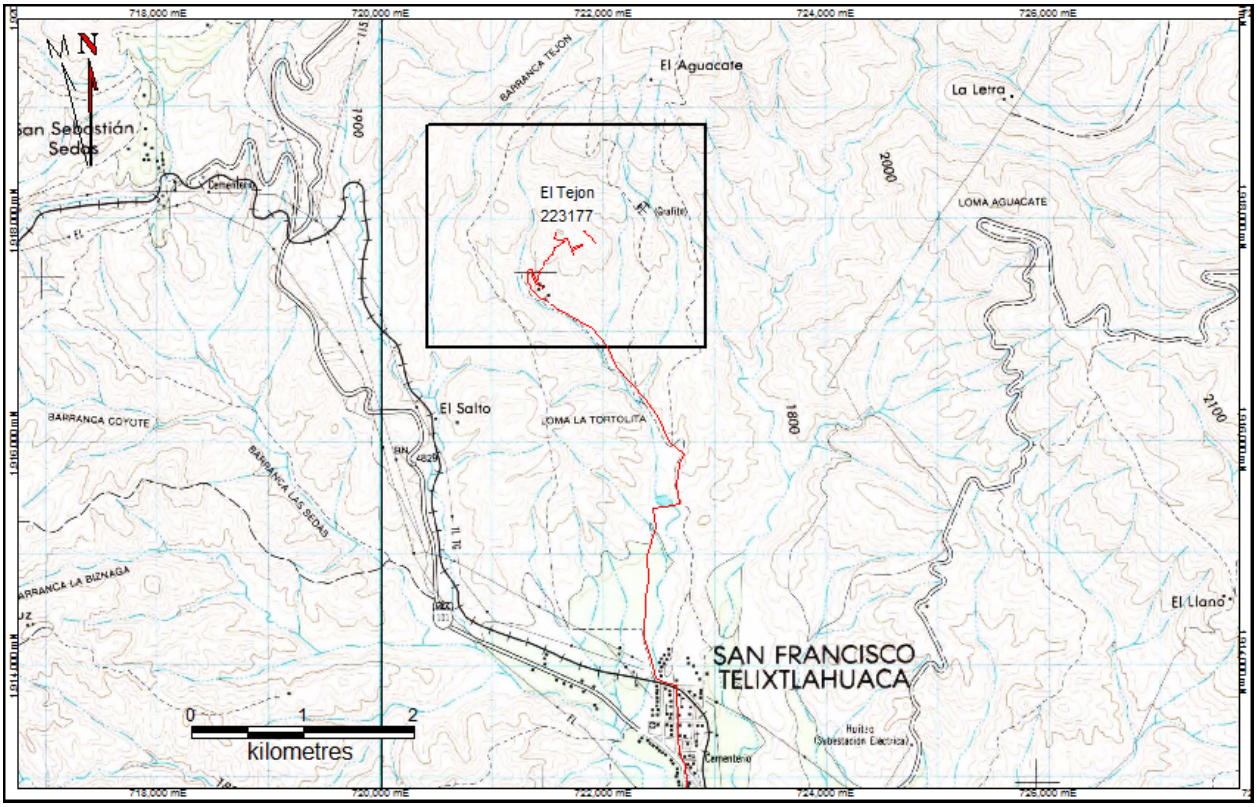
Concession	Number	File Number	Grant Date	Valid Until	Hectares
EL Tejon	223177	062/09658	08/06/2004	October 28, 2054	500

Big North Graphite Corp. and MAG Exploration Services Inc. entered into an initial Letter of Intent dated September 10, 2013, followed by Big North Graphite Corp, MAG Exploration Services Inc. and Cesar Javier Guajardo Villarreal entering into a share purchase agreement dated January 31, 2014 to allow Big North to acquire all of the issued and outstanding shares of Grafito de Mexico SA de CV legally owned by Guajardo and beneficially owned by MAG, which is 97.5% of the total issued and outstanding. Grafito is the registered and beneficial owner of the El Tejon property, located in Oaxaca, Mexico as outlined above. The terms of the agreement are as follows, all expressed in US dollars:

- $30,000 (U.S.) upon signing the LOI as a non-refundable deposit (paid);
- Pay $30,000 (U.S.) on signing the definitive agreement - $15,000 to Guajardo and $15,000 to MAG;
- Pay $90,000 (U.S.) on the six-month year anniversary of signing the definitive agreement - $45,000 to Guajardo and $45,000 to MAG;
- Pay $100,000 (U.S.) on the 12-month year anniversary of signing the definitive agreement - $50,000 to Guajardo and $50,000 to MAG;
- Pay $100,000 (U.S.) on the 18-month year anniversary of signing the definitive agreement - $50,000 to Guajardo and $50,000 to MAG;
- Pay $125,000 (U.S.) on the 24-month year anniversary of signing the definitive agreement - $62,500 to Guajardo and $62,500 to MAG;
- Pay $125,000 (U.S.) on the 30-month anniversary of signing the definitive agreement - $62,500 to Guajardo and $62,500 to MAG;
- Pay $150,000 (U.S.) on the 36-month year anniversary of signing the definitive agreement - $75,000 to Guajardo and $75,000 to MAG;
- Pay $150,000 (U.S.) on the 42-month year anniversary of signing the definitive agreement - $75,000 to Guajardo and $75,000 to MAG;

- Pay $400,000 (U.S.) on the 48-month year anniversary of signing the definitive agreement - $200,000 to Guajardo and $200,000 to MAG;
- Pay $400,000 (U.S.) on the 60-month year anniversary of signing the definitive agreement - $200,000 to Guajardo and $200,000 to MAG;
- Issue 5,000,000 common shares within five business days of TSX Venture Exchange approval of the definitive agreement – 1,500,000 to Guajardo and 3,500,000 to MAG;
- Issue 7,500,000 common shares on the 12-month anniversary of signing of the definitive agreement 1,500,000 to Guajardo and 6,000,000 to MAG.

MAG and Guajardo will retain a 3% Net Profits Interest Royalty with the respect to the El Tejon property – 1.5% for Guajardo and 1.5% for MAG. Big North has the right to purchase all or any portion of the royalty for $333,333 for each 0.5% or $2,000,000 for the entire royalty.



Projection is UTM NAD 27 Zone 14 **Figure 2. Claim Location**

To the best of the author's knowledge, the El Tejon property is not subject to any environmental liabilities.

The El Tejon property has been in production as recently as 2002, according to the president of Grafito de Mexico S.A. The processing plant will require some refurbishment, but is generally in good shape. The tailings facility is also in good shape. According to the president of Grafito de Mexico S.A. a water well in nearby Telixtlahauca provides processing water to the mill.

The mining and operating permits have been suspended or lapsed with the shutdown of operations in 2002. To the best of the author's knowledge Big North plans to undertaken the necessary steps to reacquire or reinstate the permits or authorizations. Reinstatement of the permits will allow the drilling component of the proposed exploration program. The sampling component will not require a permit. The permits or authorizations required to recommence production are as follows:

- Exploitation Concession authorization from the Ministry of Economy to allow the full exploitation of the graphite.
- Beneficial Plant Concession authorization from the Ministry of the Economy to process the graphite on the mining concession.
- Environmental Impact Authorization from the Secretaría de Medio Ambiente y Recursos Naturales (SEMARNAT) to undertake the mining operations as described in the Environmental Impact Statement.
- Operating License from SEMARNAT to undertake mining and milling operations within air emissions guidelines.
- Water Concession – Water Discharge License from the National Water Commission authorizing the discharge of waste water.
- Hazardous Waste Generation Registration from SEMARNAT an authorization relating to the management and disposal of mining wastes.

The agency review timelines for the permits is generally 60 days. The timeline for a review of an Environmental Impact Statement is 90 days. The Exploitation Concession and Beneficial Plant Concession authorizations and the Environmental Impact Statement have to be approved before application for the remaining permits can be made.

The only other significant factor made known to the author is the perpetual contract with the Mexican Miners Union. The El Tejon operation has a contract in place with the local chapter of the Union, who has acted as watchmen since production ceased in 2002 in part to protect their contract. Prior to the recommencement of operations a settlement will be required for compensation for the years spent as watchmen. Big North's Mexican representative has been in preliminary negotiations with the Union, with the intent to move negotiations forward once start-up production has been firmed up.

ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

The road accessible El Tejon Property lies 38 kilometres northwest of Oaxaca, Oaxaca State, Mexico within the Municipality of San Francisco Telixtlahauca. Access is as follows: travel north on Panamerican Highway 132 for 32 kilometres turning onto Highway 131 for 2 kilometres to the village of Telixtlahuaca. A 6 kilometre gravel road leaving north from Telixtlahuaca accesses the main deposit.

The topography of the area is mountain and valley with topography ranging from 1500 metres in valley bottoms to 3000 metres on the mountain tops. The deposits lay on the mid slopes of a lower mountain between elevations of 1900 and 2000 metres above sea level. Vegetation consists of shrubs and fruit trees, largely guava and avocado, in the lower slopes with pine and oak on the higher slopes.

The field season is year round, though the rainy season between June and September can impede field work for short periods during that time. Day time temperatures range from the mid 20^{o}'s through most the year to the low 30^{o}'s between March and May. Night time temperatures range from the low 10^{o}'s through most the year to the mid 10^{o}'s between May and September. Rain falls mostly between June and September, with annual precipitation of 750 millimeters.

The El Tejon property is a recent past producer. The operating company, Grafito de Mexico S.A., had agreements in place with the local Ejido for surface rights when the mine was in production. The Company anticipates no issues in entering into a new agreement with the local Ejido once operations recommence. Power lines run right to the mine. Water is supplied from the well in nearby Telixtlahauca. Mining personnel are also sourced from the town or from Oaxaca. The tailings storage area still has some capacity, but the dam will eventually need to be raised. Currently 97% of the material mined went through the mill and this likely to continue into the future. Heap leach pads are not required. The mill is in place and required minimal refurbishing to commence operating.

HISTORY

The history of the exploration and development of the El Tejon graphite deposits has been summarized in Pineda Ramirez and Rodrigues Cortes (1990). Only a limited number of the reports summarized by them were available to the author. Their 1989 production geology map was rectified into the MapInfo Discover GIS package. Control points were minimal, so locations of the geology and workings must be considered approximate. The map they supplied with the report was more a production map, breaking the graphitic gneiss into mineable, semi-hard graphitic gneiss, hard or unmineable (in 1989) graphitic gneiss or barren gneiss. This is the base map for Figures 3a and 3b. The shaft pits described in the 1977 report were not plotted on the 1989 map so the author is not able to show their locations. The outline of the pit GPS surveyed by the author during the January 2014 property visit is also shown on these figures.

Historic workings in the Centro de la Cucharita zone of El Tejon suggest about 8,000 tons were mined prior to modern exploration. Other deposits in the region were also mined on a limited scale, though no documentation appears to exist. Modern exploration began in 1954 when Marcelino Reyes Paredes, the Head Engineer of the Comision del Papaloapan, conducted a study to initiate economic interest in the graphite of the region. This appears to have spurred some interest as Minera Aida, S.A. completed a 1958 report *Report Regarding Graphite Minerals in the State of Oaxaca, Mexico* by its president, Edward H. Holsom. The 1958 report made recommendations to exploit the graphite.

The next documented work occurred in 1967 when the Mineral Section of "Plan Oaxaca", studies of the Resources of the State of Oaxaca, published a study called *Exploitation Project of Crystalline Graphite in the State of Oaxaca*. This study reported the graphite zone begins about 30 kilometres from Oaxaca and includes 7 important deposits: Temaxcal, Cucharita, Pena Chiquita, El Moral, Cahuao Inferior, Cahuao Superior, and Zopilote, of which Temaxcal is the most the important. The Temaxcal deposit is located 6 kilometres to the NW of San Francisco Telixtlahuaca at an elevation of approximately 1,830 meters above sea level. The granitic gneiss hosted Temaxcal graphite deposit is about 600 metres long by 18 metres wide, oriented east-west and irregular form. A 150 metre difference in elevation was noted the top and the bottom of the deposit and a thickness of 45 metres was observed on the south side where the deposit is cut by a canyon. The graphite content of the Temaxcal deposit is very uniform, with some higher grade portions that may be amenable to an open pit system. A brief note was included on each of the other 6 deposits, none of which lie on the present El Tejon concession.

Based on three samples taken by the laboratory LANFI, a *Study to Define the Nature of the Graphite Mineralization in the Deposits of Telixtlahuaca, Oaxaca* was completed in 1974-1975. Three samples were taken, presumably from claims of the day named: El Tamulon, located 4 kilometres west of Estacion Las Sedas; Don Martin, located 500 metres north of El Tamjulon; and Don Principito, located 10.8 kilometres north of Estacion Las Sedas. The report further verified the existence of crystalline graphite in the Telixtlahuaca area and suggested the graphite contained in the gneisses is easily extracted due to its efficient concentration through flotation and gravity. The El Principito sample indicated recovery through primary flotation is excellent, eliminating the need for chemical media. A study of the market conditions of crystalline graphite, followed by a preliminary study regarding a processing plant at an industrial scale was recommended.

Salvador Zamora Montero of the Non-Renewable Natural Resources Council of Oaxaca completed a 1975 report *Geology of the Crystalline Graphite Deposits of the State of Oaxaca*. He found the key graphite area is oriented northwest-southeast and covers 6 square kilometres northeast, north and northwest of the village of Telixtlahuaca and includes the following locations Arroyo de la Flor, Pena Chiquita, Arroyo del Tejon, Pena Grande, La Cucharita, and Centro de la Cucharita. A second area was located at Cerro de la Carbonera, about 14 km along the Telixtlahuaca-Textitlan highway. Towards the area of Parian, near Estacion La Escondida, and a place known as El Conejo, connected by the Mexican Southern Railroad, as well as near the village of Parian, several mines have been worked in which more than 100 tons of graphite have been extracted.

The first detailed fieldwork was completed in 1976 by the Natural Resources Council (formerly the Non-Renewable Natural Resource Council) (Sanchez Bautista et al, 1976). Their results are detailed in the following paragraphs.

The 1976 program consisted of surveying of 25 geologic sections, excavation of 10 trenches, sampling, drilling of three exploration drill holes and topographic surveying. Mapping of the sections indicate graphite is found in gneiss, and also in marble and ultramafic rock. The mineralized zones consist of thin layers of gneiss with disseminated graphite content between 2% and 4.5% exposed in a northwest-southeast trend along 1500 metres of strike length over a width of 150 metres. The mineralized gneiss in fractured and weathered, but importantly, the graphite flakes appear to be resistant to physical and chemical alteration. Even though the surrounding rock may be weathered to clay, strongly oxidized, or lost it strength, the flake graphite retains its original characteristics.

Ten trenches were excavated in the Centro de la Cucharita deposit and three trenches were excavated in the La Curva del 25 area. All trenches were oriented perpendicular to the strike of the gneissic metasediments and spaced 100 metres apart. The Centro de la Cucharita trenches ranged from 54.5 to 175 metres in length with an aggregate length of 1267.5 metres, 50 to 100 centimetres in depth and 70 to 100 centimetres in width. The La Curva del 25 trenches ranged from 55 to 65 metres in length with an aggregate length of 175 metres, 1 metre in depth and 1 metre in width.

A total of 23 samples were taken from the trenches: 19 from the Centro de la Cucharita trenches and 4 from the La Curva del 25 trenches, as only visible mineralization was sampled. The authors did not indicate which trench and at which length each of the samples was taken. The results are shown in Table 2

Table 2. 1976 Trench Sampling

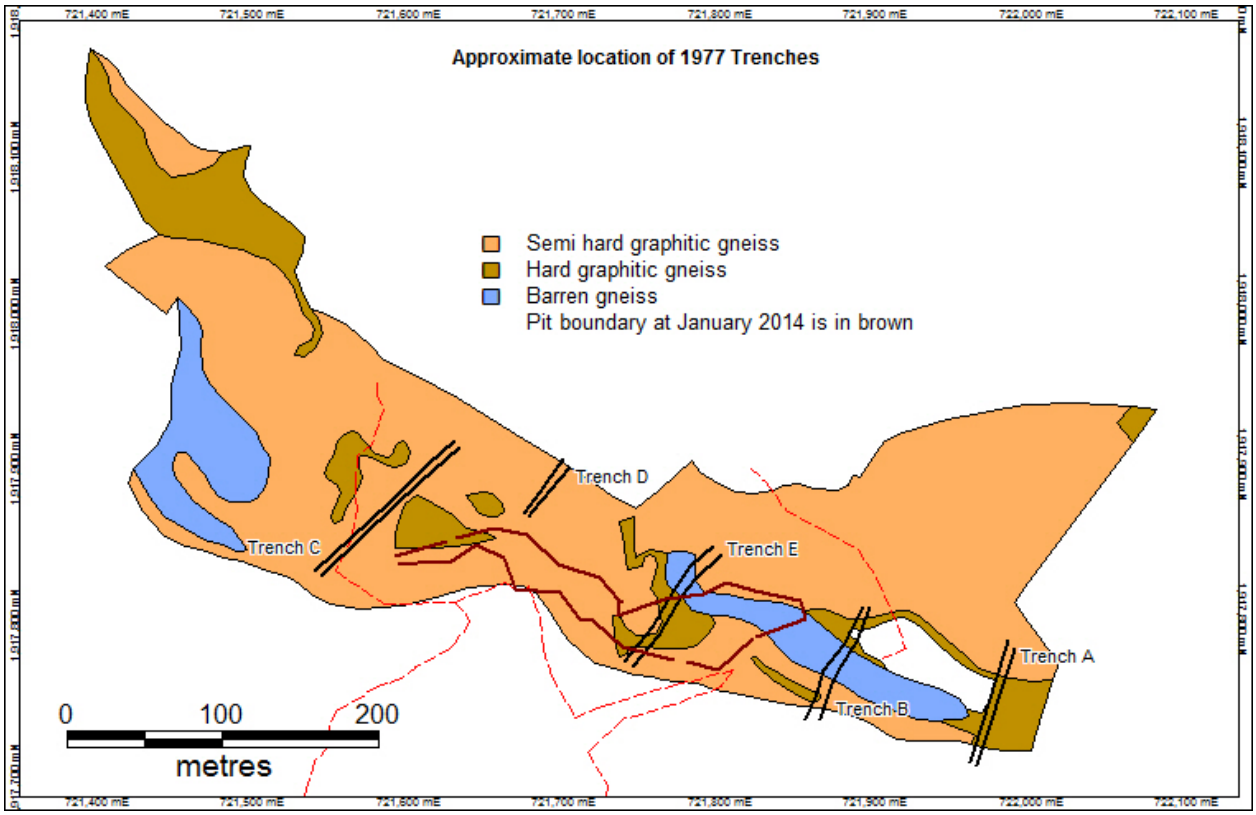
Sample	% Graphite	kg weight		Sample	% Graphite	kg weight		Sample	% Graphite	kg weight
1	5.330	10.0		8	4.210	18.5		15	4.300	14.7
2	3.260	10.0		9	3.250	9.8		15a	4.770	22.0
3	3.740	5.2		10	3.820	18.5		15b	5.660	17.0
4	4.800	20.4		11	2.880	2.8		16	3.720	28.5
5	4.460	3.7		12	4.340	18.0		17	4.480	29.8
6	2.040	27.3		13	4.380	46.5		18	3.540	17.0
7	3.480	15.0		14	4.180	95.3		19	3.490	14.7

Three holes were drilled in the eastern part of the Centro de la Cucharita deposit in an effort to determine the thickness of the weathered gneiss. Hole one, collared in trench number 2, ran 88 metres on an azimuth of S30W (210^{o}) at -60^{o}. The hole alternated between layers of weathered and unweathered rock. Hole two was drilled from the same location on the same azimuth at -45^{o}. The bit hit bad ground at 18 metres and was stopped. Hole three was collared 75 metres to the southwest of hole 1 at -90^{o}. Again the hole was stopped at 18 metres due to bad ground. No sampling was mentioned in the report.

A 10 kilogram composite of the trench samples was prepared for metallurgical testing. The testing confirmed the earlier test results indicating a flake graphite concentrate can be produced with minimal grinding, thus preserving the size of the graphite flakes.

Sanchez Bautista et al (1976) calculated a mineral reserve based on the results of their exploration program that will be discussed later in this section.

The Mexican Commission of Non-Metallic Minerals completed an exploration program in 1976 producing a report called *Preliminary Geologic-Economic Study of the Crystalline Graphite Deposits in San Francisco Telixtlahuaca, Oaxaca*. Four trenches were excavated, mapped and sampled at 5 metre intervals. The mapping and sampling found the Cerro Centro de la Cucharita lies within gneiss derived from a sequence of sedimentary rocks. The gneiss is mineralized with graphite, which is seen in the form of small elongated flakes and small crystals of hexagonal habit. In limited areas, the graphite is found intercalated with mica. The content of graphite varies from traces up to 6% graphite based on field observations. A zone of mineralization varying in thickness from 8 to 70 metres was identified with an area of 11,000 square metres.



Projection is UTM NAD 27 Zone 14

Figure 3a. 1977 Trench Locations

Twenty one samples sourced from the trenches of the two 1976 programs were sent to laboratories of the Tecamachalco Unit of the Mineral Development Commission, and to the National Industrial Development Laboratories, resulting in a report titled *Partial Report Regarding the Study of 21 Samples of Graphite Mineral from Telixtlahzuca, Oaxaca*, from the latter laboratory. The graphite grades varied from 2.04% to 5.66% with a general average calculated of 4.075% and analyzed at 4.48%. A 10 kilogram composite was made from the samples and crushed with minimal grinding to preserve the integrity of the graphite flakes to -48 mesh. The material was then sieved to -48 mesh, producing a coarser and finer fraction. Two splits of the finer fraction were taken, running 3.54% and 3.52% graphite. The metallurgical testing indicated the coarser graphite could be floated to produce an attractive product.

Further metallurgical testing followed on the material from the 21 samples (?) reported in *Metallurgical study of Graphite Mineral Samples From Telixtlahuaca, Oaxaca, and Presentation to the Laboratories by the Mexican Commission of Non-Metallic Minerals*. This survey concluded the material received is classified as graphite-mica gneiss. The average grade was 4.25% graphite and the graphite tends to laminate during grinding with 79% of the graphite liberated at -100 mesh or 82.8% liberated at -200 mesh. The mineral should be floated in a primary operation with a size of -48 mesh. The overflow should be re-ground to -100 mesh and floated in high dilution (6:1), cleaning the concentrate in successive stages of open circuit. The process should be able to concentrate the graphite to 96.3% graphite. A Raymond impact mill was suggested in order to subject the concentrates to energetic shaking at a high velocity with an open release to produce two streams: one with a high graphite content and the other that would have to be recleaned by flotation in an open circuit.

The Mexican Commission of Non-Metallic Minerals sent Alvaro Pineda Ramirez and Felix Ubaldo Alarcon Lopez to undertake a program of mapping, trenching, road building and drilling and also collecting a 15 ton bulk sample for the metallurgical testing from the Centro de la Cucharita deposit (Pineda Ramirez et al, 1977). Detailed mapping was completed in the central portion of the deposit covering an area of approximately 100,000 square meters. One hundred and sixty metres of road was opened in the western portion of the deposit and 200 metres was opened in the southern portion. Five trenches aggregating 460 metres in length were cut to a maximum depth of 6 metres. One hundred and fifty seven samples were taken from the roads and trenches. Eight shaft pits of varying depths were sunk from the bottom of the 5 trenches.

An additional 10 shaft pits were sunk to the north of the trenches. Thirty three samples were taken from pits. Fifteen tons of material was removed from the trenches for the metallurgical testing. Maps and sections were constructed and a reserve was calculated. In addition, possible locations for a processing plant were considered. Analyses were completed at two different Mexican laboratories: the Commission of Mineral Development, Tecamachalco Unit (CFM), and the National Laboratories of Industrial Development (LANFI) undertook the analyses. A summary of the analytical results from the sampling is shown in Table 3. There are some discrepancies between the results from the two laboratories that were not addressed in the report.

Table 3. 1977 Sampling Summary

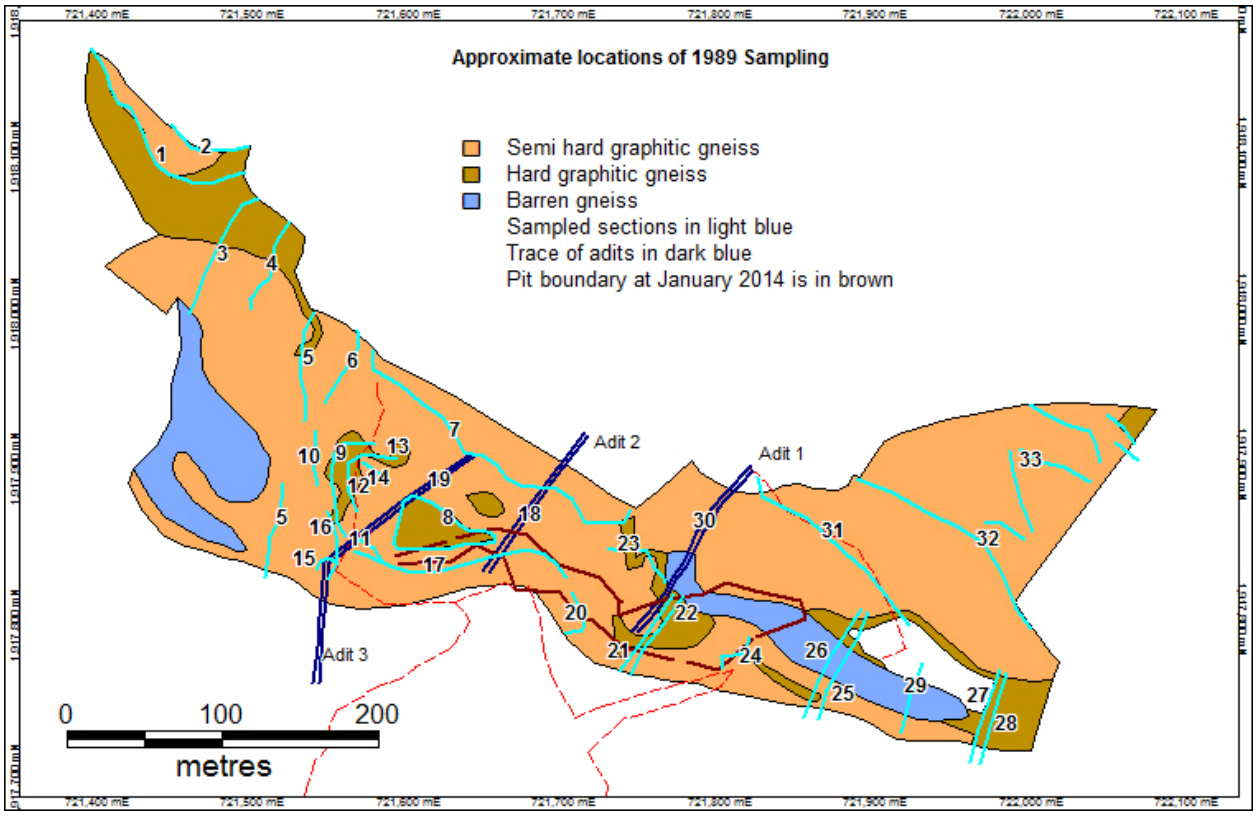
Location	no of Samples	metres Length	CFM % Carbon	LANFI % Carbon		Location	no of Samples	metres Length	CFM % Carbon	LANFI % Carbon
Trench A	16	32.00	3.40	3.70		Shaft 5		10.2	3.27	3.27
Trench B		53.00	3.36	3.11		Shaft 6		10.3	5.09	5.09
Trench B (I)	5	18.45	3.30	3.04		Shaft 7		6.2	3.43	4.17
Trench B (II)	5	18.00	3.46	3.50		Shaft 8		5.0	3.77	3.16
Trench C	25	95.60	4.07	3.90		Shaft 9		8.0	3.29	3.91
Trench D	4	22.50	4.15	3.81		Shaft 10		10.2	5.14	4.43
Trench E	19	64.90	4.33	4.26		Shaft 11		10.0	3.89	3.48
Trench F	8	28.30	3.87	3.40		Shaft 12		10.1	3.49	2.39
West Road Cut	27	70.50	4.01	3.13		Shaft 13		10.0	4.74	3.78
South Road Cut	19	80.70	4.70	3.95		Shaft 14		10.0	3.00	2.16
Shaft 1		4.1	4.36	4.10		Shaft 15		5.2	4.88	4.87
Shaft 2		7.0	3.29	2.78		Shaft 16		10.0	4.26	3.66
Shaft 3		8.5	4.41	3.98		Shaft 17		8.5	3.68	2.58
Shaft 4		7.5	4.65	4.89		Shaft 18		5.0	3.05	2.39

The next event described in Pineda Ramirez and Cortes (1990) occurred in 1983. Between 1977 and 1983 it appears a plant was installed and the property was placed in production by Grafito de Mexico, S.A. In 1983, expanding the capacity of the processing plant was considered, necessitating an increase in reserves. Three adits were driven in order to accomplish the reserve increase: Adit No. 1 driven southwest for 130 metres, Adit No. 2 driven northeast for 170 metres and Adit No. 3 driven north for 80 metres, then northwest for 200 metres in total length. Two shafts were sunk in Adit No. 2 to depths of 10 metres. There were no further descriptions of the adits or sample results.

The last report mentioned is *The Economic Geology of the Mining Exploration of the Deposit of Crystalline Graphite Located in San Francisco Telixtlahuaca, Oaxaca* by Jose Carmen Rodriguez Cortes dated 1983. This report included and updated reserve estimate to be discussed at the end of this section. He reported Grafito de Mexico, S.A. was processing 250 tons of graphite gneiss daily (installed capacity) with an average grade of 4.01%, and was contemplating the possibility of doubling the capacity. He also reported the final product was competitive in international markets. He mentioned that pyrite was encountered in the material from the adits and recommended metallurgical testing to avoid potential problems at the time of material processing. He also recommended a 20 metre shaft in adit 2 to test the area of the most intense pyrite.

Grafito de Mexico, S.A. was acquired by Mexican investors led by the Grupo Valdes at the end of 1988. The plant was expanded to 500 tons on October 17, 1989.

Pineda Ramirez and Rodriguez Cortes (1990) carried out and evaluation and exploration program on the property concentrating on the Cerro Centro de la Cucharita, Temascal-Tejon, and Curva del 25 areas. They reconditioned all of the previously developed zones including trenches, tractor cuts, roads and adits. Sampling was carried out in all of the reconditioned workings, concentrating on areas with visible graphite mineralization. Sample intervals were generally 2 metres or 5 metres. At Centro de la Cucharita 713 samples were taken, 635 from surface and 78 from the adits; results for 613 samples, including 75 from underground were included in the report (Table 4). At Temescal-Tejon, 876 samples were taken; results were only included for 221 samples (Table 5). At Curva del 25, 54 samples were included in the report (Table 6). All samples were analyzed at the laboratories of Grafito de Mexico, S.A. in Telixtlahuaca, Oaxaca. Two composites from Adit No. 2 East were sent for mineralogical testing. The results were plotted on air photos originally at 1:2000, later enlarged to 1:1000. Cross sections were produced and an updated mineral reserve was calculated.



Projection is UTM NAD 27 Zone 14

Figure 3b. 1989 Sample Compilation Locations

They once again mapped the property verifying the area is underlain by gneisses that form the Precambrian basement in the area. The gneisses show considerable variation, from quartz-feldspar gneiss to barren gneiss. The gneisses range from manganese gneiss to mica gneiss to graphite-mica gneiss to graphite gneiss. The gneisses vary both vertically and horizontally reflecting initial stratigraphy. The Cipollino marble lies with gneissic sequence and also carries graphite. Pegmatites, frequently found as dikes or small irregular bodies within the sequence, can also carry graphite.

The three main deposits are Cerro Centro de la Cucharita, Temascal Tejon and the lesser important Curva del 25.

Table 4. Summary of 1989 Sampling Cerro Centro de la Cucharita Deposit

	Location (shown on Figure 3b)	no of samples	m length	% graphite
1	Road between Al Tejon and creeks Jicara and Cucharita	58	315.14	2.77
2	Road between creeks Jicara and Cucharita	28	41.07	3.62
3	Road to creek La Cucharita Rumbo Al Campamento	24	75.85	3.15
4	Main road left bank of cut	30	64.35	3.23
5	Second bank of cut	41	137.1	3.84
6	Center section of de la Cucharita	6	69.5	3.91
7	Upper section of Rumbo NW SE	19	113.68	4.39
8	Center section of de la Cucharita	25	72.84	2.89
9	Third bank north side	69	138	2.88
10	Small cut	6	30	2.62
11	Large cut	5	10	3.57
12	Large cut (maximum)	17	34	2.43
13	Other cut	17	34	2.95
14	Other cut	7	14.00	2.22
15	Pegado Al Tiro north cut	4	8	5.26
16	Pegado Al Tiro south cut	16	32	5.40
17	South cut at adit	5	80.27	3.80
18	Adit No. 2	15	75	4.20
19	Adit No. 3	39	78	4.29
20	East section south cut at adit	7	51.23	4.32
21	Trench E west side	29	58	3.89
22	Trench E east side	13	59.15	3.58
23	Upper section north cut	9	47.4	3.03
24	East road at Trench E	6	20	4.51
25	Trench B east side	8	43.2	3.36
26	Trench B west side	9	45	3.33
27	Trench A west side	10	50	3.30
28	Trench A east side	9	45	2.97
29	Trench between Trench A and Trench B	5	25	3.50
30	Adit No. 1	21	105	3.51
31	Road leading to Adit No. 1	17	23.95	3.34
32	Lower road	14	15.06	3.92
33	Lower road leading to Al creek	30	34.7	3.14
	Number of samples	**618**		

The Cerro Centro de la Cucharita deposit is the most important and currently (1990) supplies almost all of the material to the Grafito de Mexico, S.A. processing plant. The 700 metre long by 23 metre to 80 metre wide elongate deposit lies in graphitic gneiss. The height difference between the top and bottom of the deposit ranges from 25 metres in the northwest through 40 metres in the centre to 90 metres in the northeast. The deposit strikes northwest southeast and dips 25° to 50° to the northeast. Graphite content varies from traces up to 6.50% and occurs in the form of small flakes oriented parallel to the foliation of the gneiss and disseminated throughout it. Graphite can also occur as small pockets or threads concordant with the foliation and in small fractures.

The deposit was sampled at a number of locations through a series of trenches, tractor cuts, roads, shaft pits and adits as detailed in Table 4 and shown on Figure 3b. The maps accompanying the report indicate the sampling, in some instances, was not continuous across the gneiss. This may be attributed to the active mining going on at the time of the sampling program or the lack of visible graphite mineralization with the non-sampled section.

In the northeast area, sampling area 33 indicates the graphite content ranges from 1.37% to 5.46%. The gneiss in this area is largely a very altered red yellow color with the large flake graphite, with local zones of hard granitic gneiss. Locally there is red clay cementing fragments of gneiss with graphite, yielding an almost conglomeratic texture.

Moving slightly south, a white to red relatively hard gneiss with large flake graphite ranging from 2.29% to 6.05% graphite is exposed along a 160 metre northwest-southeast oriented road (area 32). A second parallel road, leading to Adit No. 1, cuts through a compact, relatively hard red to white gneiss with visible flake graphite ranging from 2.67% to 5.22% graphite (area 31).

At trench A (areas 27 and 28), a hard to semi-hard compact gneiss was encountered ranging in grade from 2.49% to 4.01% carbon. A barren mica gneiss lies between trenches A and B and in the central portion until trench C, and area 200 metres by 20 metres (area 22 to area 28).

The graphite gneiss in this area, located toward section F-F', is red to white, compact and semi hard. The same unit is also found in exposed bands of white to light red, hard, compact gneiss that contains finer grained graphite.

Adit 1 (area 30) was driven 130 metres at S28W, perpendicularly cutting the foliation of the graphite gneiss. The adit cut 18 metres of Cipollino marble before intersecting the predominantly semi-hard, red-yellow graphite gneiss with disseminated graphite. Local layers of barren gneiss and pegmatite were noted and the last 6.5 metres were in barren gneiss. Graphite grades over 105 metres ranged from 1.46% to 5.13% averaging 3.51% graphite.

Adit 2 (area 18) was driven 170 metres southeast through a graphite gneiss, with graphite-mica gneiss over the last 3 metres. An internal shaft was sunk to a depth of 15 metres, but is flooded. Pyrite was noted in the gneiss. Graphite grades over a 75 metre sampled section ranged from 2.82% to 5.82% averaging 4.20% graphite.

Adit 3 (area 19) was driven 80 metre north, then 120 metres N47E. Intercalated graphite gneiss, graphite-mica gneiss, quartz-feldspar gneiss and Cipollino marble was cut in the first 55 metres. This was followed by 24 metres of mica gneiss, then Cipollino marble, then 13 metres of pegmatite. The final 78 metres was graphite gneiss with values ranging from 2.09% to 6.38% averaging 4.29% graphite.

Selective mining has taken place between sections F-F' and B-B', leaving small bodies of quartz-feldspar gneiss as islands containing flakes of crystalline graphite (areas 5 to 15). In the central-north area, a northwest-southeast oriented body 185 metres long by 15 metres wide by 7.2 metres thick carries abundant flake graphite that can easily be seen in hand specimen.

A southern mine cut with large flakes and grades in excess of 4% graphite lies between section G-G' and section D-D'. A series of cuts at the western side of the southern end located volumes of good graphite gneiss. (Areas 15, 16, 17 and 20).

Layers and lenses of quartz feldspar gneiss hosting disseminated crystalline graphite are found in otherwise barren gneiss on the road that leads to the El Tejon deposit at the encampment-Arroyo la Cucharita, with graphite content increasing as the mining cut is approached. From the Arroyo la Cucharita the road turns to the NW, intersecting hard to semi hard quartz feldspar gneiss with crystalline graphite, with graphite content decreasing Arroyo la Jicara is approached. North of the Arroyo la Cucharita and at the elevation of section A-A', a 50 metre tractor trench cut semi hard gneiss with large flake graphite visible in hand specimen. (Areas 1 to 4)

The Temascal – Tejon deposit appears to be the western continuation of the Cerro Centro de la Cucharita deposit and begins at the Arroyo la Jicara. A tractor cut in the north portion of the deposit intersected a zone of varying graphite content that averaged 3.07% graphite. Two hand trenches were dug in the same area: sampling in trench A North averaged 3.71% and sampling in trench E averaged 3.51% graphite. Moving south a 45 metre wide landslide covers the graphite gneiss. Details on the gneiss were not included.

Table 5. Summary of 1989 Sampling Temascal - Tejon Deposit

Location	no of samples	m length	% graphite
Unknown location	30	60	4.32
Trench D	15	30	3.51
Trench D'	6	12	3.19
Cut 6	27	54	3.61
Cut 4 (soft rock)	5	10	4.06
Cut 4 (hard and medium rock)	31	62	3.48
Trench C (soft rock)	13	26	3.07
Trench C (hard and medium rock)	30	60	3.04
Cut 3 (hard and medium rock)	32	64	3.49
Cut 3 (west side hard and medium rock)	32	64	3.51
Number of samples	**221**		

Sampling to the south of the landslide (I think?) located a zone 26 metres long averaged 3.85% graphite. Following a 48 metre barren section, the section from that point to the outer limit of the deposit averages 3.38% graphite, though values as low as 1.05% graphite were encountered in this zone. Details on the gneiss were not included.

The area west of exploration trenches located to the west of this area located hard granitic quartz-feldspar gneiss with low graphite content. Cut 2 and trench 3 intersected the same gneiss, while the areas north and south of cut 3 located semi-hard quartz feldspar gneiss averaging 3.57% and 4.56% graphite respectively. Trench C intersected hard quartz-feldspar gneiss averaging 2.83% and 3.45% graphite in the north part, but barren in the south part. Cuts 4 and 4' intersected similar gneiss at similar grades. The southern Cerro Temascal area hosts very hard gneiss with low graphite content.

Towards the west and along the Arroyo Tejon, cut 6, trenches D and D' and cut 5 test the westernmost part of the deposit. In these workings are found perhaps the richest part of the Temescal-Tejon deposit in terms of graphite content and size of flakes. A series of faults and fractures along the last section of the road that leads to Arroyo del Tejon were noted, imparting a black color to the gneiss due to the grinding of the graphite. At Arroyo del Tejon, a quartz-feldspar gneiss containing large graphite flakes averages 5.52% graphite.

The gneiss and the graphite form and content appear to be similar at Arroyo Tejon in the western part and Arroyo Jicara in the eastern part of the Temascal – Tejon deposit: semi-hard to somewhat weathered gneiss with large flakes and high graphite content that lie between 2000 and 2010 metres above sea level.

The Curva del 25 deposit lies southwest of the Temascal-Tejon deposit and is hosted in very hard granitic to quartz-feldspathic gneiss. It is 190 metres in a northwest-southeast direction and carries disseminated graphite. Five sections were measured where low grades of graphite (less than 3%) were taken, except for 4 samples of 57 that assayed more than 3%.

Table 6. Summary of 1989 Sampling Curva del 25 Deposit

Location	**no of samples**	**m length**	**% graphite**
Section 1	28	57.5	2.18
Section 2	12	60	1.64
Section 3	7	35	2.11
Section 4	7	35	1.97
Number of samples	**54**		

There have been a number of historical estimates completed for the El Tejon graphite project all completed prior to the implementation of National Instrument 43-101. The quality or reliability of the calculations vary, though in general the latest ones have more substance than the earlier ones due largely to the increasing amount on completed exploration on which each calculation is based. The summary of each calculation is shown in Table 7 and then explained in the text. The last one was completed in 1990 at the conclusion of the last round on exploration. Some of this estimate was subsequently mined during the period 1990 to 2002. Big North will carry forward with this 1990 estimate as an historic estimate and plans to complete the exploration necessary to move the historical estimate into a current resource.

Table 7. History of Historic Estimates at the El Tejon Project

		Proven		Probable		Possible	
Property	**Year**	**Tonnage**	**Grade**	**Tonnage**	**Grade**	**Tonnage**	**Grade**
Temaxcal	1967					4,300,000	
Cucharita	1967					500,000	
Telixtlahauca	1975					18,760,220	
Centro de La Cucharita	1976	1,632,808		1,211,042		2,039,149	
La Cucharita	1976	1,079,637		736,967		593,612	
El Temascal	1976	741,828		672,734		835,482	
Curve del 25	1976	850,172		583,383		207,906	
Centro de La Cucharita	1977	1,001,450	4.07	2,544,414	4.07		
Centro de La Cucharita	1983	2,704,214	4.10				
Centro de La Cucharita	1990	2,866,372	3.54	5,314,522	3.54		
Temascal - Tejon	1990	203,286	3.79	363,157	3.79		
Curve del 25	1990			375,000			

According to Pineda Ramirez and Rodriguez Cortes (1990), the 1967 estimates were disclosed in *Exploitation Project of Crystalline Graphite in the State of Oaxaca* completed for the Mineral Section of **Plan Oaxaca**. The report appears to have encompassed all the deposits in the region, not just those currently included in the El Tejon property. The main deposit, Temaxcal, appears to be the Centro de La Cucharita deposit. A gross calculation of the potential tonnage was calculated based on a zone of mineralized graphite 600 metres long by 18 metres wide by 150 metres deep. The Cucharita zone, likely the current Temascal – Tejon deposit, was calculated as a gross calculation based on a zone of mineralized gneiss 180 metres long by 60 metres wide by 15 metres deep. This 1967 estimate would not meet any of the 43-101 mineral resource categories as it does not even meet the inferred criteria.

According to Pineda Ramirez and Rodriguez Cortes (1990), the 1975 estimate was disclosed in *Geology of the Crystalline Graphite Deposits of the state of Oaxaca* for the Non-Renewable Natural Resources Council of Oaxaca. This report appears to have encompassed all of the deposits in the entire district, not just those on the El Tejon property. No details were provided on how the estimate was calculated. This 1975 estimate would not meet any of the 43-101 mineral resource categories as it does not even meet the inferred criteria.

Sanchez Bautista et al (1976) provided the next estimate. The gross volumes of graphite material were calculated utilizing the sum of the areas method, based solely on geological mapping and sampling of the trenches. The thickness for proven reserve for each section was determined by the data, the exploration trenches and the difference in elevation between the highest and lowest points the graphite appears. The thickness for probable reserves was determined through the structural data of the gneiss and the difference in elevation between the high and low points of the mineralized body. The thickness for possible reserves was determined by projecting the direction of the gneiss at depth and outlining the line perpendicular to this direction from the lowest point where the graphite is found in the section. Reserve volumes were calculated for the Centro de La Cucharita, La Cucharita, and El Temascal and Curva del 25 deposits. They then computed the weighted average grade of the 21 samples taken from the trenches, 4.07% graphite which they assigned as the grade for the reserve summary. This 1976 estimate would meet the 43-101 mineral resource inferred category for tonnage but not for grade as it is based on too few samples.

Pineda Ramirez et al (1977) provided an updated estimate the following year. Thirteen topographic geologic cross sections were constructed perpendicular to the mineralized structure. The distance between sections was subject to the form of the deposit and the location of the mine workings. Volumes were determined using the formula (A1 + A2)/2 X D X P.E. = T, where A1 and A2 represent the area of the vertical cuts of the deposits in adjacent sections, D is the horizontal distance between the sections, P.E. is 2.5 cubic metres per ton, the specific gravity and T is the resulting tonnage. The central area was then divided into five blocks for grade calculations. The sampling as outlined in Table 3 was assigned to the corresponding block and then weight averaged. The 5 blocks were then weight averaged to arrive at an average grade of 4.07% graphite. These calculations produced estimate of 1,001,450 tons of proven reserves, and 2,544,414 tons of probable reserves at a grade of 4.07% of graphite. This 1977 estimate would meet the 43-101 mineral resource inferred category.

According to Pineda Ramirez and Rodriguez Cortes (1990), the 1983 estimate was disclosed in *The Economic Geology of the Mining Exploration of the Deposit of Crystalline Graphite Located in San Francisco Telixtlahuaca, Oaxaca*. This estimate was based on the 1976 program of Sanchez et al and additional exploration work, including the subsequent excavation of three adits. There were no details provided on the calculations used to produce the estimate of 2,704,214 tons of proven reserves at a grade of 4.07% of graphite. There is not enough data provided in the summary to offer an opinion on how this estimate would relate to current resource categories.

The 1990 estimate was calculated by Pineda Ramirez and Rodriguez Cortes based on their mapping and sampling program. The Cerro Centro de la Cucharita estimate was calculated by constructing 12 geologic / topographic sections perpendicular to the general strike of the Cerro Centro de la Cucharita deposit. The distance between sections was subject to the form of the deposit and the location of the mine workings. Volumes were determined using the formula (A1 + A2)/2 X D X P.E. = T, where A1 and A2 represent the area of the vertical cuts of the deposits in adjacent sections, D is the horizontal distance between the sections, P.E. is 2.5 cubic metres per ton, the specific gravity and T is the resulting tonnage. The resulting reserves are comprised of two blocks: Block 1 to the west and Block 2 to the east divided by the area currently (1990) being mined. The proven reserves are 2,866,372; Block 1 – 1,623,747 and Block 2 – 1,242,625 tons. The probable reserves 5,314,522 tons; Block 1 – 1,772,712 tons and Block 2 – 3,541,810 tons. The sampling as outlined in Table 4 was assigned to the corresponding geologic / topographic section and then weight averaged. The 12 geologic / topographic sections were then weight averaged to arrive at an average grade of 3.54% graphite.

The Temascal – Tejon estimate was calculated by constructing 9 geologic / topographic sections perpendicular to the general strike of the Temascal-Tejon deposit. The distance between sections was subject to the form of the deposit and the location of the mine workings. The distance between sections was subject to the form of the deposit and the location of the mine workings. Volumes were determined using the formula (A1 + A2)/2 X D X P.E. = T, where A1 and A2 represent the area of the vertical cuts of the deposits in adjacent sections, D is the horizontal distance between the sections, P.E. is 2.5 cubic metres per ton, the specific gravity and T is the resulting tonnage. The proven reserves are 203,286 tons. The probable reserves are 363,157 tons. The sampling as outlined in Table 4 was assigned to the corresponding geologic / topographic section and then weight averaged. The 9 geologic / topographic sections were then weight averaged to arrive at an average grade of 3.79% graphite.

Geologic / topographic sections were not constructed for the Curva del 25 estimate. Instead, the estimate was established by multiplying the length of graphite-bearing gneiss outcrop by the average width and by the thickness to obtain a volume in cubic meters; then multiplying that number by the specific gravity to obtain the tonnage. The probable reserves are 375,000 tons. The grade was determined by weighted averaging of the sections sampled as shown in Table 5.

The proven and possible reserve categories utilized by Pineda Ramirez and Rodriguez Cortes in their 1990 estimates appear to be similar to the definitions of indicated mineral resource and an inferred mineral resource respectively. The sampling is too far spaced and there was no drilling included to verify the third dimension. In addition, some of this historic resource was mined between 1990 and 2003. Based on finished product numbers from the United States Bureau of Mines Annual Minerals Yearbook and supplied by Grafito de Mexico, detailed in Table 8, this 1990-2003 mined tonnage is estimated at 340,000 to 450,000 tonnes.

In order to upgrade or verify the 1990 historical estimates as current mineral resources, Big North Graphite Corp. will need to complete a detailed sampling program on the existing workings and undertake a reverse circulation or diamond drilling program over the deposit at a spacing of 100 metres by 50 metres to establish the continuity of mineralization at depth.

A qualified person has not done sufficient work to classify this historical estimate as current mineral resources or mineral reserves. Big North Graphite Corp. is not treating the historical estimate as current mineral resources or mineral reserves.

The EL Tejon property was placed in production in 1980 and ran until 2002, when production ceased due to a dramatic drop in flake graphite prices when the Chinese flooded the market. Table 8 shows the production of finished product from the United States Bureau of Mines Annual Minerals Yearbook and the production (P) and/or sales (S) of finished product from the Grafito de Mexico S.A. (G de M) records. The records are incomplete and Big North personnel are attempting to locate missing data.

Table 8. Annual El Tejon Concentrate Production in Tonnes

	Tonnage Final Product				From USBM Yearbook				From G de M (P or S)		
		Production	Sales		tonnage produced if grade was				tonnage produced if grade was		
Year	USBM	G de M	G de M		3% Cg	3.5% Cg	4% Cg		3% Cg	3.5% Cg	4% Cg
1980	384				12,800	10,971	9,600				
1981	1,270				42,333	36,286	31,750				
1982	1,989				66,300	56,829	49,725				
1983	1,828				60,933	52,229	45,700				
1984	1,855				61,833	53,000	46,375				
1985	2,105				70,167	60,143	52,625				
1986	2,026	1,838			67,533	57,886	50,650		61,262	52,510	45,947
1987	1,787	1,798			59,567	51,057	44,675		59,935	51,372	44,951
1988	1,735	1,729			57,833	49,571	43,375		57,623	49,391	43,217
1989	1,942	1,942			64,733	55,486	48,550		64,721	55,475	48,540
1990	2,370	2,365			79,000	67,714	59,250		78,819	67,559	59,114
1991	1,940	2,043			64,667	55,429	48,500		68,093	58,366	51,070
1992	985	1,174			32,833	28,143	24,625		39,122	33,533	29,341
1993	960	630			32,000	27,429	24,000		20,990	17,992	15,743
1994	960	391	672		32,000	27,429	24,000		13,021	11,161	9,766
1995	1,450	520	474		48,333	41,429	36,250		17,322	14,847	12,991
1996	1,145		857		38,167	32,714	28,625		28,567	24,486	21,425
1997	1,275	928	837		42,500	36,429	31,875		30,923	26,506	23,193
1998	568		586		18,933	16,229	14,200		19,533	16,743	14,650
1999			769						25,633	21,971	19,225
2000			745						24,833	21,286	18,625
2001			347						11,567	9,914	8,675
2002			101						3,367	2,886	2,525
Totals					**952,467**	**816,400**	**714,350**		**625,330**	**535,997**	**468,998**
Full					**1,017,867**	**872,457**	**763,400**				
+1990	**USBM and G de M**				**453,833**	**389,000**	**340,375**				

The USBM data comes from the Graphite Chapter in the Annual Mineral Yearbook of the United States Bureau of Mines and United Stated Geological Survey. The production is reported as tonnes of finished flake graphite product from Mexico. El Tejon has been the only crystalline graphite producer in Mexico so the Mexican production is from the El Tejon property. Production date was provided for the period 1980 to 1998. After 1998, the USBM stopped separating flake graphite from the total Mexican graphite production.

Tonnes mined or milled were not recorded. According to Grafito de Mexico personnel, 97 percent of the material mined was milled, with the mine running only 4 hours a day to supply the mill feed. During the property visit, no large waste piles were noted on the property, appearing to support this 97% observation.

In order to obtain an estimate of tonnage milled and mined the annual production of finished product was used as a starting point. Since grades milled do not appear to have been kept either, a range of grades at 3% Cg, 3.5% Cg and 4% Cg were utilized to obtain a tonnage of material that would need to have been milled to produce the recorded tonnage of finished product. The grades are supported by the historic sampling at 3.5% Cg to 4% Cg. Since all material went through the mill, including the low grade or barren zones noted in the various historic exploration programs, 3% Cg was also used in the calculations.

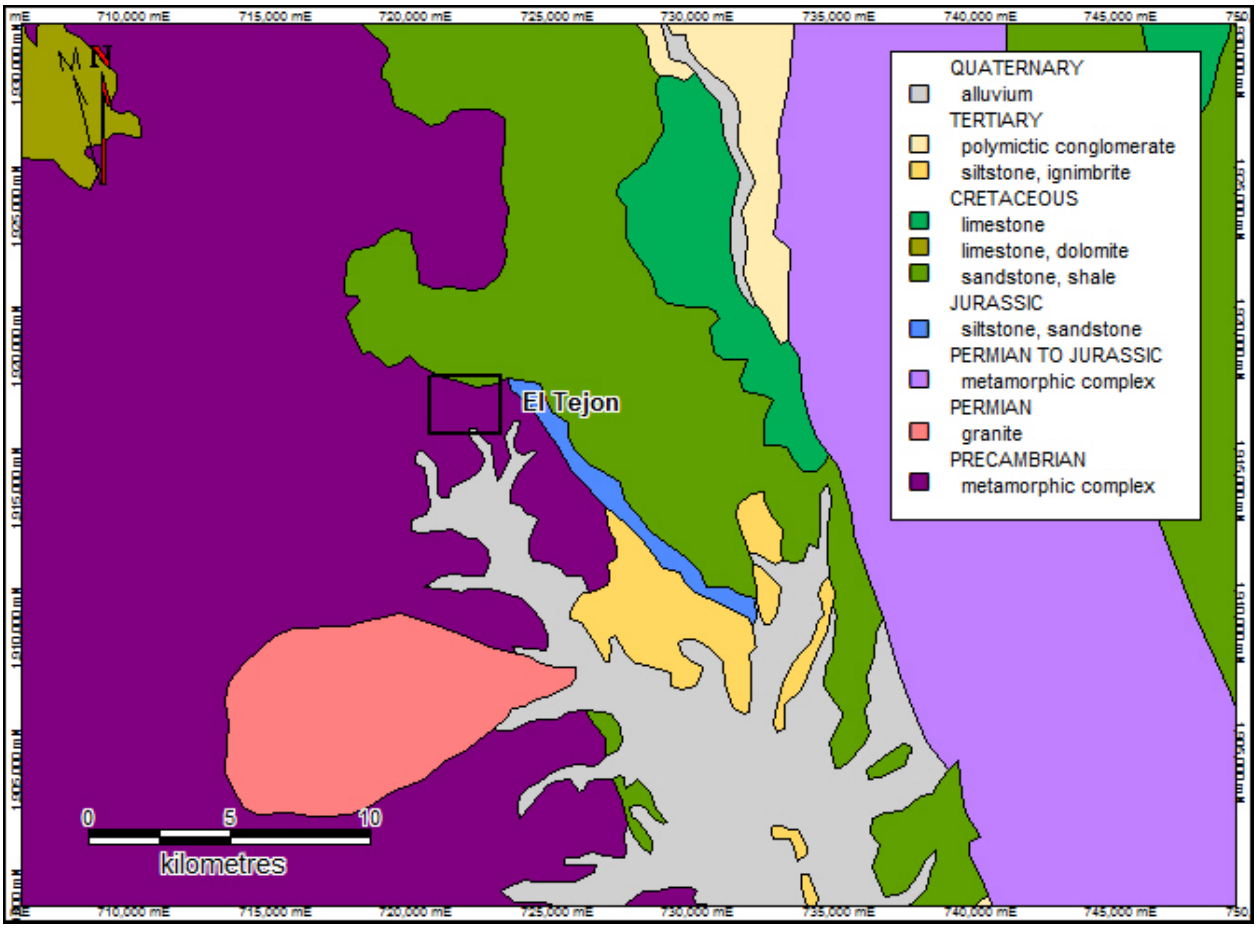
Plate 1. Cerro Centro de la Cucharita Open Pit

Main pit from east end looking west

Upper East Pit

Three sets of totals were calculated at the bottom of Table 8. The first total line shows the estimated tonnages based on the USBM numbers for the years data was supplied. The first total line also shows the estimate tonnages based on the Grafito de Mexico production (P) numbers, with the sales numbers (S) included for the years there were no production numbers supplied (1996 and 1999-2002). The second total line, the full line, supplemented the USBM production figures with numbers from the Grafito de Mexico data for the missing years (1999-2002) to a arrive at a total production number. The third total line (+1990) is the production for 1990 onward from the USBM data, supplemented by the Grafito de Mexico data for the missing years. The size of the workings noted during the property visit suggests a total production in the order of 1,000,000 tonnes is reasonable.

The El Tejon Graphite Project area lies on the Oaxaca E14-9 1:250,000 map sheet (Servico Geologico Mexicano, 2000) within the Oaxaca Terrane of the Sierra Madre del Sur Province of southern Mexico. The following regional geological summary is taken from the notes accompanying the map.



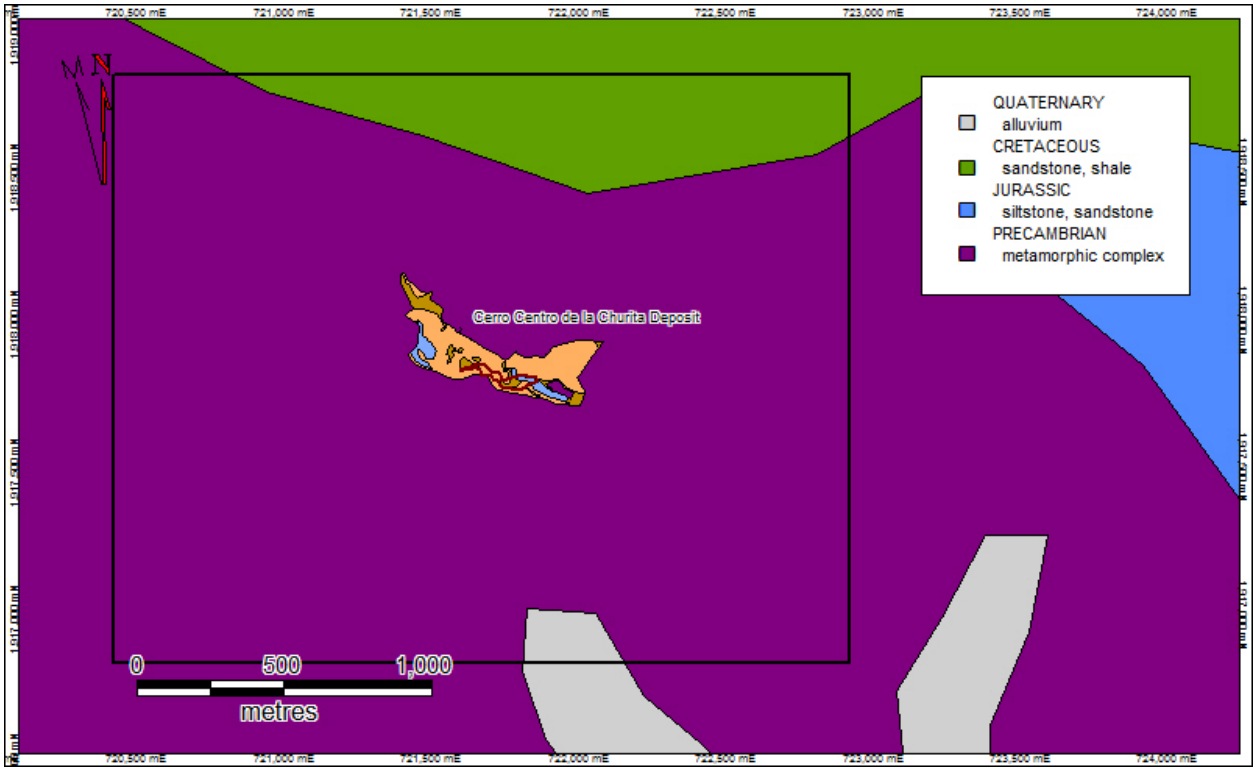
Projection is UTM NAD 27 Zone 14

Figure 4. Regional Geology

The Oaxaca Terrane is bounded tectonically on the west by the Mixteco Terrane and on the east by the Maya Terrane. Oaxaca Terrane basement consists of the 1.0 to 1.2 billion year old granulite facies Oaxaqueno Complex: composed of charnockite, orthogneiss, paragneiss, syenite gneiss anorthosite gneiss, nelsonite, migmatite, and marble. The complex is overlain by limestones, shales and sandstones of the Cambrian-Ordovician Tinu Formation in turn discordantly overlain by a sequence of shale, sandstone and limestone of the Mississippian-Permian Ixtalpetec Formation and Pennsylvanian-Permian Santiago Formation. Permian-Triassic Yododene Formation red conglomerates over the earlier rocks. Mid-Jurassic Todos Santos Formation red beds discordantly overlay the conglomerates. The overlying Cretaceous stratigraphy begins with discordant sandstones and shales with calcareous lenses of the Jaltepetongo Formation, followed by concordant limestones with bands of black flint of the Yushe Formation, which in turn is overlain by limestones and shales of the Yucunama Formation. An intrusive Oligocene granodiorite outcrops throughout the area.

A north south trending, 130 kilometre long by 10 to 15 kilometre wide structural complex, the Aloapan Mylonitic Complex, forms the boundary between the Oaxaca and Maya Terranes. The Aloapan Mylonitic Complex is slip fault bounded on the east by the Siempre Viva Fault; normal fault bounded on the west by the Oaxaca Fault; and normal fault bounded on the south by the Donaji Fault. The Oaxaca Fault originates from the Cenozoic reactivation of an ancient Mesozoic thrust. The structures of the Oaxaca terrane are folds with a northwest – southeast orientation, and normal faults with northwest – southeast orientation, including the Oaxaca and Tomellin faults which form the Oaxaca graben.

The non-metallic mineral Telixtlahuaca Mining District lies within the Oaxaca Terrane and hosts disseminated crystalline graphite deposits containing values varying from 4% to 8% in paragneiss.



Projection is UTM NAD 27 Zone 14

Figure 5. Property Geology

Property Geology (Summarized from Pinada Ramirez and Cortes Rodrigues, 1990)

The property itself has not been mapped. All of the exploration and mapping has been confined to a 800 metre east west by 400 metre north south area that host the main Cerro Centro de la Cucharita deposit, with additional local mapping at the Temascal – Tejon and Curva del 25 deposits. The mapping was completed at 1:500 scale and subsequent mining has wiped out most of the markers making it difficult to orient the mapping within the present claim block. The GPS surveying and sampling completed by the author has outlined the pit as it currently stands, so the property geology map as well as the mineralization map basically shows the location of the open pit and the location of the adits. A section of adit No. 2 has been taken out as mining has progressed.

The oldest and most widely exposed rocks in the El Tejon property area are the 920 to 1,100 million year old gneisses that form the Precambrian crystalline basement. The gneisses vary in composition from quartz-feldspar gneiss and barren gneiss to manganese gneiss, mica gneiss, graphite-mica gneiss, and graphite gneiss. The gneisses also vary both along and across stratigraphy.

The quartz-feldspar gneiss or barren gneiss covers the majority of the property area and delimits the mineralized graphite gneiss to both the north and the south. It is white to light yellow in color and shows clay weathering and oxidization between the foliation and fracture planes. This gneiss is slightly compact and has a well-defined foliation.

The mica gneiss appears to be a more micaceous variation of the quartz-feldspar gneiss as it lies with the larger quartz feldspar gneiss body. The mica gneiss has abundant muscovite (white mica) that sometimes has a green color, probably owing to alteration or perhaps because it contains some radioactive component.

Manganese gneiss is not very abundant and outcrops locally in the southern part of the deposit. The manganese gneiss is altered and displays foliation parallel to the quartz-feldspar gneiss foliation.

The graphite mica gneiss lies in northern and western portion of the deposit. The mica, generally biotite or muscovite occasionally has a greenish color. The graphite is disseminated in threads or thin veinlets.

The graphite gneiss outcrops along the east west slope covering an area of 51,100 square metres. The gneiss displays a medium grained granoblastic texture and varies in color from brown to brown-red. Foliation has been measured at 030^{o}. The gneiss is generally altered and crumbly with graphite common to the unaltered sections. The graphite parallels foliation, forming small hexagonal crystal flakes elongated up to 6 millimetres in the direction of foliation. In some areas, the graphite forms small groupings of lamellae (scales or plates) of larger dimensions filling in fractures.

The Cipollino marble occurs within the quartz-feldspar gneiss, forming layers or lenses concordant with foliation. The compact white marble displays a granoblastic texture and is composed principally of calcite, disseminated mica, garnet, amphibole, graphite, and some quartz. It outcrops on the road to the deposit and in adit No. 3.

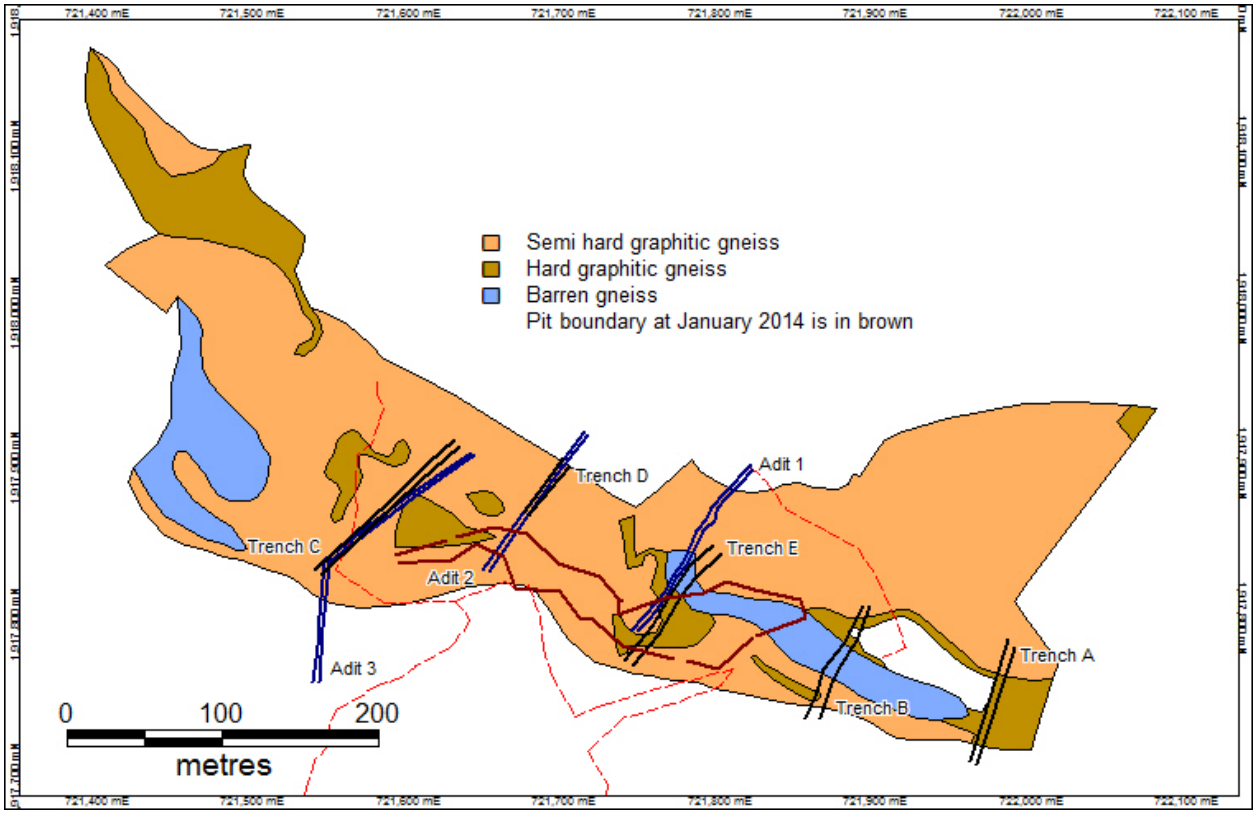
Pegmatites have been mapped as small remnants within the metamorphic rocks. They consist principally of quartz with a lesser amount of feldspar and mica and local laminations of graphite.

Ultramafic igneous rocks, assumed to be early Paleozoic, intrude the gneisses in the area. They appear to represent various periods of magmatic activity and are possibly related to the pegmatites. The rock, heavy in hand specimen, is black to gray-green in color with a phaneritic texture. Crystals are several millimetres to 2 centimetres and are principally amphibole with some pyroxene and a small amount of disseminated pyrrhotite.

Triassic sediments discordantly locally overlie the gneisses in the northern part of the deposit, consisting of 20 to 30 centimetre thick interstratified layers of sandstone and conglomerate. They have a reddish color, typical of the Triassic Red Beds. Clasts of gneiss cemented by carbonaceous clay are found within the Red Bed sediments.

In the lower parts of the Cerro Centro de la Cucharita, Quaternary alluvium deposits have accumulated at the foot of the mountain. They form small plains composed of fragments of the gneisses, igneous rocks and Red Beds. The largest fragments are cobbles originating from the red beds and occasionally from the limestone.

The predominant regional structural pattern consists of a series of reverse faults with a predominant SE-NE orientation forming a series of blocks. In the property area, the faults run along the arroyos and rivers. The foliation within the gneiss has a general northeast-southwest orientation, striking 25° to 50°, while the limestone and red beds strike to the northeast with dips varying between 15° and 60°. Within the adits, small strike slip faults related to possible intrusions of the pegmatites were noted.



Projection is UTM NAD 27 Zone 14

Figure 6. Mineralization

Mineralization

The El Tejon concession is being explored for crystalline flake graphite. There are three deposits on the concession; Cerro Centro de la Cucharita, Temascal Tejon and Curvas del 25. Laminations of crystalline graphite are hosted in the Precambrian gneisses, generally parallel to the foliation, and locally with pegmatites and marble with the gneisses.

The most important of the three deposits is the Cerro Centro de la Cucharita. It forms the backbone of the Grafito de Mexico, S.A. operation, supplying the mill feed for the plant. According to Grafito de Mexico it was in production from 1980 to 2002. The Mexican government initiated exploration of the deposit in the 1970's with the goal of blocking out sufficient reserves to place the property into production to provide jobs to the local economy. Exploration consisted of programs of mapping, sampling, trenching, tractor cuts, shafts or pits, adits and very limited drilling. Grafito de Mexico S.A. was the result.

The Cerro Centro de la Cucharita deposit is an elongate 700 metres long by 23 metres to 80 metres wide ore body lying in graphitic gneiss. The height difference between the top and bottom of the deposit ranges from 25 metres in the northwest through 40 metres in the centre to 90 metres in the northeast. The deposit strikes northwest southeast and dips 25^{o} to 50^{o} to the northeast. Graphite content varies from traces up to 6.50% and occurs in the form of small laminations (sheets or scales) oriented parallel to the foliation of the gneiss and disseminated throughout it. Graphite can also occur as small pockets or threads concordant with the foliation and in small fractures.

A compilation of incomplete production records from 1980 to 2002 suggests total production from the Cerro Centro de la Cucharita deposit is in the range of 760,000 to 1,000,000 tonnes. A semi-detailed sampling program completed in 1989 consisted of 713 samples across the entire graphitic gneiss horizon suggests a grade in the order of 3.5% Cg.

The 1989 program resulted in the calculation of an historic estimate for the Cerro Centro de la Cucharita deposit. Pineda Ramirez and Rodrigues Cortes (1990) calculated a historic proven reserve of 2,866,372 tonnes and a probable historic reserve of 5,314,522 tonnes at an average grade of 3.54% graphite carbon. Subsequent production suggests 350,000 to 450,000 tonnes of the historic proven reserve was mined. The historic estimate is relevant as it indicates graphite mineralization does occur in the Cerro Centro de la Cucharita deposit. The tonnage of material is reliable while the grade needs further definition as the 1989 maps showing the individual sample locations indicate gaps within the sampled section. The average grade of the 16 January 2014 random verification samples was 3.89% graphite carbon, suggesting a 3.54% Cg grade may be reasonable.

The 1990 estimate was calculated by Pineda Ramirez and Rodriguez Cortes based on their mapping and sampling program. The Cerro Centro de la Cucharita estimate was calculated by constructing 12 geologic / topographic sections perpendicular to the general strike of the Cerro Centro de la Cucharita deposit. The distance between sections was subject to the form of the deposit and the location of the mine workings. Volumes were determined using the formula (A1 + A2)/2 X D X P.E. = T, where A1 and A2 represent the area of the vertical cuts of the deposits in adjacent sections, D is the horizontal distance between the sections, P.E. is 2.5 cubic metres per ton, the specific gravity and T is the resulting tonnage.

The proven and possible reserve categories utilized by Pineda Ramirez and Rodriguez Cortes in their 1990 estimates appear to be similar to the definitions of indicated mineral resource and an inferred mineral resource respectively. However, the sampling is too far spaced and there are gaps in the sampled sections that need to be explained. In addition, there was no drilling included to verify the third dimension.

In order to upgrade or verify the 1990 historical estimates as current mineral resources, Big North Graphite Corp. will need to complete a detailed sampling program on the existing workings and undertake a reverse circulation or diamond drilling program over the deposit at a spacing of 100 metres by 50 metres to establish the continuity of mineralization at depth.

A qualified person has not done sufficient work to classify this historical estimate as current mineral resources or mineral reserves. Big North Graphite Corp. is not treating the historical estimate as current mineral resources or mineral reserves.

DEPOSIT TYPES

The EL Tejon Project is being explored for crystalline flake graphite deposits. The following summary is condensed from British Columbia Ore Deposit Models (Simandl and Kenan, 1997).

Disseminated flakes graphite deposits are commonly hosted by porphyroblastic and granoblastic marbles, paragneisses and quartzites. Alumina-rich paragneisses and marbles in upper amphibolite or granulite grade metamorphic terrains are the most favourable host rocks. Highest grades are commonly associated with rocks located at the contacts between marbles and paragneisses and deposits are thickest within fold crests. Minor feldspathic intrusions, pegmatites and iron formations also contain disseminated flake graphite.

Crystalline flake graphite deposits may be found in any setting with favourable paleo-environment for accumulation and preservation of organic materials, such as intracratonic or continental margin-type basins. The deposits are found in metasedimentary belts of granulite or upper amphibolite facies invaded by igneous rocks. Most deposits are Precambrian in age, but they could be any age.

Low grade, large tonnage crystalline flake graphite deposits are typically stratabound and mainly hosted by paragneisses. Higher grade portions of these deposits are commonly located in fold crests; along paragneiss-marble, quartzite-marble and quartzite-paragneiss contacts; or along other zones that acted as channels for retrograde metamorphic fluids.

Low-grade, stratabound and stratiform deposits are believed to be a product of graphitization of the organic material within pre-metamorphic protolith (carbonates and shales). The crystallinity of graphite is linked to the degree of metamorphism. Higher grade portions of these deposits are usually structurally controlled, and were probably enriched during the retrograde phase of the regional or contact metamorphism. Late graphite precipitation (enrichment) may have been triggered by internal or external buffering or fluid mixing.

Crystalline flake graphite deposits are stratiform lens-shaped or saddle-shaped. Individual, economically significant deposits are several metres to tens of metres thick and hundreds of metres in strike length. Texturally, they are marked by strong foliation, schistosity and lepidoblastic texture in paragneiss and schist and granoblastic, equigranular or porphyroblastic textures in marbles.

Host rocks typically include: marbles, paragneisses, quartzites, magnetite-graphite iron formations, clinopyroxenites, amphibolites and pegmatites. Associated lithologies are orthogneisses, charnockites, orthopyroxenites, amphibolites, granulites and variety of intrusive rocks.

The ore mineralogy is crystalline flake graphite ± microcrystalline graphite. Gangue mineralogy in carbonate-hosted graphite deposits include: calcite, clinopyroxene, pyrite and other sulphides ± dolomite ± anorthite ± chlorite ± clinozoisite ± zoisite ± garnet. Gangue mineralogy in paragneiss-hosted graphite deposits include: feldspar, quartz, biotite, ± clinopyroxene ± garnet ± sillimanite ± kyanite ± sulphides ± clinozoisite ± scapolite ± secondary gypsum. Alteration mineralogy includes: chlorite, prehnite, zoisite and clinozoisite in porphyroblastic marbles.

Crystalline flake graphite deposits commonly form clusters. Overall quality of graphite flake increases with the intensity of regional metamorphism. Metasedimentary rocks of upper amphibolite or granulite facies represent the best exploration ground. Traces of graphite within a metasedimentary sequence indicate that the oxidation-reduction conditions were favourable for the preservation of graphite deposits. High-grade ores are associated with fold crests and contacts between adjacent lithological units. In some regions, blue quartz is found in close spatial association with crystalline-flake graphite deposits and could be considered as an empirical indirect indicator of favourable environment for graphite exploration. Geophysical exploration methods are best in favourable terranes: airborne EM, ground VLF and other EM methods. Induced polarisation, applied potential and self potential are also effective, though IP is realistically competitive only on a local scale. Geochemical exploration techniques are much less useful, limited to searching for enhanced graphite concentrations in residual soils and stream beds.

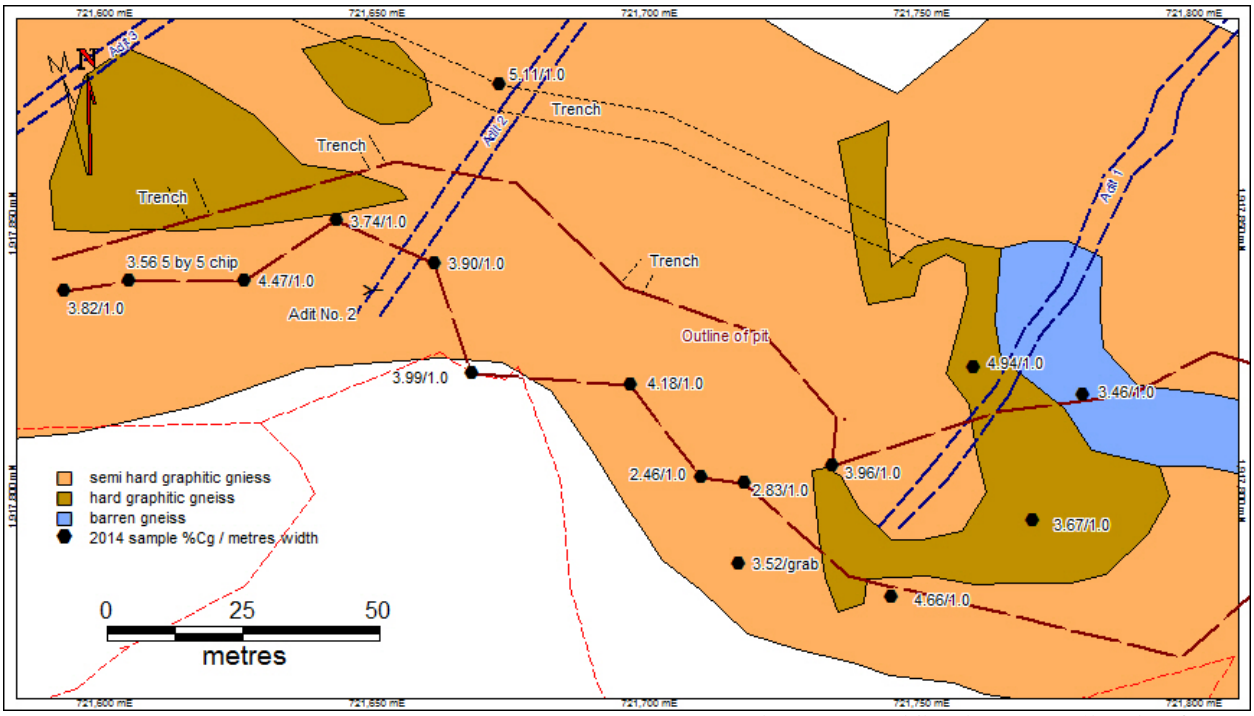
The mean size of known world-wide crystalline flake graphite deposits is 2.4 million tonnes with a mean grade of 9.0%. Depending on market conditions, large deposits containing high proportions of coarse flakes, which can be easily liberated, may be economic with grades as low as 4%.

Price of the commercial concentrate is determined by flake size, degree of crystallinity (toughness), graphitic carbon content, ash content and type of the impurities. Crystalline flake graphite is commonly chemically-and heat-treated to enhance its properties. Depending on the applications, the most common limiting technical parameters are the carbon content, the diameter of the graphite flakes, the degree of crystallinity (which is related to the flake toughness), the type of impurities and the ash content. Metallurgical and consumer tests are therefore required to market flake graphite.

Crystalline flake graphite is used in refractors, lubricants, brake linings, foundry molds and dressings, crucibles, electrodes, pencils and others. Graphite use in non-traditional applications, such as expanded graphite and graphite foils, is increasing, while the demand for use in refractors is highly cyclical.

EXPLORATION

Big North Graphite Corp. has not undertaken any exploration on the El Tejon Project. The author took 16 verification samples during his property visit. Ten samples were taken at varying lateral intervals along the face of the main pit. Four samples were taken at varying intervals along the walls of the upper pit. One sample was taken from the upper cut behind the main pit. One sample was taken from the harder blocks lying within the main pit. The samples descriptions and results are shown in Table 9 and Figure 7. All samples taken were 1 metre chip samples down the face of the pits or cuts with the exception of 26155, which was a series of chips from a 5 metre by 5 metre area on the face of the pit and 26169 which was a grab from the blocks lying in the pit.



Projection is UTM NAD 27 Zone 14

Figure 7. Verification Sampling in % Cg

The purpose of the sampling was to confirm the presence of graphite within the pit. Since the face varies from 15 to 25 metres in height, the sampling was confined to the lower accessible portion of the face. The ten samples from the main pit were spaced roughly equidistance along the length of the face. The four samples from the upper pit were spaced similarly.

At each location sufficient material was taken over a one metre vertical interval to half fill an 8 by 13 poly sample bag, roughly 2 to 4 kilograms. The sample location was taken with a Garmin GPS 60 global positioning system unit set to record in the datum of NAD 83. El Tejon lies in zone 14. A pre-numbered assay ticket was placed in the sample bag which was then sealed with a zap strap.

The author feels the samples are representative of the material yet to be mined at Cerro Centro De La Cucharita zone at El Tejon. The face is for the most part oxidized and dirty, so little if any sample bias is represented in the samples.

Table 9. 2014 Verification Sampling Results

Sample No.	Description	Location	Width	% Cg
26154	weathered blocky gneiss FeOx	main pit	1 metre	3.82
26155	weathered blocky gneiss FeOx	main pit	5m by 5 chip	3.56
26156	weathered sandy schist	main pit	1 metre	4.47
26157	broken sandy schist FeOx	main pit	1 metre	3.74
26158	weathered blocky gneiss FeOx	main pit	1 metre	3.90
26159	harder massive gneiss	main pit	1 metre	3.99
26160	harder blocky gneiss FeOx	main pit	1 metre	4.18
26161	broken sandy schist FeOx	main pit	1 metre	2.46
26162	weathered blocky gneiss FeOx	main pit	1 metre	2.83
26163	harder blocky gneiss FeOx	main pit	1 metre	3.96
26164	broken sandy schist FeOx	cut on top	1 metre	5.11
26165	weathered blocky gneiss FeOx	upper pit	1 metre	3.46
26166	black horizon in gneiss	upper pit	1 metre	4.94
26167	blocky sandy gneiss FeOx	upper pit	1 metre	3.67
26168	blocky gneiss little FeOx different	upper pit	1 metre	4.66
26169	grab from mined boulders	main pit	grab	3.52

The sample results (Table 9) show the graphite appears to be spread throughout the area of the workings, supporting the 1977 and 1989 sampling programs. As discussed above, there was likely some error in the rectification process that brought the 1989 maps into the MapInfo Discover GIS package due to the lack of accurate control points. This explains why sample 26165 assayed 3.46% Cg over 1 metre plots within the barren gneiss and why the edge of the pit and sample 26159 (3.99% Cg over 1 metre plot outside the boundary of the gneiss. The 1989 map could be shifted 25 metres or from its actual location on the ground.

The arithmetic average of the 16 samples is 3.89% Cg which appears to support the 3.54% Cg average grade of the 1989 sampling program. The sampling also suggests the graphite is relatively consistent despite variations in lithological composition of the gneiss.

DRILLING

The only drilling completed in the El Tejon property were the three holes completed in 1976. According to Sanchez Bautista et al (1976) three holes were completed in the eastern part of the Centro de la Cucharita deposit in an effort to determine the thickness of the weathered gneiss. Hole one, collared in trench number 2, ran 88 metres on an azimuth of S30W (210°) at -60°. The hole alternated between layers of weathered and unweathered rock. Hole two was drilled from the same location on the same azimuth at -45°. The bit hit bad ground at 18 metres and was stopped. Hole three was collared 75 metres to the southwest of hole 1 at -90°. Again the hole was stopped at 18 metres due to bad ground. There is no plan showing the location of holes, no drill logs, no assay data and no core.

SAMPLE PREPARATION, ANALYSIS AND SECURITY

All rock samples were taken by the author or supervised by the author. They were packed into two rice bags and zap strapped by the author. The two rice bags were delivered to DHL Courier in Oaxaca by a representative of Grafito de Mexico S.A. as the author's plane left first thing Monday morning and DHL was not open on Sunday. DHL delivered the samples to ALS Geochemistry – Guadalajara, in Guadalajara Mexico. The samples were prepared in Guadalajara and then shipped to Vancouver for analysis at the ALS Minerals laboratory in North Vancouver, British Columbia. ALS Minerals is an ISO 9001L:2008 certified lab and is independent of Big North Graphite Corp. and the property vendor.

ALS's sample preparation procedures for the graphite samples are one kilogram of each rock sample is crushed to the point where 70% passes through 10 mesh. A 250 gram sub-sample is pulverized on a ring mill pulverizer to the point where 85% passes through 200 mesh. The sub-sample is rolled, homogenized and bagged in a pre-numbered bag.

Each sample is then analyzed using C-IR I 8 by Leco. A 0.1g sample is leached with dilute hydrochloric acid to remove Inorganic carbon. After filtering, washing and drying, the remaining sample residue is roasted at 425°C to remove organic carbon. The roasted residue is analysed for Carbon - High temperature LECO furnace with infra-red detection.

Big North did not insert its own standards, blanks and duplicates into the sample sequences for this sampling program. ALS inserted standard reference materials through the lab handling process and performed one repeat for its internal quality control assessment. Results are entered and printed along with quality control data (repeats and standards). The data is emailed to the client. The ALS standards and the one repeat analysis performed well.

The author feels the sample preparation, security and analytical procedures were adequate for the examination program completed by the author for Big North Graphite Corp.

DATA VERIFICATION

The author has verified the data to the best of his ability. He reviewed the available literature on the property. He has no way of verifying the historic assay results as the samples pulps are not available. For the most part, assay certificates were not available. However, the subsequent mining of part of the area historically sampled appears to have substantiated the historic sampling.

The author examined the property and the mill during a three day site visit. He examined the surface workings. He took 16 samples throughout the workings to confirm the presence of graphite on the property. He reviewed the historic production from the property as recorded in the United States Geological Survey Minerals Yearbook Annual Chapter on Graphite along with the production records provided by Grafito de Mexico.

The author feels the data as presented in adequate for the purposes used in the technical report.

MINERAL PROCESSING AND METALLURGICAL TESTING

Metallurgical testing was completed in 1976 (Espinosa de Leon et al, 1976). Twenty one samples from the 1976 exploration program were submitted to the Comision de Fomento Minero in Mexcio City. The purpose was to study the characteristics of the minerals to allow the design of the eventual processing plant.

A macroscopic study found the rock was a gneiss comprised of quartz feldspars, mica, limonite, clay and graphite. The spectrographic analysis noted the elemental composition was +10% Si, 1% to 10% Fe and Al, 0.1% to 1% Mg, Ca, Ba, Na and K, 0.01% to 0.1% Mn, Ti, Ni, Sr, Zn, Pb and Cu and <0.01% V. The Xray Diffraction study not quartz was the major component, medium components were feldspar and graphite and minor components were montmorillonite and mica. The quantitative chemical analysis returned the following values: 4.25% C, 74.28% SiO_2, 4.84% Al_2O_3, 5.40% Fe, 1.76% MgO, 1.40% CaO, 1.68% K_2O, 0.40% Na_2O, 0.57% P_2O_5 and 0.04% Ba. The petrography showed a granoblastic texture consisting of: quartz, orthoclase, oliogclase, graphite, muscovite, biotite altered to chlorite, perthite, apatite, lionite, and clay minerals. Mineralogical study noted the graphite crystals are elongated in the direction of banding. Gangue minerals consist of: quartz, feldspars, chlorite, muscovite, clay, limonite, calcite and apatite.

Table 10. Grinding Liberation Results

		% Graphite		% Liberation	
Mesh Size	**Weight %**	**Analysis**	**Distribution**	**Relative**	**Total**
-100+150	32.6	3.5	28.6	71.3	20.4
-150+200	17.4	4.3	18.3	78.6	14.6
-200	50.0	4.3	53.1	82.8	44.0
	100		100		79.0
Calculated		4.03			

The material was ground to -100 mesh and classified by -100 mesh, -150 mesh and -200 mesh. This test found the graphite mineral is crystalline graphite. The testing suggests flotation is best recovery technique, with grinding to -100 mesh as the -200 mesh results indicated 82.8% of the graphite was liberated.

Plate 2. El Tejon Processing Plant

Floatation circuits

Bagging operation

Further tests were conducted to determine the parameters of the processing plant. The authors noted that very little of the material was +8 inch making it unfeasible to obtain the work index for titration. The equipment used for the physical tests were a 3 inch by 4 inch grinder with balls weighing 5.956 kilograms and a mineral load of 502 grams. A series of flotation tests undertaken to test the purity of the concentrate found purity is directly related to the fineness of the grinding. The testing also showed that fine grinding has only a low impact on the graphite, but a high impact on the groundmass.

The study concluded the mineral should be floated in a primary operation with grinding to -48 mesh. The material should be reground to -100 mesh and floated a 6:1 dilution. This will produce a concentrate of 96.3% graphite.

The 1976 testing appears to have been representative of the graphite gneiss ore body as it resulted in the construction of the processing plant and production from the property. The study did not point out any factors or deleterious elements that could have significant impact on potential economic extraction.

MINERAL RESOURCES AND MINERAL RESERVE ESTIMATES

There are no current mineral reserves or mineral resources on the EL Tejon Project.

ADJACENT PROPERTIES

This technical report is not relying on data from adjacent properties.

OTHER RELEVANT DATA AND INFORMATION

There is no additional relevant data or information known that is not disclosed on the EL Tejon Project.

INTERPRETATION AND CONCLUSIONS

The property visit and compilation of available geological data and historic production data from the El Tejon crystalline graphite project indicates Big North should proceed with an exploration program to move the historic resource into a current resource category and proceed with a development program to allow recommencement of production from the El Tejon property.

The literature review in conjunction with the property visit indicates to the author the body of graphitic gneiss described in the literature is present on the property and appears to be fairly consistently mineralized with flake graphite.

The 1989 program resulted in the calculation of an historic estimate for the Cerro Centro de la Cucharita deposit. Pineda Ramirez and Rodrigues Cortes (1990) calculated a historic proven reserve of 2,866,372 tonnes and a probable historic reserve of 5,314,522 tonnes at an average grade of 3.54% graphite carbon. Subsequent production suggests 350,000 to 450,000 tonnes of the historic proven reserve was mined. The historic estimate is relevant as it indicates graphite mineralization does occur in the Cerro Centro de la Cucharita deposit. The tonnage of material is reliable while the grade needs further definition as the 1989 maps showing the individual sample locations indicate gaps within the sampled section. The average grade of the 16 January 2014 random verification samples was 3.89% graphite carbon, suggesting a 3.54% Cg grade may be reasonable.

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The proven and possible reserve categories utilized by Pineda Ramirez and Rodriguez Cortes in their 1990 estimates appear to be similar to the definitions of indicated mineral resource and an inferred mineral resource respectively. However, the sampling is too far spaced and there are gaps in the sampled sections that need to be explained. In addition, there was no drilling included to verify the third dimension.

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A qualified person has not done sufficient work to classify this historical estimate as current mineral resources or mineral reserves. Big North Graphite Corp. is not treating the historical estimate as current mineral resources or mineral reserves.

The 1989 sampling, reported in Pineda Ramirez and Rodrigues Cortes (1990) was used to calculate the historic estimate. Their data, shown in Table 4 and Figure 7b, indicates sampling in some of the sections was not complete through the sampled section, for example Area 7 the upper section of the Rumbo cut NW SE, where 19 samples for an recorded sample length of 113.7 metres actually covered a section length of 221 metres. This suggests 107 metres of the section length was not sampled. The reason is unknown and may be due to a lack of access due to active mining or may be due to lack of visible graphite.

The volume of final product combined with the current size of the active workings suggests lack of access may be the case. According to Grafito de Mexico personnel 97% of the material mined went through the mill, further supporting this observation. The lack of waste dumps on the property supports the Grafito de Mexico statement and further supports lack of access as the reason for the sampling gaps. Finally, the 2014 sampling at regular interval through the pit indicates mineralization is more or less consistent through the workings varying from a low of 2.46% Cg to a high of 5.11% Cg. This again supports lack of access as the likely cause of the sampling gaps.

In the event the sampling gaps were due to the absence of visible graphite within the gneiss, the 2014 sampling along with the recorded production and the lack of waste dumps would suggest there was still graphite within the non-sampled areas, but at a likely lower grade.

The only other risk associated with the El Tejon project is the price of crystalline graphite. According to the 2013 United States Geological Survey Mineral Commodities Summary for graphite estimated prices per tonne were US$1,530.

RECOMMENDATIONS

A program of detailed sampling followed by diamond drilling is recommended to move the historic estimate into a current resource. The sampling should be directed at the all existing workings, including the pit, the adits, all trenches and cuts and all roads. Sampling in the pit is best accomplished by repelling down the face at 25 metre horizontal interval along the full extent of the pit. Each line would be continuously chip sampled in two metre intervals from the lip of the pit to the sill.

All historic trenches and pits should be hand cleaned and sampled continuously at two metre intervals along the lengths of the trenches and pits. An attempt should be made to access the adits and if they prove to be safe and accessible, they should be sampled at continuous two metre intervals through their length. Finally, the access roads should be cleaned and sampled as continuously as possible along their lengths through the graphitic gneiss.

Upon completion and compilation of the sampling, a program of diamond drilling will confirm the continuation of mineralization to depth and provide continuous sampling across the full extent of the graphitic gneiss ore body. This will also assist in moving the historic estimate into a current resource. The first pass drilling should consist of 10 to 15 holes which will give one to two intersections at 50 and 100 metre depths along the full 700 metre extent of the graphitic gneiss. A budget of 2,500 metres will be more than sufficient for the first pass.

The cost of the proposed sampling program is US$200,000 as outlined in Table 11.

Table 11. Proposed Budget

Sampling							
	Project Manager	6	days	@	$750	/day	$4,500
	Project Geologist	30	days	@	$600	/day	$18,000
	Assistant	30	days	@	$150	/day	$4,500
	Assistant	30	days	@	$150	/day	$4,500
	Assistant	30	days	@	$150	/day	$4,500
	Sundries						$2,500
	Room & Board	36	days	@	$200	/day	$7,200
	Vehicle + Fuel	36	days	@	$150	/day	$5,400
	Analysis - rock	2000	sample	@	$50	/sample	$100,000
	Data verification	100	sample	@	$30	/sample	$3,000
	Travel						$7,500
	Documentation						$10,000
	Contingency						$28,400
Sampling							**$200,000**

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CERTIFICATE FOR R. TIMOTHY HENNEBERRY

I, R.Tim Henneberry, P.Geo., a consulting geologist residing at 2446 Bidston Road, Mill Bay, B.C. V0R 2P4 with an additional office at 704 – 1060 Alberni Street, Vancouver, B.C. V6E 4K2, do hereby certify that: I am the Qualified Person for:

BIG NORTH GRAPHITE CORP.
350 – 885 Dunsmuir Street
Vancouver, B.C. V6C 1N5

I earned a Bachelor of Science Degree majoring in geology from Dalhousie University, graduating in May 1980.

I am registered with the Association of Professional Engineers and Geoscientists in the Province of British Columbia as a Professional Geoscientist.

I have practiced my profession continuously for 33 years since graduation.

I have read the definition of "qualified person" set out in National Instrument 43-101 ("NI 43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101. My relevant experience for the purpose of this Technical Report is:

- 33 years of exploration experience for base and precious metals and industrial minerals in the Western Cordillera, including projects in Mexico.
- Direct relevant experience includes industrial minerals projects for: graphite, garnet, phosphate, dimension stone and aggregates.

I am responsible for the preparation of the technical report titled "43-101 Technical Report El Tejon Graphite Project" and dated February 14, 2014 relating to the El Tejon Graphite Project. I visited the El Tejon Property from January 17 to January 19, 2014.

I have not had prior involvement with the property that is the subject of the Technical Report.

As of February 14, 2014, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

I am independent of the Issuer after applying all of the tests in section 1.5 of NI 43-101.

I have read NI 43-101 and Form 43-101F, and the Technical Report has been prepared in compliance with that instrument and form.

I make this Technical Report effective February 14, 2014.

"signed and sealed"

_____
R.Tim Henneberry, P.Geo